BY U.S. MAIL

Aug. 15, 2019

Souvanny Miller
Hornecker Cowling LLP
14 N. Central Ave., Ste. 104
Medford, Oregon 97501

Courtesy copy by email: Souvanny Miller, Hornecker Cowling LLP, SM@roguelaw.com

Re: In the Matter of General Property Group LLC
OAH Case No. 2018-ABC-01716
DEQ Case No. LQ/HW-WR-2016-179

Hello,

This matter has been scheduled for a contested case hearing before the Oregon Environmental Quality Commission on **Friday, Sept. 27, 2019**, at the commission's next regular meeting, to be held in Madras. The tentative start time for this one-hour hearing is approximately 2:15 p.m.; however, I will confirm final times and specific meeting location later in August.

You may participate in the hearing by appearing in-person or by toll-free telephone line. Please let me know by Friday, Sept. 20, 2019, what method you prefer for your participation.

Closer to the meeting date, I will provide a copy of all materials sent to the commission for its consideration of this matter, as well as a general overview of the process and protocol at the contested hearing.

If you have any questions about this process please call me at 503-229-5301.

Sincerely,

Stephanie Caldera
Assistant to the Oregon Environmental Quality Commission

Cc:

- BY HAND DELIVERY – Susan Elworth, DEQ Environmental Law Specialist

HORNECKER COWLING LLP

Attorneys at Law

John Blackhurst
Joseph E. Kellerman, LL.M.
James A. Wallan
Charles E. Bolen
Ryan J. Vanderhoof
Stefanie L. Burke*
Mark S. Bartholomew
Michael J. Mayerle
Shane J. Antholz, LL.M.
Melisa A. Button*
Souvanny Miller

*Also admitted in California

14 North Central Ave., Ste. 104
Medford, OR 97501
(541) 779-8900
Fax: (541) 773-2635
www.roguelaw.com

RETIRED

Robert L. Cowling
John R. Hassen
R. Ray Heysell

Gregory T. Hornecker 1933-2009
B. Kent Blackhurst 1922-2007
Ervin B. Hogan 1927-2000

FAX TRANSMITTAL SHEET

DATE:	May 1, 2019
TO:	Environmental Quality Commission c/o Stephanie Caldera, EQC Assistant
FAX NO:	(503) 229-6762
FROM:	Souvanny Miller
RE:	OAH Case No. 2018-ABC-01716 Agency Case No. LQ/HW-WR-2016-179
PAGES:	5 (includes cover sheet)
MEMO:	Please see attached Reply Brief

[ ] An original is being mailed.
[ ] An original is being delivered.
[ ] An original is available upon request.
[X] Facsimile transmittal only.

If you do not receive all of the described material, please telephone 779-8900 immediately.

CONFIDENTIALITY NOTICE

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BEFORE THE ENVIRONMENTAL QUALITY COMMISSION

OF THE STATE OF OREGON

GENERAL PROPERTY GROUP LLC,

Respondent.

REPLY BRIEF

OAH Case No. 2018-ABC-01716
Agency Case No. LQ/HW-WR-2016-179

The penalty the Department of Environmental Quality ("DEQ") assessed against General Property Group LLC ("GPG"), and which the Administrative Law Judge ("ALJ") approved in proceedings below, is based on GPG's status as a generator. GPG is not a generator. Because GPG is not a generator, the penalty assessed against it is inapplicable.

I. If the ALJ found that GPG is not a generator, his decision is not supported by substantial evidence in the record.

As acknowledged in DEQ's Response Brief, "A generator is the person who ***first*** creates or produces the hazardous waste or subjects the waste to regulation under RCRA." DEQ Brief at 4 (emphasis added). Specifically, a "generator" is "any person, by site, whose act or process produces hazardous waste . . . or whose act ***first*** causes a hazardous waste to become subject to regulation." 40 CFR 260.10 (emphasis added). Hazardous waste is as relevant here, essentially defined as a solid waste that is dangerous. *See* 40 CFR 161.3. Solid waste, in turn, is defined as a discarded material, meaning here, "abandoned." 40 CFR 161.2(a). Abandoned may mean either stored or accumulated. 40 CFR 161.2(b)(3). Thus, a generator is a person whose act produces hazardous waste or whose act first causes a hazardous waste to be abandoned.

HORNECKER COWLING LLP
14 N. Central Ave., Ste. 104
Medford, OR 97501
541-779-8900

A reasonable person could not conclude from this record that GPG was the first entity whose act (1) produced or (2) caused the subject hazardous waste to be abandoned. In fact, DEQ acknowledges that GPG "purchased the property 'as-is'" and that "hazardous substances used in the plating process were stored on the property," at the time of purchase. *Id.* at 5. When GPG purchased the property, the hazardous materials were already present. The only evidence in the record as to the state of the property prior to DEQ's involvement, demonstrates that the hazardous materials were subject to regulation prior to GPG's purchase. Patricia Curtin testified before the ALJ that on April 10, 2015, seven months prior to Petitioner's purchase of the subject property, the premises looked the same as when GPG purchased the property, which was also the same as it looked when the DEQ Inspector saw it. She stated that on April 10, 2015 the property "was obviously not in use, it was vacant." GPG's Recording at 55:15-55:20. Thus, the hazardous materials had been abandoned, and become subject to regulation, prior to GPG's purchase. GPG cannot be considered a generator because it was not the first whose act caused this waste to become subject to regulation. Even if the ALJ determined that GPG was a generator, that finding is not supported by substantial evidence in the record.

II. ALJ assessed a civil penalty based on GPG's status as a generator. GPG is not a generator, and therefore the penalty is inapplicable.

DEQ admits that the penalty it assessed is predicated on GPG's alleged generator status. Specifically, DEQ assessed the penalty pursuant to OAR 340-012-0140(2)(a)(M)(i), which allows a $12,000 base penalty for violations of hazardous waste statutes by: "A person that is a large quantity generator or hazardous waste transporter." *See* Ex 1 to

In its Response Brief, DEQ adheres to its initial conclusion that GPG is a generator and argues that the penalty is appropriate because GPG is a generator. As discussed above, GPG is not a generator. Therefore, the penalty assessed for storing waste as a large quantity generator does not apply.

//

HORNECKER COWLING LLP
14 N. Central Ave., Ste. 104
Medford, OR 97501
541-779-8900

III. Conclusion

The Commission should find that Petitioner is not a generator and vacate the Proposed and Final Order.

DATED: May 1, 2019

HORNECKER COWLING LLP

SOUVANNY MILLER, OSB No. 174163
Of Attorneys for Petitioner
Fax: 541-779-2982 | sm@roguelaw.com
MARK S. BARTHOLOMEW, OSB No. 035662
Of Attorneys for Petitioner
Fax: 541-779-2635 | msb@roguelaw.com

CERTIFICATE OF SERVICE

I hereby certify that on May 1, 2019, I caused a true and correct copy of the foregoing REPLY BRIEF to be served on the following parties by first class mail, through the United States Mail at Medford, Oregon:

Environmental Quality Commission
c/o Richard Whitman, Director, DEQ
700 NE Multnomah Street, Suite 600
Portland, OR 97232
Fax: (503) 229-6762

Susan Elworth, Agency Representative
Environmental Quality Commission
700 NE Multnomah Street, Suite 600
Portland, OR 97232

SOUVANNY MILLER, OSB No. 174163
Of Attorneys for Petitioner
Fax: 541-779-2982 | sm@roguelaw.com

CERTIFICATE OF FILING

I hereby certify that on May 1, 2019, I caused a true and correct copy of this REPLY BRIEF to be filed with the Environmental Quality Commission on the following parties by email and facsimile:

Environmental Quality Commission
c/o Stephanie Caldera, EQC Assistant
700 NE Multnomah Street, Suite 600
Portland, OR 97232
Email: stephanie.caldera@state.or.us
Fax: (503) 229-6762

SOUVANNY MILLER, OSB No. 174163
Of Attorneys for Petitioner
Fax: 541-779-2982 | sm@roguelaw.com

HORNECKER COWLING LLP
14 N. Central Ave., Ste. 104
Medford, OR 97501
541-779-8900

Oregon
Kate Brown, Governor

Department of Environmental Quality
Office of Compliance and Enforcement
700 NE Multnomah Street, Suite 600
Portland, OR 97232-4100
(503) 229-5696
FAX (503) 229-5100

April 11, 2019

RECEIVED
APR 11 2019
Oregon DEQ
Office of the Director

Via Hand Delivery

Environmental Quality Commission
c/o Stephanie Caldera, Assistant
700 NE Multnomah Street, Suite 600
Portland, Oregon 97232

Re: Notice of Civil Penalty Assessment and Order
General Property Group, LLC
DEQ Case No. LQ/HW-WR-2016-179
OAH Case No. 2018-!BC-01716

Ms. Caldera:

Please find DEQ's Answering Brief to Respondents' Exceptions and Brief in the above-referenced matter enclosed.

Sincerely,

Susan Elworth
Environmental Law Specialist
Office of Compliance and Enforcement

cc: Via regular mail: Souvanny Miller, Hornecker Cowling LLP, 14 N. Central Avenue, Suite 104, Medford, OR 97501

BEFORE THE ENVIRONMENTAL QUALITY COMMISSION
OF THE STATE OF OREGON

IN THE MATTER OF: GENERAL PROPERTY GROUP, LLC. Respondent	))))	DEQ's ANSWERING BRIEF TO EXCEPTIONS AND BRIEF OAH No. 2018-ABC-01716 DEQ No. LQ/HW-WR-2016-179

I. COMMISSION ACTION REQUESTED

Pursuant to OAR 340-011-0575(4)(b), DEQ is filing this Answer Brief to Respondent's Exceptions and Brief. Respondent's Exceptions and Brief seeks review of a Proposed and Final Order. Respondent argues that it should not be liable for a civil penalty because it was not the generator of hazardous waste, and if it was the generator of the hazardous waste, the calculation of the civil penalty for Respondent's illegal storage of that hazardous waste was improperly calculated. In this Answering Brief, DEQ responds that the findings of fact in the Proposed and Final Order are based on substantial evidence in the hearing record and the Administrative Law Judge properly interpreted and applied the law to those facts. As such, DEQ requests that the EQC uphold the Proposed and Final Order in the above referenced case

II. FACTS AND PROCEDURAL HISTORY

On August 1, 2017, DEQ issued a Notice of Civil Penalty Assessment and Order (the Notice) to Respondent. That Notice alleged four violations, specifically that Respondent:

1. Violated ORS 466.095(1)(a) by storing hazardous waste for more than 90 days without a permit;

2. Violated a final order of DEQ by failing to comply with a Remedial Action Order issued in August 2016;

3. Violated 40 CFR 262.34(a)(1)(i), as adopted by OAR 340-100-0002, by storing hazardous waste in containers that were not handled or stored in a manner to prevent leaking; and

4. Violated OAR 340-102-0041(2) by failing to submit an annual report.

The Notice incorporated two exhibits which set forth the determination of two civil penalties, for a total penalty of $29,417. Respondent filed a timely request for a hearing in

response to the Notice. In that request for a hearing, Respondent raised no affirmative defenses nor did it dispute any allegations of fact in the Notice or incorporated exhibits.

On September 6, 2018, DEQ issued an Amended Notice of Civil Penalty Assessment and Order (Amended Notice) to Respondent. The Amended Notice alleged the same four violations set forth in the Notice. However, the Amended Notice only assessed a civil penalty for a violation of ORS 466.095(1)(a), reducing the total civil penalty to $16,217, the determination of which was set forth in the incorporated Exhibit 1. Respondent did not file a response to the Amended Notice, nor did it raise any affirmative defenses or dispute any factual allegations in the Amended Notice or the incorporated Exhibit 1.

At a hearing on October 23, 2018, an Administrative Law Judge (ALJ) reviewed Exhibits A-1 through A-22 submitted by DEQ and Exhibit R-1 submitted by Respondent, along with the testimony of two witnesses. Additionally, prior to the hearing, DEQ provided to Respondent and the ALJ sixteen federal guidance documents (*See the List of Authorities*) which were incorporated into the hearing record. After reviewing the record, the ALJ issued a Proposed and Final Order (Order), concluding that, based upon substantial evidence in the hearing record, Respondent committed the violations set forth in the Amended Notice and was liable for the $16,217 civil penalty set forth in Exhibit 1 to the Amended Notice.

III. STANDARDS OF REVIEW

All findings of fact in a proposed or final order must be based on a preponderance of the evidence and supported by substantial evidence in the record. *OAR 340-011-0545(2); ORS 183.482(8)(c)*. "Substantial evidence exists to support a finding of fact when the record, viewed as a whole, would permit a reasonable person to make that finding." *ORS 183.482(8)(c); see also Tye v. McFetridge, 342 Or 61, 73-74 (2006)* (explaining substantial evidence standard).

The EQC may substitute its judgment for that of the ALJ in making any finding of fact, conclusion of law, or order, except as limited by ORS 183.650 and OAR 137-003-0665. *OAR 340-011-0575(6)*. If the EQC modifies the Order in any substantial manner (*e.g.*, by changing a finding

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of fact or the outcome of or the basis for the Order), the EQC must identify the modification and explain the reason for the modification. *ORS 183.650(2); OAR 137-003-0665(3).*

In order to modify a finding of "historical fact," the EQC must determine that there is clear and convincing evidence in the record that the finding made by the ALJ was wrong. *ORS 183.650(3); OAR 137-003-0665(4).* The clear and convincing evidence standard means that the fact finder must believe that the evidence is fully intelligible and free from confusion and that the truth of the facts asserted is highly probable. *Riley Hill General Contractor, Inc. v. Tandy Corp., 303 Or. 390, 407, 737 P.2d 595 (1987).* The ALJ makes findings of "historical fact" when the ALJ determines that an event did or did not occur in the past or that a circumstance or status did or did not exist either before the hearing or at the time of the hearing. *ORS 183.650(3); OAR 137-003-0665(4).*

The Court of Appeals reviews final orders in contested cases under the standards set forth in ORS 183.482(8). Questions of law are reviewed to determine whether "the agency has erroneously interpreted a provision of law and that a correct interpretation compels a particular action." *ORS 183.482(8)(a).* The agency's exercise of discretion is reviewed for whether it is "(A) [o]utside the range of discretion delegated to the agency by law; (B) [i]nconsistent with an agency rule, an officially stated agency position, or a prior agency practice, if the inconsistency is not explained by the agency; or (C) [o]therwise in violation of a constitutional or statutory provision." *ORS 183.482(8)(b).* An agency's findings of fact are reviewed for substantial evidence in the record. *ORS 183.482(8)(c).*

IV. LEGAL BACKGROUND

The generation, storage, treatment, transportation and disposal of hazardous waste is governed by both state and federal law. Pursuant to OAR 340-100-0002(1), DEQ adopted many of the federal regulations (40 CFR Parts 260 to 268), commonly referred to as the Resource Conservation and Recovery Act (RCRA). RCRA is a cradle-to-grave system that regulates solid and hazardous waste from the time of generation until disposal. OAR 340-100-0002 states that DEQ "uses the federal preamble accompanying the federal regulations and federal guidance as a

basis for regulatory decision-making." Therefore, DEQ interprets RCRA regulations in a manner consistent with EPA's interpretation.

Under RCRA, solid waste is defined broadly to include any material that is actually discarded or accumulated or stored pending disposal. EPA has stated that its intention is to expand the common meaning of solid waste to include storing or accumulating waste in lieu of disposal. *See List of Authorities no. 2 at pages 2 through 4 and no. 13 at page 33091.* Hazardous waste is solid waste that is potentially dangerous either to the public health or the environment. There are two types of hazardous waste: characteristic and listed. The "listed" wastes are generated from certain industrial processes or sources. *40 CFR Part 261, subpart D.* The "characteristic" wastes have at least one of the following four characteristics: ignitable, corrosive, reactive or toxic. *40 CFR Part 261, subpart B.*

A generator is the person who first creates or produces the hazardous waste or subjects the waste to regulation under RCRA. *40 CFR 260.10.* A waste can be generated by being stored in a manner that does not indicate an intention to use the material. *List of Authorities no. 5 at page 3 and no. 13 at pages 33090 through 33094.* If a material is stored in a manufacturing unit, storage tank or other processing equipment, once the material remains in the processing unit for more than 90 days after the unit ceases to be operated, the material becomes a solid waste. *See List of Authorities no. 14 at pages 72024 through 72027.* The generator of the waste may not necessarily be the person who actually produced the waste. *See List of Authorities no. 4 at page 3.* The generator can be the person who owns the unit, building or structure that the waste is stored in. *See List of Authorities no. 5 at page 3, no. 9 at page 1, and no. 10 at page 2.*

A large quantity generator is one that generates more than 2,200 pounds per month of hazardous waste which includes the total amount accumulated on site at any one time. *See List of Authorities no. 3 at page 6, and no. 12 at page 76621.*

V. DISCUSSION

Although Respondent did not take specific exceptions to any of the ALJ's findings of fact or conclusions of law in the Order, Respondent's Brief makes two arguments. First, Respondent

argues that it was not a generator, that the ALJ did not make a finding that it was a generator, and that, therefore, the ALJ's conclusion that Respondent is liable for a civil penalty is invalid. However, the ALJ **did** find that Respondent was a generator and that finding is based on substantial evidence in the hearing record. Second, Respondent argues that DEQ did not provide adequate notice because of a typographical error in Exhibit 1 of the Amended Notice. However, Respondent's second argument is not supported by interpretations of the statutory notice requirement.

1. The ALJ correctly determined that there is substantial evidence in the hearing record that Respondent was a generator and therefore Respondent is liable for storing hazardous waste in excess of 90 days without a permit.

Respondent argues that it was not a generator, the ALJ failed to make a finding that the Respondent was a generator, and therefore the ALJ's finding of liability for the storage of hazardous waste beyond 90 days without a permit is invalid. However, Respondent's argument ignores substantial evidence in the hearing record and misapplies the law.

The facts in the hearing record show that Respondent was a generator of the waste. Respondent purchased the property "as-is," knowing that hazardous substances used in the plating process were stored on the property. *See Exhibit A- 6.* Respondent then proceeded to store those substances without making any effort to maintain the usability of those substances. *See Exhibits A-4 and A-5, and testimony of Dan Lobato and Patricia Curtin.* Some of the waste was stored in process tanks or units. *See Exhibit A-6.* Furthermore, Respondent registered with DEQ as a large quantity generator on October 20, 2016. *See Exhibit A-9.* These facts support a finding that Respondent was the generator and that finding is consistent with EPA's interpretation of its regulations regarding generators. *See List of Authorities nos. 4, 8, 9, and 14.*

Respondent misinterprets the ALJ's decision when it argues that the ALJ did not make a finding that the Respondent was a generator. On the contrary, the ALJ reached the conclusion that Respondent was the generator of the waste, as set forth in numerous instances in the Order. For example, the ALJ finds that the $12,000 base penalty was appropriately assessed by DEQ because

"GHG… is a large quantity generator." *Order at p. 14.* In addition, the ALJ's findings of fact state that, "Respondent was determined by DEQ to be a large quantity generator (LQG) of hazardous materials." *Order at p. 6.* The ALJ also determined that Respondent failed to file an annual report pursuant OAR 340-102-0041(2). *Order at p. 11.* That rule section requires *generators* of hazardous waste to file an annual report. Despite Respondent's contentions, the Order clearly demonstrates that the ALJ concluded that Respondent was a generator.

Nonetheless, Respondent argues that the ALJ found liability "sua sponte" - that is under a legal theory not argued or alleged by DEQ. *See Respondent's Brief, page 3.* Specifically, Respondent argues that the ALJ's statement, "whether a generator or not, in this case Respondent was clearly storing hazardous waste without a permit," is proof that the ALJ incorrectly determined liability. *Order, page 10.* However, Respondent's argument ignores the many times in the Order that the ALJ found that Respondent was the generator. Additionally, it takes the ALJ's statement out of context. In the Order, the ALJ explains that ORS 466.095's prohibition on storing hazardous waste without a permit has an exception for generators. Therefore, the ALJ's finding that Respondent was a generator was to "Respondent's benefit… because it granted Respondent a period of time to dispose of the hazardous waste." *Order, page 7.* As explained above, the ALJ found that Respondent was a generator, just as DEQ alleged in the Amended Notice.

Finally, Respondent argues that because Exhibit 1 of the Amended Notice cites 40 CFR 262.34(b) and not ORS 466.095(1)(a), the Amended Notice did not provide Respondent with sufficient notice to the particular sections of the statutes and rules involved, as required by ORS 183.415(2)(c). DEQ agrees with Respondent that in administrative cases, an agency must provide notice that meets the requirements in ORS 183.415(2) and that failure to do so can be, in and of itself, prejudicial. That said, Respondent misconstrues the purpose of Exhibit 1 of the Amended Notice. As the Exhibit states, it sets forth the findings and determination of the civil penalty calculation, while the Amended Notice sets forth the facts and violations. The Amended Notice clearly cites Respondent for violating ORS 466.095(1)(a). *Amended Notice, page 4, line 5.*

Additionally, Respondent's reliance upon the *Villanueva* case is unpersuasive because that case is readily distinguishable from the matter before the EQC. In the *Villanueva* case, an agency refused to clarify the issues alleged in its notice after requests to do so, and alleged an additional violation for the first time at a contested case hearing. Furthermore, the only violation upheld after the hearing was the violation added at the time of the hearing. *Villamueva v. Bd. of Psychologist Examiners, 179 Or App 134 (2002).* DEQ did not change the underlying violation at the time of the hearing and Respondent did not, at any time, request further clarification of the Amended Notice or the incorporated Exhibit 1. The ALJ upheld the same violation that DEQ alleged in its Amended Notice. Furthermore, the Oregon Court of Appeals has stated that the requirement in ORS 183.415(2)(c) is primarily to allow someone the opportunity to prepare an adequate defense. *Campbell v. Bd. of Medical Examiners, 16 Or. App. 381 (1974).* The record is clear that Respondent had knowledge of the allegations against it and was able to prepare a defense to those specific allegations. The Amended Notice provided Respondent with adequate notice.

2. The ALJ correctly upheld DEQ's assessment of a $16,217 civil penalty for the violation of storing hazardous waste without a permit.

Respondent argues that DEQ's Amended Notice failed to cite the proper subpart of a rule in Exhibit 1. Specifically, Exhibit 1 assesses a base penalty of $12,000 for a "Class I, major magnitude violation," because Respondent registered as a large quantity generator of hazardous waste. The exhibit incorrectly cites the applicable rule as OAR 340-012-0140(2)(b)(A)(*ii*) (a moderate magnitude rule) instead of OAR 340-012-0140(2)(b)(A)(*i*) (a major magnitude rule). Respondent claims that the extra "i" on the rule citation establishes an internal inconsistency, which must be read in favor of Respondent. The result, Respondent argues, is that the base penalty should be $6,000 for a moderate magnitude violation. However, Respondent has not pointed to any law, past cases or agency policy to support its contention that typographical errors should be construed against DEQ. Instead, as previously discussed, an agency must provide notice that cites to the sections of the statutes and rules involved and the purpose of that notice is to ensure there is an opportunity to prepare an adequate defense. In this case, Respondent knew that DEQ had alleged a

major magnitude as this was alleged in the magnitude section of Exhibit 1. This allegation is supported by substantial evidence in the record. *See Exhibit A16.* Respondent also knew that DEQ had alleged that it was registered as a large quantity generator as this is alleged in the base penalty section of Exhibit 1. This finding is also supported by substantial evidence in the record. *See Exhibit A9.* Respondent had the opportunity to prepare an adequate defense to those allegations and it did so at the hearing. Exhibit 1, while it contains a typographical error, did provide Respondent with adequate notice of the base penalty that DEQ alleged and which the ALJ upheld.

In addition, the adequacy of Exhibit 1 of the Amended Notice is an affirmative defense which Respondent failed to raise either in an answer to the Amended Notice, or orally to either DEQ or the ALJ prior to or during the hearing. Under OAR 340-011-0530(2), Respondent's failure to raise a defense is a waiver of that defense.

VI. CONCLUSION

In conclusion, the ALJ, after reviewing all the evidence, determined that Respondent was the generator of the hazardous waste, committed a violation by storing hazardous waste for more than 90 days, and is liable for a $16,217 civil penalty for that violation. Additionally, the Amended Notice and its incorporated Exhibit 1 provided Respondent with adequate notice of the rules and statutes DEQ used to allege violations against Respondent. DEQ requests that the EQC deny Respondent's request and uphold the Order.

April 11, 2019
Date

Susan M. Elworth
Environmental Law Specialist

CALDERA Stephanie

From: CALDERA Stephanie
Sent: Tuesday, March 12, 2019 12:39 PM
To: ELWORTH Susan
Cc: 'Souvanny Miller'
Subject: RE: Extension in Case no. LQ/HW-WR-2016-179

Hi Susan,

The commission's practice is to approve without qualification a first request for extension, so this request, made before the deadline of 5 p.m. on March 13, 2019, is approved.

The new deadline for DEQ's Answer Brief in this matter is **Friday, April 12, 2019**, to be received by 5 p.m. Following that, the other party will have 20 days in which to submit an optional Reply Brief.

I will place a copy of this email into the file for this matter.

Please let me know if you have any questions, and thanks.
- Stephanie

From: ELWORTH Susan <elworth.susan@deq.state.or.us>
Sent: Tuesday, March 12, 2019 12:25 PM
To: CALDERA Stephanie <caldera.stephanie@deq.state.or.us>
Cc: 'Souvanny Miller' <SM@roguelaw.com>
Subject: Extension in Case no. LQ/HW-WR-2016-179

Stephanie – DEQ is requesting a one-month extension to file its answer to the EQC in the above referenced matter. Please let me know if this request is approved.

Thank you – Susan

Susan M. Elworth, JD
Department of Environmental Quality
(503) 229-5152
700 NE Multnomah St., Suite 600
Portland, OR 97232

BY U.S. MAIL

Feb. 13, 2019

Souvanny Miller *or*
Mark S. Bartholomew
Hornecker Cowling LLP
14 N. Central Ave., Ste. 104
Medford, Oregon 97501

Re: In the Matter of General Property Group LLC
OAH Case No. 2018-ABC-01716
DEQ Case No. LQ/HW-WR-2016-179

Hello,

The Oregon Environmental Quality Commission received your Exceptions and Brief in this matter on Feb. 11, 2019. Your materials were received in a timely manner.

Per the administrative rules guiding this process, DEQ has until 5 p.m. on Wednesday, March 13, 2019, to submit an Answering Brief in this matter. That brief must be submitted to the commission and a copy sent to you. You will then have 20 days from that date of submittal to file a Reply Brief. Once both parties have filed all briefs in this process, this case will be scheduled at a regular commission meeting and I will provide additional information about meeting dates, times and the process for the hearing.

If you have any questions about this process please call me at 503-229-5301.

Sincerely,

Stephanie Caldera
Assistant to the Oregon Environmental Quality Commission

Cc:

- COURTESY COPY – via email, Souvanny Miller, Hornecker Cowling LLP, SM@roguelaw.com
- BY HAND DELIVERY – Susan Elworth, DEQ Environmental Law Specialist

HORNECKER COWLING LLP

Attorneys at Law

John Blackhurst
Joseph E. Kellerman, LL.M.
James A. Wallan
Charles E. Bolen
Ryan J. Vanderhoof
Stefanie L. Burke*
Mark S. Bartholomew
Michael J. Mayerle
Shane J. Antholz, LL.M.
Melisa A. Button*
Souvanny Miller

*Also admitted in California

14 North Central Ave., Ste. 104
Medford, OR 97501
(541) 779-8900
Fax: (541) 773-2635
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RETIRED

Robert L. Cowling
John R. Hassen
R. Ray Heysell

Gregory T. Hornecker 1933-2009
B. Kent Blackhurst 1922-2007
Ervin B. Hogan 1927-2000

FAX TRANSMITTAL SHEET

DATE:	February 11, 2019
TO:	Environmental Quality Commission c/o Richard Whitman, Director, DEQ
FAX NO:	(503) 229-6762
FROM:	Souvanny Miller
RE:	OAH Case No. 2018-ABC-01716 Agency Case No. LQ/HW-WR-2016-179
PAGES:	7 (includes cover sheet)
MEMO:	Please see attached Exceptions and Brief

[ ] An original is being mailed.
[ ] An original is being delivered.
[ ] An original is available upon request.
[X] Facsimile transmittal only.

If you do not receive all of the described material, please telephone 779-8900 immediately.

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BEFORE THE ENVIRONMENTAL QUALITY COMMISSION

OF THE STATE OF OREGON

GENERAL PROPERTY GROUP LLC,

Petitioner.

EXCEPTIONS AND BRIEF

OAH Case No. 2018-ABC-01716
Agency Case No. LQ/HW-WR-2016-179

EXCEPTIONS

Petitioner takes exception to the Administrative Law Judge's ("ALJ") finding that Petitioner is liable for a civil penalty calculated because of or based on its status as a generator. Petitioner also takes exception to the ALJ's calculation of the base penalty at $12,000.

BACKGROUND

Petitioner purchased the subject property in 2015 from a plating business, which, according to the City of Medford, closed in 2014. *See e.g.* REC 294. In that purchase, Petitioner inherited hazardous wastes that were already on the property. Since that time, Petitioner has spent over $40,000 remediation efforts for hazardous waste that it did not produce or abandon. The record suggests that the prior owner was produced the hazardous waste and abandoned it significantly prior to Petitioner's purchase. For instance, Patricia Curtin testified before the ALJ that on April 10, 2015, seven months prior to Petitioner's purchase of the subject property, the premises looked the same as when Petitioner purchased the property and when the DEQ Inspector saw it. She stated "it was obviously not in use, it was vacant." Petitioner's Recording at 55:15-55:20. She explained that it was dusty and there were cobwebs. She further explained that in the chemical room there was a dark substance leaking across the floor. After purchasing the property, Petitioner contacted an environmental consultant. REC 1-2. This was prior to any DEQ involvement.

//

//

HORNECKER COWLING LLP
141 N. Central Ave., Ste. 104
Medford, OR 97501
541-779-8900

ARGUMENT

The ALJ improperly assessed a civil penalty against Petitioner due to defects in DEQ's Amended Notice of Civil Penalty Assessment and Order ("Notice"). If Petitioner is subject to a fine despite these defects, the ALJ erred in assessing a higher base penalty than was alleged in the Notice.

I. The Administrative Law Judge exceeded his authority by assessing a civil penalty for a violation not adequately pled in DEQ's Notice to Petitioner, and for which DEQ did not seek a penalty.

ALJ Conclusions of Law: "Respondent stored hazardous waste for more than 90 days without a permit, violating ORS 466.095(1)(a)" and due to this violation, "Respondent must pay a civil penalty in the amount of $16,217."

DEQ, in its Notice of Civil Penalty Assessment and Order ("Notice"), cited Petitioner "as a large quantity generator." DEQ calculated the civil penalty based on a violation of 40 CFR 262.34—the provisions of which apply only to generators. *See* Ex 1 to the Notice. DEQ concluded that "*As a large quantity generator* of hazardous waste who does not have a hazardous waste storage or disposal permit, Respondent may only store hazardous waste for 90 days, pursuant to CFR 262.34(a)."

Thus, to assess any civil penalty against Petitioner for the alleged violation, the ALJ was required to make findings that (1) Petitioner is a generator, and (2) that Petitioner violated 40 CFR 262.34(a), by "accumulating hazardous waste on-site" for more than 90 days without a permit. The ALJ did not make those findings.

Indeed, the record supports a finding that Petitioner is not a generator. Pursuant to federal regulations, as adopted by state regulations, a "generator" is "any person, by site, whose act or process produces hazardous waste . . . or whose act first causes a hazardous waste to become subject to regulation." 40 CFR 260.10. Hazardous waste is as relevant here, essentially defined as a solid waste that is dangerous. *See* 40 CFR 161.3. Solid waste, in turn, is defined as a discarded material, meaning here, "abandoned." 40 CFR 161.2(a). Abandoned may mean either stored or accumulated.

40 CFR 161.2(b)(3). Thus, a generator is a person whose act produces hazardous waste or whose act first causes a hazardous waste to be abandoned. Petitioner is neither.

Nonetheless, DEQ's Notice alleged violations of rules and statutes, based on Petitioner's status as a large quantity generator. For instance, Exhibit 1 to the Notice, the Findings and Determination of Respondent's Civil Penalty, does not refer to ORS 466.095(1)(a). The Findings and Determination relating to the civil penalty are solely based on the alleged violation of 40 CFR 262.34, and Petitioner's alleged status as a generator. Notice, Ex 1. Similarly, DEQ assessed a base penalty under OAR 340-012-0140(2)(a)(M)(i), which allows a civil penalty for violations by any "person that is a large quantity generator or hazardous waste transporter." DEQ maintained its position that Petitioner is a generator during the hearing.

The ALJ found a violation under ORS 466.095, reasoning that "whether a generator or not, in this case Respondent was clearly storing hazardous waste without a permit." Moreover, the ALJ assessed the penalty based on the alleged violation of ORS 466.095, although DEQ did not assess a penalty based on that violation. The ALJ's *sua sponte* analysis and conclusion was beyond the scope of DEQ's penalty assessment.

More specifically, Petitioner was not provided adequate notice of the violations against it. As discussed above, Petitioner is not a large quantity generator, but DEQ relied exclusively on its status as such in determining the violations and assessing a civil penalty. In contested cases, parties must be given an opportunity for hearing after reasonable notice. ORS 183.415(2). That notice must include "a reference to the particular sections of the statutes and rules involved," as well as "a short and plain statement of the matters asserted or charged." ORS 183.415(3). DEQ's inappropriate reliance on the generator provisions made its notice inadequate. Petitioner was not appropriately alerted of its potential liability as a non-generator.

"The absence of adequate notice is prejudicial in and of itself." *Villanueva v. Bd. of Psychologist Examiners*, 179 Or App 134, 138 (2002). In civil actions, including agency enforcement actions "the parties are limited to the issues that are raised by the pleadings, unless

they explicitly or impliedly consent to try additional issues." *Id.* The Oregon Court of Appeals has compared an agency's enforcement notice with criminal charges, noting that the state may not convict a criminal defendant for a crime for which the defendant has not been charged. *Id.* Similarly, inadequate notice by an agency precludes enforcement actions. As a matter of law, Petitioner is not liable for the civil penalty assessed against it, because it is not a generator.

DEQ's passing reference to ORS 466.095 is inadequate to provide an alternative basis for the civil penalty. *See* Notice, Section III.1. Petitioner notes that although DEQ concluded that Petitioner had violated ORS 466.095(1)(a), this conclusion was derivative of its erroneous decision that Petitioner was a generator. In fact, DEQ's reference reads "Respondent violated ORS 466.095(1)(a) by storing hazardous waste for more than 90 days without a permit," although that statute makes no reference to 90 days. Again, no penalty was assessed based on Petitioner's alleged violation of ORS 466.095.

II. The Administrative Law Judge erred in assessing a base penalty greater than the penalty alleged in the Notice.

ALJ Finding: "DEQ contends that the violations in this case constitute a Class I, major magnitude violation by GPG, which is a large quantity generator of hazardous waste. I agree with DEQ that the appropriate base penalty is $12,000."

The ALJ erroneously calculated the base penalty based on Petitioner's status as a generator, which it is not. But even if Petitioner can be considered a generator and even if ALJ had authority to assess a penalty on a violation that DEQ failed to adequately plead, and for which DEQ did not seek a penalty, the ALJ's calculation of the civil penalty was incorrect.

Exhibit 1 to the Notice outlines DEQ's penalty determination according to the civil penalty formula. Each value in that formula is further defined and applied to the violation according to the relevant administrative rule or rules. DEQ's determination of the Base Penalty or "BP" in Exhibit 1, is internally inconsistent. The Notice first explains that the BP is $12,000 due to the major magnitude of the violation, but then goes on to state that the violation is listed in OAR 340-012-

0140(2)(b)(A)(ii), which is a moderate violation. Because it is DEQ's imperative to adequately provide notice of violations and penalties, any inconsistency in the Notice should be construed against the drafter. The Commission should find that the applicable base penalty is the one listed in OAR 340-012-0140(2)(b)(A)(ii), or $6,000 for moderate violations.

III. Conclusion

The Commission should find that Petitioner is not a generator and that DEQ's notice was inadequate and vacate the Proposed and Final Order. Alternatively, the Commission should reduce the base penalty to $6,000 and remand to the ALJ for recalculation.

DATED: February 11, 2019

HORNECKER COWLING LLP



SOUVANNY MILLER, OSB No. 174163
Of Attorneys for Petitioner
Fax: 541-779-2982 | sm@roguelaw.com
MARK S. BARTHOLOMEW, OSB No. 035662
Of Attorneys for Petitioner
Fax: 541-779-2635 | msb@roguelaw.com

CERTIFICATE OF SERVICE

I hereby certify that on February 11, 2019, I caused a true and correct copy of the foregoing EXCEPTIONS AND BRIEF to be served on the following parties by first class mail, through the United States Mail at Medford, Oregon:

Environmental Quality Commission
c/o Richard Whitman, Director, DEQ
700 NE Multnomah Street, Suite 600
Portland, OR 97232
Fax: (503) 229-6762

Susan Elworth, Agency Representative
Environmental Quality Commission
700 NE Multnomah Street, Suite 600
Portland, OR 97232

SOUVANNY MILLER, OSB No. 174163
Of Attorneys for Petitioner
Fax: 541-779-2982 | sm@roguelaw.com

CERTIFICATE OF FILING

I hereby certify that on February 11, 2019, I caused a true and correct copy of this EXCEPTIONS AND BRIEF to be filed with the Environmental Quality Commission on the following parties by email and first class mail, through the United States Mail at Medford, Oregon:

Environmental Quality Commission
c/o Stephanie Caldera, EQC Assistant
700 NE Multnomah Street, Suite 600
Portland, OR 97232
Email: stephanie.caldera@state.or.us

SOUVANNY MILLER, OSB No. 174163
Of Attorneys for Petitioner
Fax: 541-779-2982 | sm@roguelaw.com

CALDERA Stephanie

From: CALDERA Stephanie
Sent: Friday, February 1, 2019 9:58 AM
To: 'Sabrina N. Carey'
Cc: Souvanny Miller; ELWORTH Susan
Subject: RE: Request for Extension

Hello,

I received your request for extension, and have copied DEQ's Environmental Law Specialist in this matter to this reply. I understand that DEQ does not object to the one-week extension as requested, and the extension is granted.

Please submit the Exceptions and Brief for this matter by 5 p.m. on Monday, Feb. 11, 2019. Please let me know if you have additional questions.

Thank you,
Stephanie

Stephanie Caldera
Policy analyst
Oregon DEQ, headquarters office
700 NE Multnomah Street, Suite 600, Portland Oregon 97232
Phone: 503-229-5301

From: Sabrina N. Carey <snc@roguelaw.com>
Sent: Thursday, January 31, 2019 1:07 PM
To: CALDERA Stephanie <caldera.stephanie@deq.state.or.us>
Cc: Souvanny Miller <SM@roguelaw.com>
Subject: Request for Extension

Please see the attached Request for Extension.

Sabrina Carey
Legal Assistant to:
Souvanny Miller
Hornecker Cowling LLP
14 N. Central Avenue, Suite 104
Medford, OR 97501
541.779.8900 office
541.773.2635 fax
snc@roguelaw.com
www.roguelaw.com

HORNECKER COWLING HC

HORNECKER COWLING LLP

Attorneys at Law

John Blackhurst
Joseph E. Kellerman, LL.M.
James A. Wallan
Charles E. Bolen
Ryan J. Vanderhoof
Stefanie L. Burke*
Mark S. Bartholomew
Michael J. Mayerle
Shane J. Antholz, LL.M.
Melisa A. Button*
Souvanny Miller

*Also admitted in California

14 North Central Ave., Ste. 104
Medford, OR 97501
(541) 779-8900
Fax: (541) 773-2635
www.roguelaw.com

RETIRED

Robert L. Cowling
John R. Hassen
R. Ray Heysell

Gregory T. Hornecker 1933-2009
B. Kent Blackhurst 1922-2007
Ervin B. Hogan 1927-2000

FAX TRANSMITTAL SHEET

DATE:	January 31, 2019
TO:	Environmental Quality Commission c/o Richard Whitman, Director, DEQ
FAX NO:	(503) 229-6762
FROM:	Souvanny Miller
RE:	OAH Case No. 2018-ABC-01716 Agency Case No. LQ/HW-WR-2016-179
PAGES:	3 (includes cover sheet)
MEMO:	Please see attached Request for Extension

[ ] An original is being mailed.
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BEFORE THE ENVIRONMENTAL QUALITY COMMISSION

OF THE STATE OF OREGON

GENERAL PROPERTY GROUP LLC,

Petitioner.

REQUEST FOR EXTENSION OF TIME TO FILE EXCEPTIONS AND BRIEF

OAH Case No. 2018-ABC-01716
Agency Case No. LQ/HW-WR-2016-179

REQUEST FOR EXTENSION

Petitioner hereby requests a one-week extension of the time to file its exceptions and brief pursuant to OAR 340-011-0575. This is the first request for an extension. The current due date is 5:00 p.m. on February 4, 2019. Petitioner requests an extension until 5:00 p.m. on February 11, 2019.

DATED: January 31, 2019

SOUVANNY MILLER, OSB No. 174163
Of Attorneys for Petitioner
Fax: 541-779-2982 | sm@roguelaw.com
MARK S. BARTHOLOMEW, OSB No. 035662
Of Attorneys for Petitioner
Fax: 541-779-2635 | msb@roguelaw.com

HORNECKER COWLING LLP
14 N. Central Ave., Ste. 104
Medford, OR 97501
541-779-8900

CERTIFICATE OF SERVICE

I hereby certify that on January 31, 2019, I caused a true and correct copy of this Request for Extension to be served on the following parties by fax or first class mail, through the United States Mail at Medford, Oregon:

Environmental Quality Commission
c/o Richard Whitman, Director, DEQ
700 NE Multnomah Street, Suite 600
Portland, OR 97232
Fax: (503) 229-6762

Susan Elworth, Agency Representative
Environmental Quality Commission
700 NE Multnomah Street, Suite 600
Portland, OR 97232

SOUVANNY MILLER, OSB No. 174163
Of Attorneys for Petitioner
Fax: 541-779-2982 | sm@roguelaw.com

CERTIFICATE OF FILING

I hereby certify that on January 31, 2019, I caused a true and correct copy of this Request for Extension to be filed with the Environmental Quality Commission on the following parties by first class mail, through the United States Mail at Medford, Oregon:

Environmental Quality Commission
c/o Stephanie Caldera, EQC Assistant
700 NE Multnomah Street, Suite 600
Portland, OR 97232

SOUVANNY MILLER, OSB No. 174163
Of Attorneys for Petitioner
Fax: 541-779-2982 | sm@roguelaw.com

HORNECKER COWLING LLP
14 N. Central Ave., Ste. 104
Medford, OR 97501
541-779-8900

BY CERTIFIED MAIL

Jan. 9, 2019

Mark S. Bartholomew
Hornecker Cowling LLP
14 North Central Ave., Ste. 104
Medford, Oregon 97501

Re: In the Matter of General Property Group LLC
OAH Case No. 2018-ABC-01716
DEQ Case No. LQ/HW-WR-2016-179

Hello,

The Oregon Environmental Quality Commission received your request for commission review on Jan. 4, 2019. Your request was received in a timely manner.

Per the administrative rules guiding this process, you have 30 calendar days from the date of the initial filing to file your Exceptions and Brief. That deadline falls on Sunday, Feb. 3, 2019, so the materials are **due received by 5 p.m.** the following business day, **Monday, Feb. 4, 2019**. This is a required filing in the contested case process.

A copy of the Oregon administrative rules guiding this contested case process is enclosed with this letter. These rules outline the specific items and components for your Exceptions and Brief and other documents in this contested case process.

Please send your exceptions and brief to Stephanie Caldera, EQC assistant, at 700 NE Multnomah Street, Suite 600, Portland, Oregon 97232, with a copy to Susan Elworth, Environmental Law Specialist, at the same address.

Once both parties have filed all briefs in this process, this case will be scheduled at a regular commission meeting.

If you have any questions about this process please call me at 503-229-5301.

Sincerely,

Stephanie Caldera
Assistant to the Oregon Environmental Quality Commission

Enclosure: Copy of OAR 340-011-0575

Cc: BY HAND DELIVERY – Susan Elworth, DEQ Environmental Law Specialist

Oregon Administrative Rules governing contested cases before the Oregon Environmental Quality Commission

OAR 340-011-0575

Review of Proposed Orders in Contested Cases

(1) For purposes of this rule, filing means receipt in the office of the director or other office of the department.

(2) Commencement of Review by the Commission: The proposed order will become final unless a participant or a member of the commission files, with the commission, a Petition for Commission Review within 30 days of service of the proposed order. The timely filing of a Petition is a jurisdictional requirement and cannot be waived. Any participant may file a petition whether or not another participant has filed a petition.

(3) Contents of the Petition for Commission Review. A petition must be in writing and need only state the participant's or a commissioner's intent that the commission review the proposed order. Each petition and subsequent brief must be captioned to indicate the participant filing the document and the type of document (for example: Respondents Exceptions and Brief; Department's Answer to Respondent's Exceptions and Brief).

(4) Procedures on Review:

(a) Exceptions and Brief: Within 30 days from the filing of a petition, the participant(s) filing the petition must file written exceptions and brief. The exceptions must specify those findings and conclusions objected to, and also include proposed alternative findings of fact, conclusions of law, and order with specific references to the parts of the record upon which the participant relies. The brief must include the arguments supporting these alternative findings of fact, conclusions of law and order. Failure to take an exception to a finding or conclusion in the brief, waives the participant's ability to later raise that exception.

(b) Answering Brief: Each participant, except for the participant(s) filing that exceptions and brief, will have 30 days from the date of filing of the exceptions and brief under subsection (5)(a), in which to file an answering brief.

(c) Reply Brief: If an answering brief is filed, the participant(s) who filed a petition will have 20 days from the date of filing of the answering brief under subsection (5)(b), in which to file a reply brief.

(d) Briefing on Commission Invoked Review: When one or more members of the commission wish to review the proposed order, and no participant has timely filed a Petition, the chair of the commission will promptly notify the participants of the issue that the commission desires the participants to brief. The participants must limit their briefs to those issues. The chair of the commission will also establish the schedule for filing of briefs. When the commission wishes to review the proposed order and a participant also requested review, briefing will follow the schedule set forth in subsections (a), (b), and (c) of this section.

(e) Extensions: The commission or director may extend any of the time limits contained in section (5) of this rule. Each extension request must be in writing and filed with the commission before the expiration of the time limit. Any request for an extension may be granted or denied in whole or in part.

(f) Dismissal: The commission may dismiss any petition, upon motion of any participant or on its own motion, if the participant(s) seeking review fails to timely file the exceptions or brief required under subsection (5)(a) of this rule. A motion to dismiss made by a participant must be filed within 45 days after the filing of the Petition. At the time of dismissal, the commission will also enter a final order upholding the proposed order.

(g) Oral Argument: Following the expiration of the time allowed the participants to present exceptions and briefs, the matter will be scheduled for oral argument before the commission.

(5) Additional Evidence: A request to present additional evidence must be submitted by motion and must be accompanied by a statement showing good cause for the failure to present the evidence to the administrative law judge. The motion must accompany the brief filed under subsection (5)(a) or (b) of this rule. If the commission grants

the motion or decides on its own motion that additional evidence is necessary, the matter will be remanded to an administrative law judge for further proceedings.

(6) Scope of Review: The commission may substitute its judgment for that of the administrative law judge in making any particular finding of fact, conclusion of law, or order except as limited by OAR 137-003-0655 and 137-003-0665.

(7) Service of documents on other participants: All documents required to be filed with the commission under this rule must also be served upon each participant in the contested case hearing. Service can be completed by personal service, certified mail or regular mail.

Stat. Auth.: ORS 183.341 & 468.020
Stats. Implemented: ORS 183.460, 183.464 & 183.470
Hist.: DEQ 78, f. 9-6-74, ef. 9-25-74; DEQ 115, f. & ef. 7-6-76; DEQ 25-1979, f. & ef. 7-5-79; DEQ 7-1988, f. & cert. ef. 5-6-88; DEQ 1-2000(Temp), f. 2-15-00, cert. ef. 2-15-00 thru 7-31-00; DEQ 9-2000, f. & cert. ef. 7-21-00; Renumbered from 340-011-0132 by DEQ 18-2003, f. & cert. ef. 12-12-03; DEQ 5-2008, f. & cert. ef. 3-20-08

HORNECKER COWLING LLP

Attorneys at Law

John Blackhurst
Joseph E. Kellerman, LL.M.
James A. Wallan
Charles E. Bolen
Ryan J. Vanderhoof
Stefanie L. Burke*
Mark S. Bartholomew
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14 North Central Ave., Ste. 104
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Fax: (541) 773-2635
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Ervin B. Hogan 1927-2000

FAX TRANSMITTAL SHEET

DATE:	January 4, 2019
TO:	Environmental Quality Commission c/o Richard Whitman, Director, DEQ
FAX NO:	(503) 229-6762
FROM:	Mark S. Bartholomew
RE:	OAH Case No. 2018-ABC-01716 Agency Case No. LQ/HW-WR-2016-179
PAGES:	3 (includes cover sheet)
MEMO:	Please see attached Petition for Commission Review

[ ] An original is being mailed.
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BEFORE THE ENVIRONMENTAL QUALITY COMMISSION

OF THE STATE OF OREGON

GENERAL PROPERTY GROUP LLC,

Petitioner.

PETITION FOR COMMISSION REVIEW

OAH Case No. 2018-ABC-01716
Agency Case No. LQ/HW-WR-2016-179

PETITION FOR REVIEW

Petitioner, General Property Group LLC hereby appeals the Office of Administrative Hearings proposed and final order in the above-captioned case, which was mailed on December 6, 2018. Petitioner desires Commission review of the order.

DATED: January 4, 2019

MARK S. BARTHOLOMEW, OSB No. 035662
Of Attorneys for Petitioner
Fax: 541-779-2635 | msb@roguelaw.com

HORNECKER COWLING LLP
14 N. Central Ave., Ste. 104
Medford, OR 97501
541-779-8900

CERTIFICATE OF SERVICE

I hereby certify that on January 4, 2019, I caused a true and correct copy of this PETITION FOR REVIEW to be served on the following parties by first class mail, through the United States Mail at Medford, Oregon:

Environmental Quality Commission
c/o Richard Whitman, Director, DEQ
700 NE Multnomah Street, Suite 600
Portland, OR 97232
Fax: (503) 229-6762

Susan Elworth, Agency Representative
Environmental Quality Commission
700 NE Multnomah Street, Suite 600
Portland, OR 97232

MARK S. BARTHOLOMEW, OSB No. 035662
Of Attorneys for Petitioner
Fax: 541-779-2635 | msb@roguelaw.com

HORNECKER COWLING LLP
14 N. Central Ave., Ste. 104
Medford, OR 97501
541-779-8900

BEFORE THE OFFICE OF ADMINISTRATIVE HEARINGS
STATE OF OREGON
for the
ENVIRONMENTAL QUALITY COMMISSION

IN THE MATTER OF:	)	**PROPOSED AND FINAL ORDER**
	)	
GENERAL PROPERTY GROUP LLC	)	OAH Case No. 2018-ABC-01716
	)	Agency Case No. LQ/HW-WR-2016-179
	)	
	)	
	)	

HISTORY OF THE CASE

On August 1, 2017, the Department of Environmental Quality (DEQ) issued a Notice of Civil Penalty Assessment to General Property Group, LLC (Respondent).[1] On September 26, 2017, Attorney James Stout requested a hearing on Respondent's behalf. Thereafter, Attorney Mark Bartholomew replaced Mr. Stout as counsel for Respondent.

On June 6, 2018, DEQ referred the hearing request to the Office of Administrative Hearings (OAH). The OAH assigned Senior Administrative Law Judge (ALJ) Jennifer Rackstraw to preside at hearing. ALJ Rackstraw convened a prehearing conference on August 16, 2018, at which time the parties agreed to hold the hearing on October 23, 2018. The matter was later reassigned to ALJ Rick Barber to hold the hearing.

A telephone hearing was held as scheduled on October 23, 2018. Mr. Bartholomew represented Respondent. Environmental Law Specialist Susan Elworth represented DEQ. DEQ Hazardous Waste Compliance Specialist Dan Lobato testified for DEQ; LLC member Patricia Curtin testified for Respondent. The hearing record closed on October 23, 2018, following receipt of Respondent's revised exhibit packet.

ISSUES

1. Whether Respondent stored hazardous waste for more than 90 days without a permit, violating ORS 466.095(1)(a).

2. Whether Respondent violated a DEQ final order by failing to comply with a Remedial Action Order (RAO).

3. Whether Respondent stored hazardous waste in containers that were not handled or stored in a manner that would prevent leaking, violating 40 CFR 262.34(a)(1)(i).

[1] On September 6, 2018, DEQ issued an Amended Notice to Respondent. The Amended Notice retained the same alleged violations but withdrew one of the two penalty assessments.

4. Whether Respondent failed to submit a timely annual report, violating OAR 340-102-0041(2).

5. Whether, if Respondent committed the first violation, it must pay a civil penalty in the amount of $16,217.[2]

EVIDENTIARY RULINGS

Exhibits A1 through A22, offered by DEQ, were admitted into evidence without objection. Exhibit R1 was offered by Respondent, was reintroduced with fewer pages,[3] and the revised version of Exhibit R1 was admitted into evidence without objection.

FINDINGS OF FACT

1. The building located at 702 Grape Street in Medford, Oregon (the property) was formerly the location of a metal plating company variously called Medford Plating and South Valley Plating. Its owner, Steven McGhehey, sold the business and the building some time prior to 2015, then had to take the building and business back after the sale fell through. In November 2015, McGhehey sold the building to Respondent for $145,000. The closing documents included the following terms and statements:

> ADDITIONAL PROVISIONS AND CONDITIONS TO PURCHASE: Selling agent is related to buying company's manager. Buyer may obtain private money financing to be handled through escrow. Transaction is not contingent on financing.
>
> * * * * *
>
> The following property, in AS IS condition is <u>included</u> as a part of the property being purchased: All equipment currently located at the property to be included in sale.
>
> * * * * *
>
> [As part of an accepted Seller's Counteroffer]:
>
> * * * * *

[2] DEQ is not seeking penalties for any of the other violations.

[3] Respondent's initial submission of Exhibit R1 consisted of 475 pages, and for reasons unclear was not provided to or received by DEQ prior to the hearing. The hearing was halted for approximately an hour so that Respondent's counsel could reduce the number of documents, provide them via email to Ms. Elworth, and give Ms. Elworth an opportunity to review them in hopes that the hearing would not need to be postponed. The parties proceeded to hearing and Mr. Bartholomew provided a revised Exhibit R1, with fewer pages. That new Exhibit R1 supersedes and replaces the original 475-page exhibit.

> * * * Seller is aware of the following issues: Line 238: *There are hazardous substances*. Line 239: There are structural defects. Seller to have 5 business days to obtain First Lien Holders' approval for payoff of recorded First Trust Deed.

(Ex. A6 at 22, 23 and 30; underline in original, italic emphasis added).

2. Patricia Curtin has been a member of Respondent LLC since some time in 2017. She is the sister of Kevin Curtin, who previously was the sole member of the LLC. (Test. of Patricia).[4] Patricia is a real estate broker in Grants Pass, handling both residential and commercial transactions. She represented the seller, McGhehey, in the sale of the property to Respondent. (Ex. A6 at 17-19). Patricia also served as Respondent's contact with DEQ and with the environmental companies involved in the cleanup. (Test. of Lobato, Curtin).

3. On February 1, 2016, an official from the City of Medford sent a letter to McGhehey, the previous owner of Medford Plating/South Valley Plating,[5] to inform him that the company's Industrial Waste Discharge Permit (IWDP) had expired as of November 4, 2015, the date the real property was sold to Respondent. The letter stated in part:

> Regarding the sale on November 4, 2015 of the South Valley Plating building at 702 S. Grape St. Medford, OR 97501 the Regional Water Reclamation Facility (RWRF) was under the understanding that the new owner may continue to operate the facility as a plating shop[.] * * * The RWRF was withholding action on the existing permit pending information from the new ownership. Recent information indicates they will not be requesting a permit transfer for continued use of the facility as permitted. Given that, the RWRF is terminating the South Valley Plating's existing IWDP by modifying the permit expiration date retroactive to the date of sale.

(Ex. A4).

4. After the permit expired, the City continued to be concerned about the status of the hazardous materials stored in the former plating facility in light of the sale and apparent non-continuation of the plating business. The City filed a complaint with DEQ on July 7, 2016. The complaint stated in part:

> We have a situation here regarding a former 40 CFR 413 metal finisher (Medford Plating) in which the facility ceased operations in 2014. This is a plating shop that has been in operation since the 1960's. The then owner sold the building in November 2015 "as is" to an LLC who is now the legal owner. The building was sold with Chrome and Nickel plating bath tanks that contained up to 1000 gallons each of plating chemical. We terminated the existing IWDP as of the date of sale

[4] I refer to the Curtin's by their given names to give clarity to the narrative.

[5] It is unclear whether "South Valley Plating" and "Medford Plating" are the same company, or whether they were separate iterations of the business run by McGhehey.

> and have been trying to gain access to the building since November in order to do a site inspection and confirm the condition of the facility. The building owner has been non cooperative and has refused access stating that he's not discharging and has not applied for nor been issued an 1WDP.

(Ex. A3 at 2).

5. DEQ assigned the investigation of the City's complaint to Dan Lobato, who was also initially unsuccessful in gaining entry to the property. After several email communications, and after informing Respondent that DEQ was going to search the premises pursuant to a warrant on August 10, 2016, (Ex. R1 at 244-246), Lobato was finally granted access to the building on August 9, 2016. He met with Scott Pieper from SMAF Environmental, who had been hired by Patricia on behalf of the LLC. DEQ's Craig Filip also attended the meeting and took photographs of the facility. Pieper granted access to Lobato and Filip, and also provided a written inventory of all of the chemicals and waste products found in the facility. Lobato viewed the plating room, the chemical storage room, the polishing room, and areas outside the building. (Ex. A6 at 2).

6. The plating room had eleven process tanks, or vats. There were also five 250-gallon totes and two small containers of spent filters. (Ex. A6; photo 15-32).

7. The chemical storage room contained numerous containers of hazardous chemicals, including one container of unichrome (chromic oxide) that was leaking onto the concrete floor. There were also several spent fluorescent bulbs on the floor. (Ex. A6; photo 34-58).

8. In the polishing room, there was a 55-gallon drum filled with dust and other waste that had been deposited in the barrel through the building's dust collection system. (Ex. A6; photos 59-61 and 8).

9. There were several areas outside the building that Lobato inspected. Outside the chemical storage room, in an alcove, there were three large tanks and an additional grouping of spent fluorescent light bulbs on the cement. (Ex. A6; photo 12). In another spot outside, there were some containers on their sides (empty), and two open vats with small amounts of rainwater in them. There were also several drains and two large sumps containing liquid sludge. (*Id.* at 2).

10. After reviewing the premises and concluding that the City's complaint was accurate, Lobato recommended that DEQ issue a Remedial Action Order (RAO) to Respondent. On August 30, 2016, DEQ issued the RAO and a cover letter, which stated in part:

> DEQ issued this Order because you purchased a property located at 702 S Grape Street in Medford where you have allowed the storage of large amounts of known and potentially hazardous substances, including nickel and copper plating solutions and acids. Some of these wastes are currently leaking or have leaked in the past. As the owner of the facility at which hazardous substances are stored, you are responsible for taking "remedial action" including managing the

> substances to prevent further releases and the proper disposal of any wastes.
>
> The Order requires you to determine which substances are solid or hazardous waste, to dispose of those wastes, and to provide documentation to DEQ. For your safety and to ensure compliance with all applicable laws, all work should be done by an environmental contractor. Hazardous waste must be transported with a manifest by a licensed hazardous waste transporter. Some items may still be useable or recyclable. Prior to disposing of any materials, please contact Dan Lobato at [phone number].
>
> DEQ will be taking further enforcement action in the form of a civil penalty for violations of hazardous waste laws. Your prompt compliance with the Order will mitigate this penalty. If you fail to comply with the Order and/or additional violations occur, those violations will also be subject to civil penalties and/or injunctive relief[.]

(Ex. A10 at 1).

11. The RAO required Respondent, among other things, to prepare a plan for DEQ approval within 30 days; to complete the work under an approved plan within 30 days; and to submit all documentation for the completion of the work within 30 days of completion of the work. The documentation Respondent was required to provide included hazardous waste manifests documenting the removal and transport of all solid and hazardous waste from the property. (*Id.* at 7). The RAO and letter were served on Respondent on September 16, 2016. (*Id.* at 9).

12. On September 20, 2016, Respondent notified DEQ that Pieper and SMAF Environmental would be the project manager for the cleanup. Pieper intended to use NRC Environmental to do the cleanup and transport of the hazardous materials. (Ex. A17 at 7).

13. On September 30, 2016, DEQ served a Pre-Enforcement (PEN) Notice on Respondent, advising Respondent of the perceived violations and requiring corrective actions. (Ex. A11). DEQ had also contemplated issuing a PEN to McGhehey, as a previous producer and generator, but did not do so. (Test. of Lobato).

14. The first compliance date was October 7, 2016, the date for plan submission. At Respondent's request, through Pieper from SMAF, the deadline to submit the plan for approval was extended to October 28, 2016. Respondent submitted the work plan to DEQ on October 27, 2016, and DEQ approved the plan, setting the work completion date at November 26, 2016. (Ex. A17 at 2). Pieper informed Patricia that the work under the work plan needed to be completed by the November 26 date in order to comply with the RAO. (Ex. R1 at 106).

15. On November 4, 2016, Pieper informed Lobato that NRC's schedule would not allow them to complete the job by November 26. He requested an extension on Respondent's behalf, and DEQ granted an extension through December 9, 2016. (Ex. A17 at 2).

16. After Pieper obtained the extension on Respondent's behalf, he urged Respondent to approve the NRC bid so the work could begin. Pieper warned Respondent on November 16, 2016 and November 21, 2016, that an answer was needed immediately or he would have to cancel NRC's appointment to begin cleanup on November 28, 2016. (Ex. R1 at 154, 156). When Respondent did not return his messages, Pieper canceled the November 28 cleanup. (*Id.* at 157).

17. After the cancellation, Pieper sought assurance from Respondent that it was intending to go through with the cleanup project. Unhappy with the NRC bid to clean up and transport the hazardous waste, Respondent asked Pieper to make a bid to do part of the work separate from NRC, indicating that it was looking for other companies to do the rest of the work. Pieper, perceiving that Respondent was now acting as its own project manager when it solicited other bids, withdrew from involvement in the project on December 2, 2016. (Ex. R1 at 161). On February 8, 2017, Pieper sent one last email to Respondent, reminding Patricia that the company needed to file an annual report on or before March 1, 2017. (*Id.* at 165).

18. On December 2, 2016, Respondent informed DEQ that Pieper and SMAF were no longer the project managers on the cleanup. Respondent indicated they were currently working with Clean Harbors Environmental to do the cleanup, and asked for an extension to "the end of January." (Ex. A17; Ex. R1 at 335). On December 7, 2016, Lobato informed Respondent that it could not approve an extension without an updated disposal plan and without information about who the new contact person would be for the project. Lobato informed Respondent that DEQ needed the additional information before December 13, 2016, or Respondent would be deemed to have failed to comply with the RAO. (*Id.* at 336). On December 12, 2016, Respondent provided an updated plan but did not provide information about a contact person for the project or provide an actual date of disposal. (*Id.* at 340).

19. Lobato made several additional attempts to gain more information from Respondent. On December 21, 2016, he sent an email asking about the missing parts of the cleanup plan documentation. Respondent indicated that Respondent was now the project manager, and that the work would be done the first and second week of January 2017. On January 3, Lobato asked for an update and received no response. On January 13, 2017, Lobato told Respondent to respond by the close of business that day or DEQ would enforce the RAO. Respondent indicated, by email, that it was awaiting a "time frame" from Clean Harbors. Lobato made further attempts to contact Respondent and received only laconic replies that did not provide specific dates for the cleanup. (Ex. R1 at 345-357).

20. On February 16, 2017, DEQ received an email from Respondent indicating "it's done." (Ex. A17 at 3). On March 24, 2017, Respondent provided a tracking summary for the transport of the hazardous materials. (Ex. A6). The actual manifests of the movement were received by DEQ on March 27, 2017. (Ex. A17 at 3). DEQ did not receive all of the documentation required under the RAO until November 28, 2017, which led to the termination of the RAO. (Ex. A20).

21. Respondent failed to file an annual report for 2016. Respondent was determined by DEQ to be a large quantity generator (LQG) of hazardous materials. (Ex. A21; Test. of

Lobato).

22. On July 12, 2017, DEQ issued a Notice of Civil Penalty Assessment to Respondent, seeking an aggregate of two civil penalties totaling $29,417. On September 8, 2018, DEQ issued an Amended Notice of Civil Penalty Assessment, withdrawing one of the penalties it had assessed, but continuing to seek the other civil penalty in the amount of $16,217. (Amended Notice). Respondent requested a hearing on the notice. (Hearing Request).

CONCLUSIONS OF LAW

1. Respondent stored hazardous waste for more than 90 days without a permit, violating ORS 466.095(1)(a).

2. Respondent violated a DEQ final order by failing to comply with a Remedial Action Order (RAO).

3. Respondent stored hazardous waste in containers that were not handled or stored in a manner that would prevent leaking, violating 40 CFR 262.34(a)(1)(i).

4. Respondent failed to submit a timely annual report, violating OAR 340-102-0041(2).

5. Respondent must pay a civil penalty in the amount of $16,217.

OPINION

DEQ contends that Respondent committed several violations regarding hazardous waste after its purchase of the former plating facility at 702 Grape Street in Medford. DEQ has the burden of proof in this case. ORS 183.450(2) and (5); *Reguero v. Teachers Standards and Practices Commission*, 312 Or 402, 418 (1991) (burden is on Commission in disciplinary action); *Dixon v. Board of Nursing*, 291 Or App 207, 213 (2018) (in administrative actions, the standard of proof that generally applies in agency proceedings, including license-related proceedings, is the preponderance standard.) Proof by a preponderance of the evidence means that the fact finder is convinced that the facts asserted are more likely true than false. *Riley Hill General Contractor v. Tandy Corp.*, 303 Or 390, 402 (1987).

In its proffered affirmative defense, addressed below, Respondent has the proponent's burden to present evidence in support of its position. ORS 183.450(2).

Jurisdictional Argument. Respondent's primary argument in the case goes to the foundation of DEQ's alleged violations. Respondent argues that all of the alleged violations consider Respondent a "generator" of hazardous waste, but Respondent argues it was not a generator and cannot be held responsible for that reason. Respondent relies on *US v. Sims Brothers Construction, Inc.*, 277 F3d 734 (5th Circuit, 2001), but its reliance is misplaced.

In *Sims*, the Albertsons grocery chain purchased real property in Baton Rouge, Louisiana,

where it intended to build a supermarket. Defendant managed the project. The building plan required the demolition of several small buildings on the property. In one of them, workers found two canisters of liquefied methyl bromide, a hazardous material. The workers reported the find to the construction superintendent, who had the canisters removed from the building but not removed from the premises. The superintendent did not contact an environmental company to accomplish the removal.

One month after the canisters were originally found, an employee found the canisters on the premises, removed them from the property without the employer's knowledge, and gave them to his cousin. The cousin died from exposure to the methyl bromide.

Defendants were convicted of illegal storage of hazardous waste in violation of the Resource Conservation and Recovery Act (RCRA) under federal law, and the 5th Circuit affirmed the convictions. Respondents here rely upon a portion of the ruling, where the defendants in that case, like Respondent in this case, argued that they were not generators and were not subject to the limitations under the exemption. The 5th Circuit agreed.

However, the conclusion that the defendants were not a generator actually *worsened* their position in the case. Under state and federal law, as a generator, defendants would have been granted a time period (an exemption) within which to address the disposal of the hazardous material. Because the defendants were *not* generators, the Court ruled, the presence of the hazardous material on the property was a violation without any exemption or extended time period. Unlike a generator, defendants had no time period to address the disposal of the material. As the Court stated:

> While storing hazardous waste without a permit is usually prohibited, there are exceptions to the permit requirement for *generators* who meet certain conditions.

277 F3d at 739 (emphasis added). The Court determined that the defendants were not generators and the exemption did not apply:

> The defendants failed to meet the more strict federal regulations for CESQGs and are not entitled to the exemption under state or federal law. As a result, even if the defendants were considered generators, they could not qualify for the permit exemption.

Id., at 740.

When Respondent in this case raised the *Sims* decision as a potential affirmative defense, DEQ correctly argued that it was to Respondent's benefit to be considered a generator because it granted Respondent a period of time to dispose of the hazardous waste. Without that designation, Respondent was simply in violation of the hazardous material rules by owning property that contained hazardous waste. However, whether a generator or not, in this case Respondent was clearly storing hazardous waste without a permit.

The Violations

1. Storing Hazardous Waste for more than 90 Days. ORS 466.095, the Oregon statute addressing storage of hazardous waste, states:

> **Hazardous waste to be stored or treated at permitted site; exemptions.** (1) Except as provided in ORS 466.075 (2), no person shall:
>
> (a) *Store a hazardous waste anywhere in this state except at a permitted hazardous waste treatment, storage or disposal site*;
>
> (b) *Establish, construct or operate a hazardous waste storage site in this state without obtaining a hazardous waste storage site permit* issued pursuant to ORS 466.005 to 466.385, 466.990 (1) and (2) and 466.992; or
>
> (c) Establish, construct or operate a hazardous waste treatment site in this state without obtaining a hazardous waste treatment site permit issued under ORS 466.005 to 466.385 and 466.992.
>
> (2) The Environmental Quality Commission may exempt certain classes of hazardous waste storage or treatment sites from part or all of the permitting requirements for these sites. Such an exemption can only be made if the commission finds that, because of the quantity, concentration or type of waste or duration of storage, such a class of storage or treatment site is not likely to endanger the public health, welfare or safety or the environment.
>
> (3) If the Director of the Department of Environmental Quality finds an emergency condition to exist, the director may authorize the short-term storage or treatment of a hazardous waste anywhere in the state as long as such temporary storage or treatment shall not constitute a hazard to public health, welfare or safety or to the environment.

(Emphasis added). Under this statute, Respondent's storage of hazardous waste without a permit constituted a violation.

As noted, there is an exemption to the ban against storing hazardous waste for generators, as set forth in 40 CFR §262.34:

> (a) Except as provided in paragraphs (d), (e) and (f) of this section, a generator may accumulate hazardous waste on-site for 90 days or less without a permit or without having interim status[.]

Thus, if GPG is a generator, it was allowed to store the waste for up to 90 days without a permit.

The record is clear that Respondent knew of the hazardous waste on the premises. The real property sale documents specifically indicate there are hazardous materials onsite.

Furthermore, Patricia (as a commercial and residential real estate broker), knew or should have known to evaluate this commercial property for hazardous waste and other environmental hazards.

The question whether Respondent was a generator, however, is of little consequence in this case. The unrebutted evidence in the record establishes that Respondent stored hazardous materials at its site from November 2015 until February 2017. Whether Respondent was a "generator" or not, this period of at least 15 months violated ORS 466.095. That time period exceeded the 90 days allowed in the generator's exemption. DEQ seeks a civil penalty for this violation, the substance of which will be addressed after reviewing the other violations.

*2. **Failing to Comply with RAO.*** On August 30, 2016, DEQ issued a Remedial Action Order (RAO) to Respondent, identifying hazardous waste on the Grape Street property and requiring Respondent to provide its plan to complete the work within 30 days. After the remedial work was completed, the RAO also required Respondent to submit all documentation of the work, including manifests showing the removal and transport of the hazardous waste, within 30 days of completion.

Although Respondent, through Mr. Pieper of SMAF, provided the initial plan to DEQ, it did not adhere to that plan. It requested and received two extensions of time within which to finish the project, the last one requiring the work to be completed by December 9, 2016. After ending the relationship with Pieper and SMAF, Respondent made another request for extension with a new deadline of "sometime in January." Although this extension request was never specifically granted, Respondent did not meet that deadline, either. The work was finished in February 2017.

In addition to the delays in removing the hazardous materials, Respondent was tardy in providing the documentation of the work done on the premises. Respondent violated the RAO, which was a final DEQ order. DEQ seeks no civil penalty for this violation.

*3. **Storage of Hazardous Waste in Improper Containers.*** 40 CFR §262.34, a portion of which was quoted above, requires that hazardous waste, if it is stored in containers, be stored in containers that meet the standards of 40 CFR §265.173, which states:

> **Management of containers.**
>
> (a) A container holding hazardous waste must always be closed during storage, except when it is necessary to add or remove waste.
>
> (b) A container holding hazardous waste must not be opened, handled, or stored in a manner which may rupture the container or cause it to leak.

At least one of the containers in Respondent's facility was leaking Chromic Oxide, a hazardous waste.

Although there is no indication that Respondent actually moved the container or caused

the leak, it is the property owner, it was aware of the hazardous waste on the property, and it is responsible for addressing the leak. Certainly the months of non-action between the purchase of the property and the clean-up of the hazardous materials would have exacerbated the leak of the material. Respondent violated this rule by failing to store hazardous waste properly. DEQ seeks no penalty for this violation.

4. Failure to Submit a Timely Annual Report. OAR 340-102-0041, the rule that requires generators to file annual reports, states:

> **Generator Reporting**
>
> (1) The provisions of this rule replace the requirements of 40 CFR 262.41.
>
> (2) A person producing at any time more than one kilogram of acutely hazardous waste, a total of more than 100 kilograms of hazardous waste in a calendar month, or who accumulates on-site at any time a total of more than 1,000 kilograms of hazardous waste, shall submit Quarterly Reports through the period ending December 31, 1991 to the Department. Effective January 1, 1992, and annually thereafter, a report shall be submitted to the Department, on a form provided by the Department, or by other means agreed to by the Department, by persons defined as small quantity hazardous waste generators, large quantity hazardous waste generators, and/or hazardous waste recyclers. The report shall contain information required by the Department covering activities from the preceding calendar year. Reports shall be submitted by March 1, or within 65 days of mailing by the Department, whichever is later. Upon written request and reasonable justification, the Department may grant an extension to the reporting deadline of up to 30 days. The annual report shall contain:
>
> (a) Information required for purposes of notification of hazardous waste activity and/or annual verification of hazardous waste generator status;
>
> (b) Information required for purposes of describing hazardous waste generator and waste management activity, including information pertaining to hazardous waste storage, treatment, disposal, and recycling efforts and practices;
>
> (c) Information required for the assessment of fees; and
>
> (d) Information required for the Department's preparation and completion of the Biennial Report and Capacity Assurance Plan.

The first time Respondent submitted an annual report—a report different than the one required under the RAO—was March 2017. Its failure to submit an annual report in 2016, a year in which it had owned the Grape Street property with its large amounts of hazardous waste, violated this administrative rule. DEQ seeks no civil penalty for this violation.

Civil Penalty Calculation. DEQ seeks civil penalties for Respondent's violation of

ORS 466.095, when it stored hazardous waste on the property without a permit. DEQ seeks no penalties for the other proven violations. Respondent argues that it was already "penalized" by having to pay more than $41,000 to clean up the property from the hazardous waste. However, Respondent is mixing apples and oranges. The cleanup costs arose from the decision to purchase real property that had large amounts of hazardous waste. The penalty arises from its decision to address that cleanup in ways that violated DEQ statutes and rules.

By rule, DEQ's penalties are determined using the formula BP + [(0.1 x BP) x (P + H + O + M + C)] + EB. OAR 340-012-0045 states the formula and defines some of the factors:

> **Civil Penalty Determination Procedure**
>
> DEQ may assess a civil penalty for any violation, in addition to any other liability, duty, or other penalty provided by law. Except for civil penalties assessed under either OAR 340-012-0155 or OAR 340-012-0160, DEQ determines the amount of the civil penalty using the following formula: BP + [(0.1 x BP) x (P + H + O + M + C)] + EB.
>
> (1) BP is the base penalty and is determined by the following procedure:
>
> (a) The classification of each violation is determined according to OAR 340-012-0053 to 340-012-0097.
>
> (b) The magnitude of the violation is determined according to OAR 340-012-0130 and 340-012-0135.
>
> (c) The appropriate base penalty (BP) for each violation is determined by applying the classification and magnitude of each violation to the matrices in OAR 340-012-0140.
>
> (2) The base penalty is adjusted by the application of aggravating or mitigating factors set forth in OAR 340-012-0145.
>
> (3) The appropriate economic benefit (EB) is determined as set forth in OAR 340-012-0150.

It is this formula that must be used to determine the appropriate civil penalty.

Under the formula, there are several letter designations for aggravating or mitigating factors, as set forth in OAR 340-012-0145, which states in part:

> **Determination of Aggravating or Mitigating Factors**
>
> (1) Each of the aggravating or mitigating factors is determined, as described below, and then applied to the civil penalty formula in OAR 340-012-0045.

(2) "P" is whether the respondent has any prior significant actions (PSAs). A violation becomes a PSA on the date the first formal enforcement action (FEA) in which it is cited is issued.

(a) Except as otherwise provided in this section, the values for "P" and the finding that supports each are as follows:

(A) 0 if no PSAs or there is insufficient information on which to base a finding under this section.

* * * * *

(3) "H" is the respondent's history of correcting PSAs. The values for "H" and the finding that supports each are as follows:

* * * * *

(c) 0 if there is no prior history or if there is insufficient information on which to base a finding under paragraphs (3)(a) or (b).

* * * * *

(4) "O" is whether the violation was repeated or ongoing. A violation can be repeated independently on the same day, thus multiple occurrences may occur within one day. Each repeated occurrence of the same violation and each day of a violation with a duration of more than one day is a separate occurrence when determining the "O" factor. Each separate violation is also a separate occurrence when determining the "O" factor. The values for "O" and the finding that supports each are as follows:

(a) 0 if there was only one occurrence of the violation, or if there is insufficient information on which to base a finding under paragraphs (4)(b) through (4)(d).

(b) 2 if there were more than one but less than seven occurrences of the violation.

(c) 3 if there were from seven to 28 occurrences of the violation.

(d) 4 if there were more than 28 occurrences of the violation.

(e) DEQ may, at its discretion, assess separate penalties for each occurrence of a violation. If DEQ does so, the O factor for each affected violation will be set at 0. If DEQ assesses one penalty for multiple occurrences, the penalty will be based on the highest classification and magnitude applicable to any of the occurrences.

(5) "M" is the mental state of the respondent. For any violation where the findings support more than one mental state, the mental state with the highest value will

apply. The values for "M" and the finding that supports each are as follows:

(a) 0 if there is insufficient information on which to base a finding under paragraphs (5)(b) through (5)(d).

(b) 2 if the respondent had constructive knowledge (reasonably should have known) of the requirement.

(c) 4 if the respondent's conduct was negligent.

(d) 8 if the respondent's conduct was reckless or the respondent acted or failed to act intentionally with actual knowledge of the requirement.

(e) 10 if respondent acted flagrantly.

(6) "C" is the respondent's efforts to correct or mitigate the violation. The values for "C" and the finding that supports each are as follows:

(a) -5 if the respondent made extraordinary efforts to correct the violation or to minimize the effects of the violation, and made extraordinary efforts to ensure the violation would not be repeated.

(b) -4 if the respondent made extraordinary efforts to ensure that the violation would not be repeated.

(c) -3 if the respondent made reasonable efforts to correct the violation, or took reasonable affirmative efforts to minimize the effects of the violation.

Based upon these rules, I review the determinations made by DEQ to determine whether they are supported by a preponderance of the evidence.

The Base Penalty (BP). DEQ contends that the violations in this case constitute a Class I, major magnitude violation by GPG, which is a large quantity generator of hazardous waste. I agree with DEQ that the appropriate base penalty is $12,000.

Prior Significant Actions (P). DEQ assigned a zero value to "P" in the formula because Respondent has not had any prior significant actions. The evidence supports the conclusion that GPG has never had prior significant actions, and the zero value is correct.

History of Correcting Prior Significant Actions (H). Because there have been no prior significant actions, the "H" value was correctly determined to be zero as well.

Ongoing Violation (O). DEQ assigned a value of "4" on this criterion because the storage violation continued for several months, far more than the 28 occurrences addressed in OAR 340-012-0145(4)(d), quoted above. DEQ's analysis is correct.

Mental State of Respondent (M). DEQ determined that "2" was the correct value on Respondent's mental state because it had constructive knowledge of the requirements for dealing with hazardous waste. DEQ's analysis is, in my opinion, generous to Respondent. Respondent had actual knowledge of the hazardous waste on the property and Patricia, the LLC's agent on all matters regarding this property after the sale (even though she had previously been the seller's real estate broker in the actual sale and would not become an actual LLC member until 2017, by her testimony), would be held to a high professional standard of knowledge about addressing hazardous waste matters in real property dealings. DEQ could have made a strong case for a value of "4" on the basis of negligence. However, I will accept the mental state of "2" in this case.

Efforts to Correct (C). DEQ determined that "-3" was the appropriate value because of Respondent's reasonable efforts to correct and minimize the effects of the violation. DEQ's determination is supported by the evidence.

Economic Benefit (EB). DEQ presented evidence to establish an economic benefit in this case, showing the actual economic benefit and demonstrating the method for determining the EB factor under federal law, using the EPA's BEN computer model. DEQ determined the economic benefit here is $617, and Respondent did not present any opposing evidence. DEQ has established that there was an economic benefit of $617.

Determining the Penalty Amount. As noted, the penalty is determined by formula:

Penalty = BP + [(0.1 x BP) x (P + H + O + M + C)] + EB
= $12,000 + [(0.1 x $12,000) x (0 + 0 + 4 + 2 – 3)] + $617
= $12,000 + ($1200 x 3) + $617
= $12,000 + $3600 + $617
= $16, 217

Therefore, for the violation of ORS 466.095, Respondent must pay a civil penalty in the amount of $16,217.

ORDER

DEQ's Amended Notice of September 6, 2018 is AFFIRMED. Respondent shall pay a civil penalty in the amount of $16,217.

Administrative Law Judge
Office of Administrative Hearings

APPEAL RIGHTS

If you are not satisfied with this decision, you have the right to have the decision reviewed by the Oregon Environmental Quality Commission (Commission). To have the decision reviewed, you must file a "Petition for Review" within 30 days of the date this order is served on you. Service, as defined in Oregon Administrative Rule (OAR) 340-011-0525, means the date that the decision is **mailed** to you, and not the date that you receive it.

The Petition for Review must comply with OAR 340-011-0575 and must be **received** by the Commission within 30 days of the date the Proposed and Final Order was mailed to you. You should mail your Petition for Review to:

Environmental Quality Commission
c/o Richard Whitman, Director, DEQ
700 NE Multnomah Street, Suite 600
Portland, OR 97232

You may also fax your Petition for Review to (503) 229-6762 (the Director's Office).

Within 30 days of filing the Petition for Review, you must also file exceptions and a brief as provided in OAR 340-011-0575. The exceptions and brief must be **received** by the Commission within 30 days from the date the Commission received your Petition for Review. If you file a Petition but not a brief with exceptions, the Environmental Quality Commission may dismiss your Petition for Review.

If the Petition, exceptions and brief are filed in a timely manner, the Commission will set the matter for oral argument and notify you of the time and place of the Commission's meeting. The requirements for filing a petition, exceptions and briefs are set out in OAR 340-011-0575.

Unless you timely file a Petition for Review as set forth above, this Proposed Order becomes the Final Order of the Commission 30 days from the date this Proposed Order is mailed to you. If you wish to appeal the Final Order, you have 60 days from the date the Proposed Order becomes the Final Order to file a petition for review with the Oregon Court of Appeals. *See* ORS 183.480 et. seq.

CERTIFICATE OF MAILING

On December 6, 2018 I mailed the foregoing **PROPOSED AND FINAL ORDER** issued on this date in OAH Case No. **2018-ABC-01716.**

By: First Class Mail

Mark Bartholomew
Hornecker Cowling LLP
14 N. Central Avenue, Suite 104
Medford OR 97501

By: Electronic Mail

Susan Elworth, Agency Representative
Environmental Quality Commission
700 NE Multnomah Street, Suite 600
Portland OR 97232

Anesia N Valihov
Hearing Coordinator

Oregon
Kate Brown, Governor

Department of Environmental Quality
Office of Compliance and Enforcement
700 NE Multnomah Street, Suite 600
Portland, OR 97232-4100
(503) 229-5696
FAX (503) 229-5100

October 9, 2018

Administrative Law Judge Jennifer H. Rackstraw
Office of Administrative Hearings
P.O. Box 14020
Salem OR 97309-4020

Mark S. Bartholomew
Hornecker Cowling LLP
14 N. Central Avenue, Suite 104
Medford OR 97501

RE: General Property Group LLC
DEQ Case no. LQ/HW-WR-2016-179
OAH Case no. 2018-ABC-01716

Dear Judge Rackstraw and Mr. Bartholomew:

Attached please find the exhibits that DEQ intends to introduce at the contested case hearing scheduled for October 23, 2018. Also attached is a list of authorities used to interpret the regulations applicable to hazardous waste. Finally, DEQ intends to call one witness at the hearing: Dan Lobato.

Sincerely,

Susan M. Elworth
Office of Compliance and Enforcement

BEFORE THE ENVIRONMENTAL QUALITY COMMISSION

OF THE STATE OF OREGON

IN THE MATTER OF: GENERAL PROPETY GROUP LLC,	)	LIST OF EXHIBITS No. LQ/HW-WR-2016-179 OAH Case No. 2018-ABC-01716

The following exhibits are proposed for entry into the record by DEQ:

A-1. Affidavit of Sarah Wheeler and attached memorandum, 11 pages total

A-2 Property Assessment Information, 2 pages total

A-3 Complaint Intake Form #16-2449, 4 pages total

A-4 Letter from City of Medford dated February 1, 2016, 1 page total

A-5 Letter from General Property Group dated June 14, 2016, 1 page total

A-6 Memorandum from Dan Lobato dated August 11, 2016 and attached exhibits, 36 pages total

A-7 Email dated September 21, 2016 and one attachment (analytical sample results), 25 pages total

A-8 Email dated September 21, 2016 and two attachments (inventory and tank information), 4 pages total

A-9 Email dated May 24, 2017 and one attachment (RCRA Waste Site Identification Form), 6 pages total

A-10 Remedial Action Order dated August 30, 2016 including cover letter and documentation of service, 9 pages total

A-11 Pre-Enforcement Notice dated September 30, 2016, 3 pages total

A-12 Email dated September 30, 2016, 1 page total

A-13 Email dated October 6, 2016 and one attachment (Letter dated October 6, 2016), 5 pages total

A-14 Letter dated November 1, 2016, 1 page total

A-15 Email dated November 8, 2016, 2 pages total

A-16 Email dated March 30, 2017 and one attachment (Manifest Tracking Report and Manifests), 36 pages total

A-17 Memorandum dated April 11, 2017 and 24 attachments, 74 pages total

A-18 Email dated November 28, 2017 and one attachment (Invoices), 8 pages total

A-19 Email dated July 12, 2017 and one attachment (Waste Table), 3 pages total

A-20 Letter dated January 4, 2018, 1 page total

A-21 Email dated October 8, 2018, 9 pages total

A-22 Email dated May 23, 2018, 1 page total

BEFORE THE OREGON ENVIRONMENTAL QUALITY COMMISSION

In the Matter of:)
GENERAL PROPERTY GROUP, LLC) AFFIDAVIT
Case No. LQ/HW-WR-2018-079)
)
STATE OF OREGON)

I, Sarah Wheeler, being duly sworn, depose and say that the following is true to the best of my knowledge:

1. That, I am currently employed by the Department of Environmental Quality as an Environmental Law Specialist.

2. That in the course of my employment, I regularly perform calculations to determine the economic benefit portion of civil penalties assessed by the Department using the United States Environmental Protection Agency's "BEN" computer model, pursuant to OAR 340-012-0150(1),

4. That I used BEN to calculate the economic benefit in Case no. LQ/HW-WR-2016-079.

5. That the attached Memorandum, dated October 1, 2018 and attached "BEN" calculation sheets, were prepared by me in the normal course of my employment.

Date: October 3, 2018

Sarah Wheeler
Sarah Wheeler
Department of Environmental Quality

Sworn and subscribed before me this 3rd day of October 2018

Kathleen Cosby Strohecker
Notary Public for Oregon
My Commission Expires
March 7, 2022

SEAL

OFFICIAL STAMP
KATHLEEN COSBY STROHECKER
NOTARY PUBLIC – OREGON
COMMISSION NO. 972089
MY COMMISSION EXPIRES MARCH 07, 2022

EXHIBIT
tabbies A1 11 pages

BEFORE THE ENVIRONMENTAL QUALITY COMMISSION

OF THE STATE OF OREGON

IN THE MATTER OF: GENERAL PROPETY GROUP LLC,	)	LIST OF EXHIBITS No. LQ/HW-WR-2016-179 OAH Case No. 2018-ABC-01716

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BEFORE THE OREGON ENVIRONMENTAL QUALITY COMMISSION

In the Matter of:)
GENERAL PROPERTY GROUP, LLC) AFFIDAVIT
Case No. LQ/HW-WR-2018-079)
)
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Date: October 3, 2018

Sarah Wheeler
Sarah Wheeler
Department of Environmental Quality

Sworn and subscribed before me this 3rd day of October 2018

Kathleen Cosby Strohecker
Notary Public for Oregon
My Commission Expires
March 7, 2022

SEAL

OFFICIAL STAMP
KATHLEEN COSBY STROHECKER
NOTARY PUBLIC – OREGON
COMMISSION NO. 972089
MY COMMISSION EXPIRES MARCH 07, 2022

EXHIBIT
tabbies
A1 11 pages

State of Oregon
Department of Environmental Quality **Memorandum**

Date: October 1, 2018
To: File
From: Sarah Wheeler, Environmental Law Specialist, Office of Compliance and Enforcement
Subject: BEN calculation for General Property Group

I. General Purpose and Authority

The economic benefit portion of the civil penalty formula is simply the monetary benefit that an entity gained by not complying with the law. It is designed to "level the playing field" by taking away any economic advantage the entity gained and to deter potential violators from deciding it is cheaper to violate and pay the penalty than to pay the costs of compliance.

Oregon Revised Statute 468.130(2)(c,h) directs the Environmental Quality Commission to consider economic conditions of the entity in assessing a penalty as well as other factors that Commission makes relevant by rule. Accordingly, the Commission adopted economic benefit as part of its penalty calculation in Oregon Administrative Rules (OAR) 340-012-0045(1)(e) and -0155. Pursuant to OAR 340-012-0150, the Department generally uses the U.S. Environmental Protection Agency's BEN computer model to determine economic benefit and will use it upon request of a respondent.

II. Theory of Economic Benefit

Compliance with environmental regulations may require an entity to expend financial resources. These expenditures support the public goal of better environmental quality, but often do not yield direct financial return to the entity. Economic benefit is the amount by which an entity is financially better off from not having complied with environmental requirements in a timely manner. If an entity avoids an expenditure, it increases its profit margin or has additional funds available for other profit-making activities. Sometimes the benefit may not be intuitive. For example, if an entity would have had to obtain a loan to make the expenditure, it might seem that the entity did not enjoy the benefit of the extra money – but avoiding the need to repay a loan is a direct financial advantage. If an entity did not make the expenditure on time, but later did make the expenditure, it might seem that the entity did not retain an economic advantage – but temporary access to the monies it should have spent is equivalent to an interest-free loan during the period of noncompliance which is also a direct financial advantage. For this reason BEN generally ignores the potential or likely source of the monies not used.

Economic benefit is "no fault" in nature. An entity need not have deliberately chosen to delay compliance, or even have been aware of its noncompliance, for it to accrue an economic benefit of noncompliance. An economic benefit may accrue before the entity is in actual violation because planning costs, permitting fees, and similar costs often must be paid long before beginning the regulated activity that is in violation.

An appropriate economic benefit calculation represents the amount of money that would make the entity indifferent between compliance and noncompliance. If DEQ does not recover, through a civil penalty, at least this economic benefit, then the entity will retain a gain. Because of the precedent of this retained gain, other regulated companies may see an economic advantage in similar noncompliance. The U.S. Supreme Court has noted that deterrence is a primary purpose of a penalty[1] and that a penalty which fails to include sufficient economic benefit to remove the advantage of noncompliance will fail to deter future violations.[2]

III. Basis of the Costs Considered

Determining economic benefit always requires evaluating circumstances to determine what necessary or reasonable costs would have been required to obtain compliance or to determine what benefits were received from noncompliance. Often, an entity has more than one option to reach compliance and the Department evaluates the circumstances to determine what probable or reasonable steps the entity should have taken. The Department then estimates the reasonable costs and benefits pursuant to OAR 340-012-0150(2).

On or before February 3, 2016, General Property Group should have spent $19,318 for the proper disposal of hazardous waste. By delaying this cost of compliance until March 10, 2017, General Property Group benefited by an estimated $286.

On or before February 3, 2016, General Property Group should have spent $6,666 to conduct hazardous waste determinations. By delaying this cost of compliance until August 25, 2016, General Property Group benefited by an estimated $80.

IV. Applicability of Standard Rates Presumed by Rule

The BEN model relies on income-tax rates, inflation rates, and discount rates. The model allows the operator to input particular rates, but in the absence of operator input, the BEN model uses standard values based on the years of the violation, the state where the violation occurred and the entity's legal and profit status (*e.g.*, C-corporation, other for profit, non-profit, municipality, or federal facility). It calculates inflation rates from the Plant Cost Index (PCI) published by the magazine *Chemical Engineering* and from the Consumer Price Index. Alternative optional inflation indices include:

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[1] *See Tull v. United States*, 481 U.S. 412 (1987) (finding that the legislature intended penalties for environmental violations under the Clean Water Act to create deterrence). *Note also* OAR 340-012-0026(1)(c) which states that a goal of enforcement under the Oregon Environmental Quality Commission rules is deterrence.
[2] *See Friends of the Earth v. Laidlaw Environmental Services, Inc.*, 528 U.S. 167, fn. 2 (2000) (discussing the insufficiency of the economic benefit portion of a penalty for hazardous waste violations).

Abbreviation and Full Name		Description	Typical Applications
2.5%	Constant rate of 2.5%	Assumes annual inflation rate is constant at 2.5 percent.	
CCI	Construction Cost Index	Construction costs (based on 1.128 tons Portland cement, 1,088 bd. ft. 2x4 lumber) and 200 common labor.	General construction costs, especially where labor costs are a high proportion of total costs.
ECI	Employment Cost Index	Total civilian compensation for all workers, seasonally adjusted.	One-time nondepreciable expenditures or annual costs that comprise mainly labor.
GDP	Gross Domestic Product Implicit Price Deflator	Measured by U.S. Commerce Department through the Bureau of Economic Analysis. Equals GDP in current dollars divided by GDP in constant dollars.	general expenses that affect multiple sectors of the economy (e.g., labor and construction).
PCI	Plant Cost Index	Plant cost index published by *Chemical Engineering*.	Standard default and for plant equipment costs.
PPI	Producer Price Index for Finished Goods	Reflects the price level for processing finished goods.	Processing finished goods, general expenses that affect multiple sectors of the economy (*e.g.*, labor and construction).

Pursuant to OAR 340-012-0150(1), the "model's standard values for income tax rates, inflation rate and discount rate shall be presumed to apply to all Respondents unless a specific Respondent can demonstrate that the standard value does not reflect the Respondent's actual circumstance."

V. Description of the Attached Run

BEN calculates the economic benefits gained from delaying and avoiding required environmental expenditures. Such expenditures can include: (1) capital investments (*e.g.*, larger pollution control or monitoring equipment, costs of design and installation), (2) one-time non-depreciable expenditures (*e.g.*, permit fees, clean-up costs, setting up a reporting system, acquiring land needed for a capital improvement), (3) annually recurring costs (*e.g.*, routine operating and maintenance costs, utilities). Each of these expenditures can be either delayed or avoided. BEN's baseline assumption is that capital investments and one-time non-depreciable expenditures are merely delayed over the period of noncompliance, whereas annual costs are avoided entirely over this period.

The calculation incorporates the economic concept of the "time value of money." Stated simply, a dollar today is worth more than a dollar tomorrow, because you can invest today's dollar to start earning a return immediately. Thus, the further in the future the dollar is, the less it is worth in "present-value" terms. Similarly, the greater the time value of money (*i.e.*, the greater the "discount" or "compound" rate used to derive the present value), the lower the present value of future costs. To calculate an entity's economic benefit, BEN uses standard financial cash flow and net-present-value analysis techniques based on modern and generally accepted financial principles, which were subjected to extensive national notice-and-comment processes.[3]

Inputs to the model include costs specific to the situation of the entity which include the values described in Section III as well as the presumed standard indexes and rates described in Section IV. The values used are listed in the lower three-quarters of the attached BEN Run Table. Using these values, BEN makes a series of calculations the results of which are listed in the top of the attached BEN Run Table by the letter indicated below.

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[3] *See* Calculation of the Economic Benefit of Noncompliance in EPA's Civil Penalty Enforcement Cases, Request for comment, 61 Fed. Reg. 53025-53030 (Oct. 9, 1996); Calculation of the Economic Benefit of Noncompliance in EPA's Civil Penalty Enforcement Cases, Extension of time for request for comment, 61 Fed. Reg. 65391 (Dec. 12, 1996); Calculation of the Economic Benefit of Noncompliance in EPA's Civil Penalty Enforcement Cases, Advance notice of proposed action, response to comment, and request for additional comment, 64 Fed. Reg. 32947-32972 (June 18, 1999); Calculation of the Economic Benefit of Noncompliance in EPA's Civil Penalty Enforcement Cases, Advance notice of proposed action, response to comment, and request for additional comment, 64 Fed. Reg. 39135-39136 (July 21, 1999); Calculation of the Economic Benefit of Noncompliance in EPA's Civil Penalty Enforcement Cases, Notice of final action and response to comment, 70 Fed. Reg. 50326-50345 (August 26, 2005) available at http://www.epa.gov/EPA-GENERAL/2005/August/Day-26/g17033.htm.

A) **On-Time Capital & One-Time Costs**. This is what compliance would have cost had the entity made its purchases of capital on time or paid its one-time costs on time. BEN calculates this value from the estimated costs as of the date the costs are estimated by discounting the annual cash flows at an average of the cost of capital throughout this time period. The value of the costs is adjusted to account for tax deductibility and depreciation. "A" is the value of noncompliance as of the date of initial noncompliance. (*See* **Fig. 1**) If "A" is zero, there are no capital or one-time costs in the calculation.

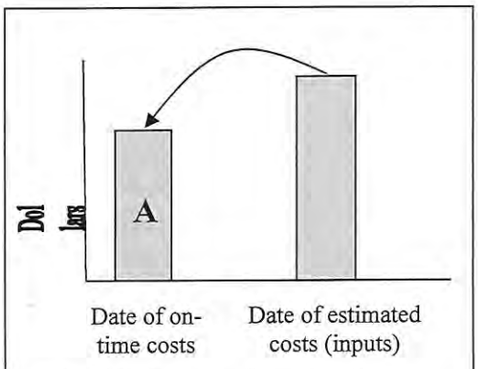


Fig 1. Calculating on-time capital and one-time costs from estimated costs

B) **Delay Capital & One Time Costs**. If the entity eventually did pay or will pay the costs of compliance in the future, BEN calculates what the entity would have needed to set aside on the date of noncompliance so as to have sufficient funds as of the date of delayed compliance. This number is used to mitigate the economic benefit by considering the known amount the entity will pay. BEN derives this number by: (1) determining the predicted delayed costs by adjusting for inflation and to account for tax deductibility in the year in which the funds were or will be spent and also for future depreciation tax shields, and (2) discounting the annual cash flows at an average of the cost of capital throughout this time period to account for interest. (*See* **Fig. 2**) "B" will be zero if all costs were avoided.

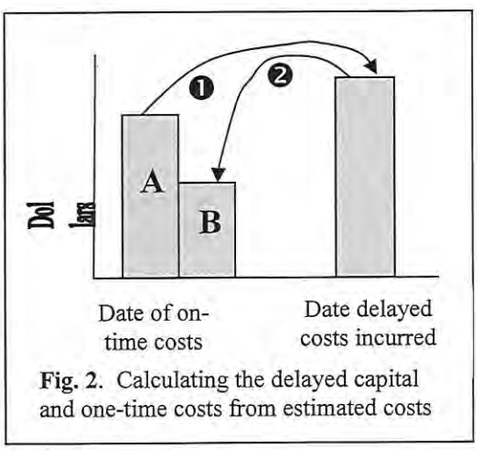


Fig. 2. Calculating the delayed capital and one-time costs from estimated costs

C) **Avoided Annually Recurring Costs**. This is the value of the avoided annual recurring costs as of the date of initial noncompliance. BEN derives this value by discounting the annual cash flows at an average of the cost of capital throughout this time period and accounting for tax deductibility. (*See* **Fig. 3**) "C" will be zero if there are no recurring annual costs.

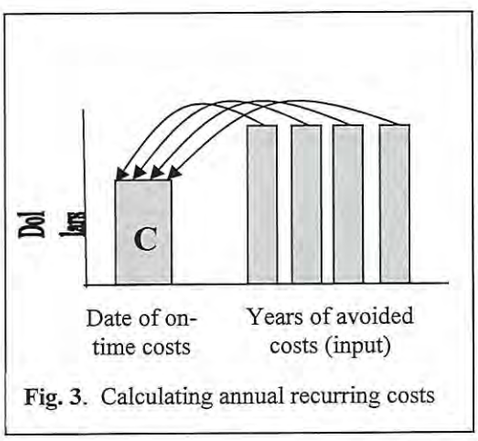


Fig. 3. Calculating annual recurring costs

D) <u>Initial Economic Benefit (A – B+C)</u>. The values for A, B, and C are all values as of the date of noncompliance. The economic benefit received as of the date of noncompliance is determined by taking the on-time capital and one-time costs that should have been paid (A), subtracting the delayed capital and one-time costs which had been or will be paid (B), and adding the avoided annually recurring costs (C). The result is the economic benefit received as of the date of noncompliance. (*See* **Fig. 4**) The economic benefit is often much lower than the originally-estimated costs. This is because inflation tends to make more recent costs higher than historical costs and because the entity could have taken a tax deduction for the year in which the expenditure was made.

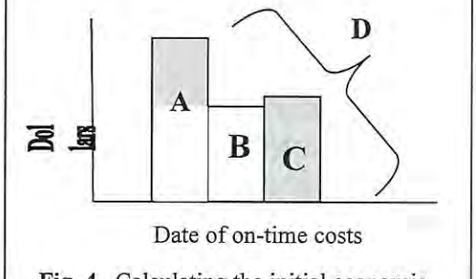


Fig. 4. Calculating the initial economic benefit. The total initial economic benefit is shown in grey.

E) <u>Final Economic Benefit at Penalty Payment Date</u>. BEN compounds the initial economic benefit forward to the penalty payment date at the same cost of capital to determine the final economic benefit of noncompliance. (*See* **Fig. 5**) Occasionally an entity looses money because the economic benefit is a negative number. In that case the economic benefit used in the penalty calculation is zero.

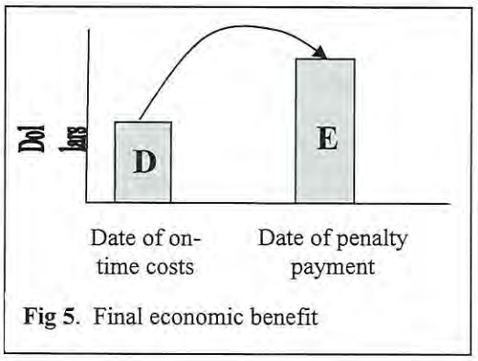


Fig 5. Final economic benefit

IV. Final Economic Benefit Is Likely an Underestimate

The economic benefit calculated above may underestimate the total economic benefit that the respondent received to date because it is based on conservative assumptions and does not include unknown or incidental costs. It also does not address uncertain indirect financial benefits, including:

- *Advantage-of-risk* – the value of (1) the risk of never getting caught and (2) keeping future options open by delaying a decision to institute a process or purchase capital;
- *Competitive advantage* – (1) beginning production earlier than would be possible if in compliance; (2) attracting clients by avoiding compliance costs, having a higher profit margin and therefore being able to offer goods or services at a lower cost than competitors; (3) keeping those clients attracted by lower prices because of brand loyalty or high switching costs; or (4) using the time or money saved to increase production; and
- *Illegal profits* – selling illegal products or services.

EPA has undertaken a review of these indirect factors and may craft an economic method for calculating them.[4] Until that evaluation is complete, I consider these other economic benefits to be "de minimis" in light of the difficulties in calculation. Pursuant to OAR 340-012-0150(3), the Department need not calculate an economic benefit if that benefit is de minimis.

Another reason that the estimate above may be an underestimate is that the calculation is based on the time value of money, and is sensitive to when delayed costs are actually incurred and when penalties are actually paid. When the Department calculates an economic benefit for incorporation in a Notice of Civil Penalty Assessment, it often assumes the entity will comply with the schedule in the Order and that the penalty will be paid without the delays required for an appeal. This results in a lower economic benefit than would be obtained if the actual dates were initially known and used. For this reason the Department may recalculate the economic benefit for the hearing or in settlement so as to reach a more accurate final economic benefit.

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[4] *See* EPA Office of Enforcement and Compliance Assurance, "*Identifying and Calculating Economic Benefit That Goes Beyond Avoided and/or Delayed Costs*," (May 25, 2003) available at http://www.epa.gov/compliance/resources/publications/civil/programs/econben-costs.pdf; EPA Illegal Competitive Advantage Economic Benefit Advisory Panel of the Science Advisory Board, Advisory no. EPA-SAB-ADV-05-003, (Sept. 7, 2005) available at http://www.epa.gov/sab/pdf/ica_eb_sab-adv-05-003.pdf; EPA Office of Enforcement and Compliance Assurance, Response to advisory, (July 19, 2006) available at http://www.epa.gov/sab/pdf/sab-adv-05-003_response_07-19-06.pdf.

Run Name = disposal2

Present Values as of Noncompliance Date (NCD).	03-Feb-2016
A) On-Time Capital & One-Time Costs	$9,854
B) Delay Capital & One-Time Costs	$9,618
C) Avoided Annually Recurring Costs	$0
D) Initial Economic Benefit (A-B+C)	$236
E) Final Econ. Ben. at Penalty Payment Date, *01-Dec-2018*	**$286**

For-Profit (not C-Corp.) w/ OR tax rates	
Discount/Compound Rate	7.1%
Discount/Compound Rate Calculated By:	BEN
Compliance Date	10-Mar-2017
Capital Investment:	
Cost Estimate	$0
Cost Estimate Date	N/A
Cost Index for Inflation	N/A
Consider Future Replacement (Useful Life)	N/A (N/A)
One-Time, Nondepreciable Expenditure:	
Cost Estimate	$19,318
Cost Estimate Date	07-Jul-2017
Cost Index for Inflation	PCI
Tax Deductible?	y
Annually Recurring Costs:	
Cost Estimate	$0
Cost Estimate Date	N/A
Cost Index for Inflation	N/A
User-Customized Specific Cost Estimates:	N/A
On-Time Capital Investment	
Delay Capital Investment	
On-Time Nondepreciable Expenditure	
Delay Nondepreciable Expenditure	

Run Name = HWD2

Present Values as of Noncompliance Date (NCD).	03-Feb-2016
A) On-Time Capital & One-Time Costs	$3,400
B) Delay Capital & One-Time Costs	$3,334
C) Avoided Annually Recurring Costs	$0
D) Initial Economic Benefit (A-B+C)	$66
E) Final Econ. Ben. at Penalty Payment Date, *01-Dec-2018*	**$80**

For-Profit (not C-Corp.) w/ OR tax rates	
Discount/Compound Rate	7.1%
Discount/Compound Rate Calculated By:	BEN
Compliance Date	25-Aug-2016
Capital Investment:	
Cost Estimate	$0
Cost Estimate Date	N/A
Cost Index for Inflation	N/A
Consider Future Replacement (Useful Life)	N/A (N/A)
One-Time, Nondepreciable Expenditure:	
Cost Estimate	$6,666
Cost Estimate Date	07-Jul-2017
Cost Index for Inflation	PCI
Tax Deductible?	y
Annually Recurring Costs:	
Cost Estimate	$0
Cost Estimate Date	N/A
Cost Index for Inflation	N/A
User-Customized Specific Cost Estimates:	N/A
On-Time Capital Investment	
Delay Capital Investment	
On-Time Nondepreciable Expenditure	
Delay Nondepreciable Expenditure	

Account Sequence | Map TL Sequence | Assessment Year 2018 | Print Window | Close Window

Assessment Info for Account 1-037518-1 Map 371W30CD Taxlot 5200

Report For Assessment Purposes Only Created October 01, 2018

Account Info

Account	1-037518-1
Map Taxlot	371W30CD 5200
Owner	GENERAL PROPERTY GROUP LLC
Situs Address	
702 GRAPE ST S MEDFORD R	
Mailing Address	GENERAL PROPERTY GROUP LLC PO BOX 8158 MEDFORD OR, 975010458
Associated Taxlots 1 Acct	
49-01 R 1-037519-0 371W30CD 5201 ACTIVE	
Appraiser	63

Tax Year 2017 Info

Pay Taxes Online

Tax Report	Details
Tax Statement	Details
Cor Tax Statement	Details
Tax History	Details

Tax Code 49-01

Tax Type	Due Date	Amount
Advalorem	11/15/17	$1,353.10
Tax Rate		15.4746
District Rates		Details
Tax Details		Details
Tax Rates		Details

Land Info

Tax Code	49-01
Acreage	0.11
Zoning	
Land Class	
UNK 0.11 Ac	
Property Class	301
Stat Class	611
Unit ID	158730-2
Maintenance Area	5
Neighborhood	000
Study Area	77
Account Status	ACTIVE
Tax Status	Assessable
Sub Type	NORMAL

Sales Data (ORCATS)

Last Sale (consideration > 0)	Sale Date	Instrument Number	Sales History
$ 145,000	Nov 03, 2015	2015-36749	Details

Value Summary Detail (For Assessment Year 2018 - Subject To Change)

Market Value Summary (For Assessment Year 2018 - Subject To Change)

Code Area	Type	Acreage	RMV	M5	MAV	AV
49-01	LAND	0.11	$ 50,150	$ 50,150	$ 32,120	$ 32,120
49-01	IMPR	0.00	$ 80,470	$ 80,470	$ 57,940	$ 57,940
Value History Details		Total:	$ 130,620	$ 130,620	$ 90,060	$ 90,060

Value Summary Details

Value History

Improvements

Building #	Code Area	Year Built	Eff Year Built	Stat Class	Description	Type	SqFt	% Complete	
1	49-01	0		611	Warehouse - Storage	Comml Imp	4554	100 %	Details

Photos and Scanned Documents

SCANNED ASSESSOR DOCUMENTS	(See new portal)	(See new portal)	Portal
ALL IN ONE REPORT?			

Improvement Comments

Account Comments

EXHIBIT
tabbies
A2 2 pages

http://web.jacksoncounty.org/pdo/Ora_asmt_details.cfm?account=10375181

04/11/00: Original Appraisal converted to CAAP. Original values used. NCIV CAAP updated. Common account>>9/5/08: Reappraised as part of county wide revaluation of warehouse properties done for base year 2008-09. Established MA 8 (county wide), SA 70 (Commercial), NH 610 (Warehouses) for this purpose. >>

Exemptions / Special Assessments / Notations / Potential Liability

Location Map



Close Window | Print Window

Agency Complaints System

Agency Complaints System > Complaint Intake > 16-2449

Complaint Intake : 16-2449

Alert Me

Complaint Intake Information

Complaint Intake By	McMorrine Edith
Complaint Received On	7/7/2016
Complaint Received Via	Email
Assigned To	LOBATO Dan
Assigned To Manager	FULLER Brian
Sub-Program	LQ – Hazardous Waste
Pesticide Analytical Response Center (PARC) and DEQ PARC Representative Notified?	No
Out of DEQ Referral	

Complainant Information

Is Complaint Anonymous?	No
Keep Contact Info Confidential?	No
Would you like a complaint responder to contact you?	Yes
Complainant Name	Mark Warwick
Complainant Organization	City of Medford
Complainant Street Address	
Complainant City	
Complainant State	Oregon
Complainant Zip	
Complainant Primary Phone Type	
Complainant Primary Phone Number	
Complainant Alternative Phone Type	
Complainant Alternative Phone Number	
Complainant Email	Mark.Warwick@cityofmedford.org
Complainant Reporting for Someone Else?	
Is the Problem Experienced at Your Address?	

Incident Information

EXHIBIT 43 4 pages tabbies

Date of Incident	
Time of Incident	
Alternative Date - Month	
Alternative Date - Year	
Is Incident Still Occurring?	Yes
If "No", When Did it Stop?	
Has This Been Reported Before?	No
If "Yes", Has the Situation Changed?	Same
Incident Media	Soil, Water
Incident Material	Chemical, Two 1000 gallon tanks one chrome other nickle
Quantity	
Incident Cause	Industrial Activity
Incident Description	"We have a situation here regarding a former 40 CFR 413 metal finisher (Medford Plating) in which the facility ceased operations in 2014. This is a plating shop that has been in operation since the 1960's. The then owner sold the building in November 2015 "as is" to an LLC who is now the legal owner. The building was sold with Chrome and Nickel plating bath tanks that contained up to 1000 gallons each of plating chemical. We terminated the existing IWDP as of the date of sale and have been trying to gain access to the building since November in order to do a site inspection and confirm the condition of the facility. The building owner has been non cooperative and has refused access stating that he's not a "user" of the sewer since he's not discharging and has not applied for nor been issued an IWDP. " an additional address for General Property Group, LLC: PO Box 8158 Medford OR 97501

Additional Odor Information

Odor Character	
Odor Frequency	

Odor Duration	
Odor Strength	
Odor Offensiveness	
Other Odor Information	

Incident Description

Incident Street Address	Medford Plating Inc
Incident City	702 S Grape St Medford OR 97501
Incident Zip Code	
Incident Neighborhood	
Incident Location is Inside City Limits?	N/A
Incident County	JACKSON
Incident Property/Land Owner	General Property Group LLC, Kevin Curtin, President
Incident Waterway	
Incident Driving Directions	

Potential Responsible Party

Potential Responsible Party Name	Kevin Curtin, President (541-772-1113)
Potential Responsible Party Business	General Property Group LLC
Potential Responsible Party Address	15800 SW Boones Ferry Rd Ste A3
Potential Responsible Party City	Lake Oswego
Potential Responsible Party State	Oregon
Potential Responsible Party Zip Code	97035
Potential Responsible Party Telephone	opropc@hotmail.com

Have You Notified Others?

Did You Notify Anyone Else?	
Contact #1 - Agency/Organization	
Contact #1 - Person Contacted	
Contact #1 - Phone Number	
Contact #1 - Email	
Contact #2 - Agency/Organization	
Contact #2 - Person Contacted	
Contact #2 - Phone Number	
Contact #2 - Email	
Contact #3 - Agency/Organization	
Contact #3 - Person Contacted	
Contact #3 - Phone Number	
Contact #3 - Email	

Complaint Response

Program Priority	High
Does This Facility Have a DEQ Permit?	No
DEQ Permit Type and Number	
Is "Nuisance Odor Evaluation Worksheet" Completed?	
Follow Up Action	Tried unsuccessfully to get access to the site beginning in July. Finally granted access in August. WEnt to the site and found the allegations to be true. Several vats/tanks containing plating chemicals were found. Remedial Action Order #LQ/HW-WR 2016-134 was issued to compel the owner to characterize, cleanup and dispose of all chemicals and hazardous wastes on-site at 702 S. Grape St., Medford, Oregon. A PEN was issued as well.
Complaint File Location	
Complaint Inspection Report	
Inspection Needed?	Yes
Report/Info Requested?	Yes
Complainant Contacted Date	8/16/2016
WL/PEN Number	2016-PEN-1856
Staff Time to Resolve (00.0 hrs.)	60.00
Resolution/Closed Date	9/9/2016
Attachments	

Alert Me

Created at 7/7/2016 1:58 PM by MCMORRINE Edith
Last modified at 9/9/2016 11:47 AM by LOBATO Dan

PUBLIC WORKS DEPARTMENT
WATER RECLAMATION DIVISION
1100 Kirtland Road
Central Point, OR 97502

CITY OF MEDFORD
REGIONAL WATER RECLAMATION FACILITY

TEL: (541) 774-2750
FAX: (541) 774-2797

February 1, 2016

Certified Mail

Steve McGhehey
South Valley Plating, Inc.
P.O. Box 702
Sisters, OR 97759

re: South Valley Plating Industrial Waste Discharge Permit (IWDP) #15-M1-3471-1304 Modification

Dear Mr. McGhehey:

Regarding the sale on November 4th, 2015 of the South Valley Plating building located at 702 S. Grape St. Medford, OR 97501 the Regional Water Reclamation Facility (RWRF) was under the understanding that the new ownership may continue to operate the facility as a plating shop as defined under South Valley Plating's existing IWDP #15-M1-3471-1304. In these cases the existing permit can be transferred to the new ownership if there is no change to process or operations. The RWRF was withholding action on the existing permit pending information from the new ownership. Recent information indicates they will not be requesting a permit transfer for continued use of the facility as permitted. Given that, the RWRF is terminating South Valley Plating's existing IWDP by modifying the permit expiration date retroactive to the date of sale.

Permit modification:

South Valley Plating's IWDP #15-M1-3471-1304 is hereby modified;
Expiration Date of Permit: November 4, 2015.

If you have any questions regarding this modification, please call the RWRF at 541-774-2756.

Sincerely,

Dennis Baker
WRD Superintendent

c: Mark Warwick, WRD Source Control Supervisor
Brice Perkins, City of Medford Deputy Public Works Director

EXHIBIT
Tabbies
A4 1 page

GENERAL PROPERTY GROUP LLC

15800 SW Boones Ferry Rd Ste A3
Lake Oswego, OR 97035

June 14, 2016

RECEIVED
JUN 16 2016
CITY ATTORNEY'S OFFICE

City Attorney's Office
Lori J. Cooper
411 West 8th Street
Medford, OR 97501

Dear Ms. Cooper,

I am in receipt of your letter dated June 8, 2016, that was sent to our realtor, Patricia Curtin. Ms. Curtin was the buyer's agent for the purchase of the property located at 702 S Grape St, which took place several months ago. She has no ownership interest or managerial position with General Property Group LLC.

Please direct all future correspondence to General Property Group LLC at 15800 SW Boones Ferry Rd Ste A3, Lake Oswego, OR 97035 or by email at opropc@hotmail.com.

The property located at 702 S Grape St has no active water, sewer, electric, or gas services. There is no active business located at the premises. The building is locked and secure. There is no industrial waste water or waste water of any kind being discharged into the sewer system. The sewer system is not being used in any manner.

General Property Group LLC is requesting, pursuant to Oregon open records law, all records, documents, files, reports held by Mark Warwick, the City of Medford regional water reclamation facility, and the city's attorney's office for the property located 702 S Grape St.

If you have any questions, please contact us at the above address.

Thank you,

Kevin Curtin, President
General Property Group LLC



State of Oregon
Department of Environmental Quality Memorandum

Date: August 11, 2016

To: **Complaint File #16-2449**

From: Dan Lobato
Hazardous Waste Compliance - Eugene

Subject: **Medford Plating Investigation**

The Department received the above referenced complaint on July 7, 2016. I was assigned the complaint shortly thereafter. I contacted the complainant to get more information. The complainant, City of Medford, had been trying to access a recently closed plating shop to ensure the chemicals had been removed from the building because the City of Medford was concerned that the chemicals might be released to the City's combined stormwater/sewage system. The Medford Plating (facility) had closed in 2014 and was sold "as is" in November 2015. The new owner was aware of the chemicals left on-site according to the property transaction documents. The new owner of record is General Property Group, LLC (GPG), Kevin Curtin, president, 15800 SW Boones Ferry Road Ste A3, Lake Oswego, OR 97035. (Warranty Deed 2015-036749 attached)

My first attempt at getting access to the facility occurred on July 12, 2016. I tried unsuccessfully to contact Mr. Curtin by phone. I then sent an email to what was identified as GPG's email address. In my email, I requested access to the facility and provided the statutory authority for doing such. I received an email message from GPG stating they would research the statutory authority and get back to me. GPG did not get back to me and I sent additional emails trying to get access, with my last being sent on July 28th, 2016 informing GPG that I would be obtaining an access warrant and that I would be on-site on August 10th, 2016. I got an email from GPG on August 8th, 2016 informing me that GPG had hired an environmental consultant that would be at the facility on August 9th, 2016 and would let me in and address my concerns.

Craig Filip, ODEQ, arrived at Medford Plating on August 9th, 2016 at 11:00 am. Mr. Filip accompanied me to photo-document the site while I took notes. We arrived at the site and were met by Mr. Scott Pieper of SMAF Environmental. Mr. Pieper indicated he was hired by a real estate agent named "Patricia" who was acting for the owner Mr. Curtin. Mr. Pieper asked if I had been inside the building and I said I had not. Mr. Pieper told me that he had been on site 3 weeks ago to do a site walk prior to the sampling event, after I had emailed Mr. Curtin initially.

The facility consists of an approximately 1500 square foot cinder block building with an office area, plating room, polishing room and chemical storage room. (photo 1-8) The outside area has a concrete surface with drains and a chain link fence around the area.



SMAF did an inventory of all chemicals, waste and products, found throughout the facility. (see attached inventory)

The plating room is a large room with eleven process vats/tanks. In addition, there were five 250 gallon totes and two small containers of spent filters. (photo # 15-32)

The next area we went into was the chemical storage room. There were numerous containers of hazardous chemicals inside of this room. In addition, there was a container labeled "unichrome" (chromic oxide) that was leaking. (see photo #34-58) Several spent fluorescent lamps were on the floor of this room.

We then looked at the outside area which included an alcove (covered) area on the west side of the building. There were three tanks/vats in this location. There were also 20+ spent mercury containing fluorescent lamps on the ground in the alcove area. (see photo #12)

We then went into the polishing room. (photo #59-61) A dust collection system was used in the polishing room. This system discharged to a 55-gallon drum on the outside of the building. This container had an accumulation of dust (waste). (photo #8)

In addition, outside of the building, in the back, were two large tanks that were empty, but had a couple inches of rainwater in them. Two smaller tanks were MT, stored on their side. (photo #4,5,6 and 14)

Also outside of the building there were several drains in the concrete. There were two large sumps that contained liquid/sludge. The drains and sumps appear to be stormwater related. (photo #9,10 and 11)

Due to the quantity of hazardous chemicals at this location, mainly corrosives and heavy metals, the length of time they have not been actively managed or monitored, (since November 2015), an already leaking chromium oxide container and the fact that the building is unmanned, the threat of a release to the environment is imminent, I am recommending we issue a Remedial Action Order to ensure the timely management and removal of hazardous waste and chemicals from this facility.

Medford Plating

Plating Room Inventory: (see attached plating room map)

Container	Contents	Solid/Liquid	Amount	Photo#
250-gallon tote	Nickel Plating Solution	Liquid	250 gallons	19, 20
250-gallon tote	Copper Plating Solution	Liquid	250 gallons	19, 20
250 gallon tote	Chrome Plating Solution	Liquid	250 gallons	19, 20
250-gallon tote	Nickel Plating Solution	Liquid	250 gallons	19, 20
250 gallon tote	Nickel Plating Solution	Liquid	25 gallons?	19, 20
Process vat/tank#1		MT	MT	31
Process vat/tank#2	Unknown Plating Solution	Liquid/Sludge	full	26
Process vat/tank#3	Unknown Plating Solution	Sludge	unknown	25, 28
Process vat/tank#4	Unknown Plating Solution	Liquid/Sludge	½ full	16
Process vat/tank#9	Unknown Plating Solution		sludge in bottom	15
Process vat/tank#10	Unknown Plating Solution		sludge in bottom	17, 27
Process vat/tank#11	Unknown Plating Solution		½ full	27
Gallon tank #5	Corrosive	Liquid	½ full	21, 22
Gallon tank #6	Corrosive	Liquid	½ full	21, 30
Gallon tank #8	Corrosive	Liquid	½ full	21
Gallon tank #9	Corrosive	Liquid	½ full	21, 32
15-gallon	floor sweepings	Solid	Full	18
15-gallon	spent filters	Solid	Full	23
5-gallon	spent filters	Solid	Full	24, 25

Chemical Storage Room Inventory:

Container Volume	Contents	Solid/Liquid	Amount	Photo #
55-gallon	Muriatic Acid	Liquid	50 gallons(full)	37
55-gallon	Hydrochloric Acid	Liquid	50 gallons(full)	36
55-gallon	Nickel Sulfate	Liquid	50 gallons(full)	35

55-gallon	Nickel Sulfate	Liquid	2 gallons	34
55-gallon	Sodium Hydroxide	Solid	50 gallons(full)	38
1-gallon	Sulfuric Acid	Liquid	1 gallon	49
1-gallon	Sulfuric Acid	Liquid	1 gallon	49
1-gallon	Sulfuric Acid	Liquid	1 gallon	49
5-gallon	Cadmium Oxide	Liquid	5 gallons	-
5-gallon	Nickel Carbamate	Liquid	5 gallons	51
5-gallon (leaking)	Unichrome (Chromic Oxide)	Semi-Liquid	5 gallons	46,55,57
20 pound bag	Boric Acid	Solid	20 pounds	48
5-gallon	Nickel Chloride	Liquid	5 gallons	-
5-gallon	Nickel Additive	Liquid	5 gallons	45
5-gallon	Nickel Additive	Liquid	5 gallons	45
5-gallon	Nickel Adjuster	Liquid	5 gallons	42
5-gallon	Chromium Trioxide	Liquid	5 gallons	47
5-gallon	Sodium Saccharin	Liquid	5 gallons	43
5-gallon	Nickel Adjuster	Liquid	5 gallons	42
15-gallon	Nickel Carbamate	Solid	15 gallons	51

There was also several spent mercury containing fluorescent lamps on the floor of this room.

Alcove (outside) Inventory:

Tank Volume	Contents	Solid/Liquid	Amount	
300-gallon	Sludge	Sludge		12
300-gallon	MT		MT	12
300 gallon		Liquid	150 gallons	12

There was also several spent mercury containing fluorescent lamps on the floor of the alcove.

Inspection Photographs of Medford Plating taken on August 9, 2016 by Craig Filip

Picture 1: Medford Plating Building facing northwest



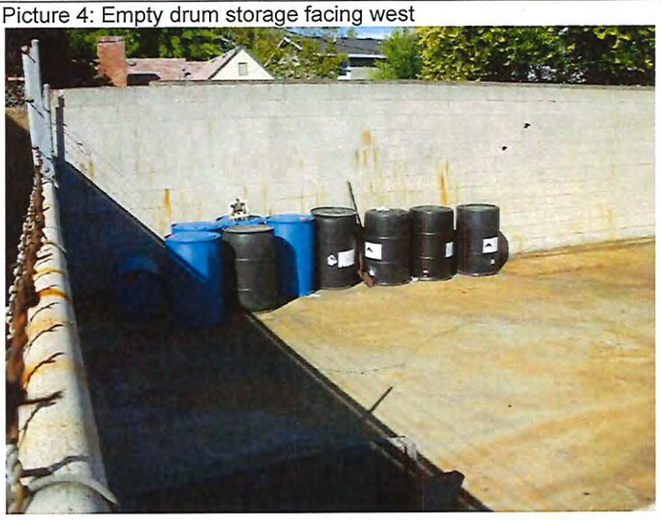
Picture 2: Outside building facing southwest



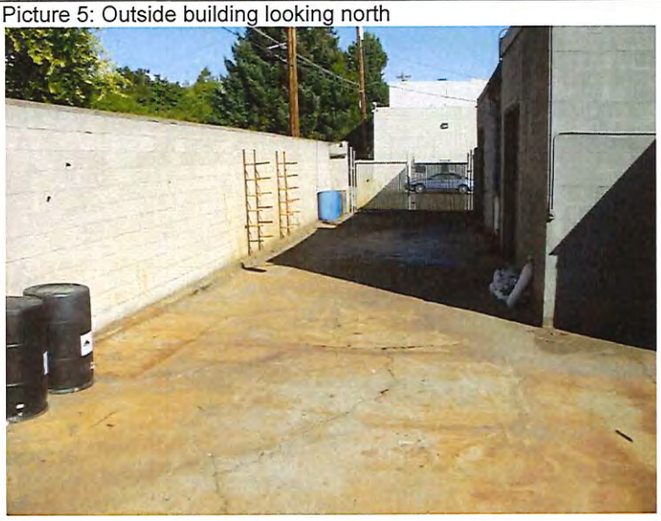
Picture 3: Building entrance



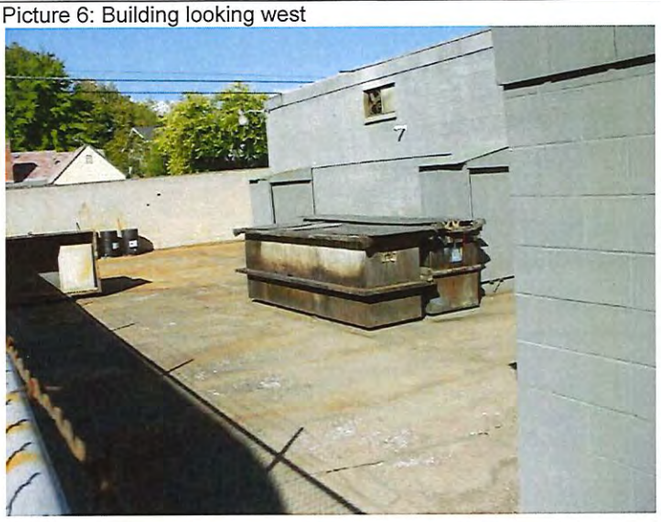
Picture 4: Empty drum storage facing west



Picture 5: Outside building looking north

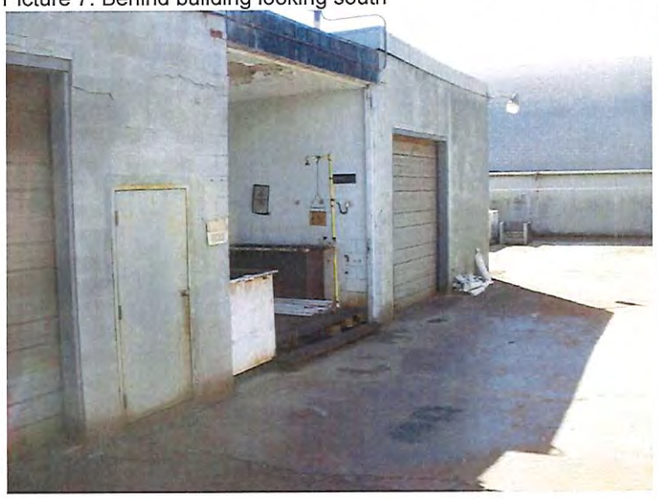


Picture 6: Building looking west



2017 Inspection Photographs of Medford Plating taken on August 9, 2016 by Craig Filip

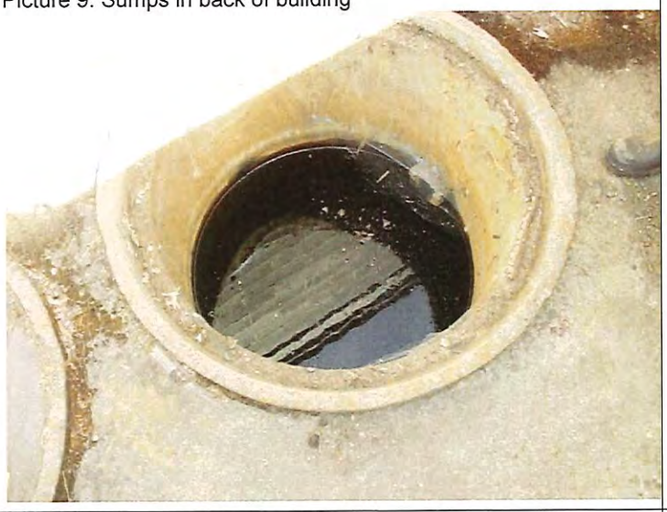
Picture 7: Behind building looking south



Picture 8: North side of building. (photo not taken by Craig Filip)



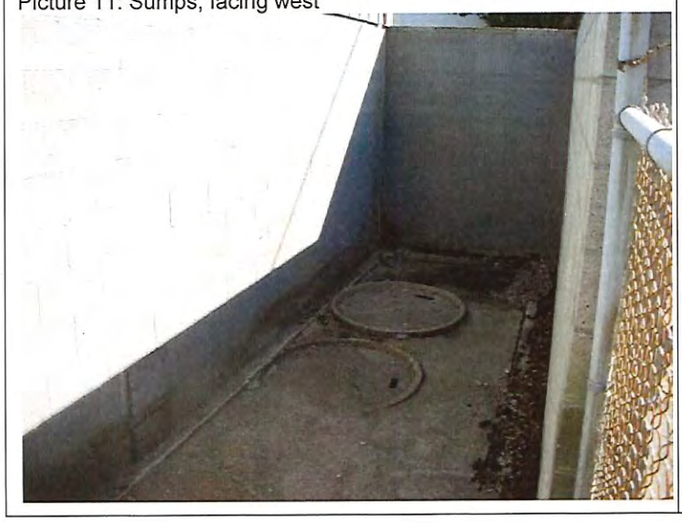
Picture 9: Sumps in back of building



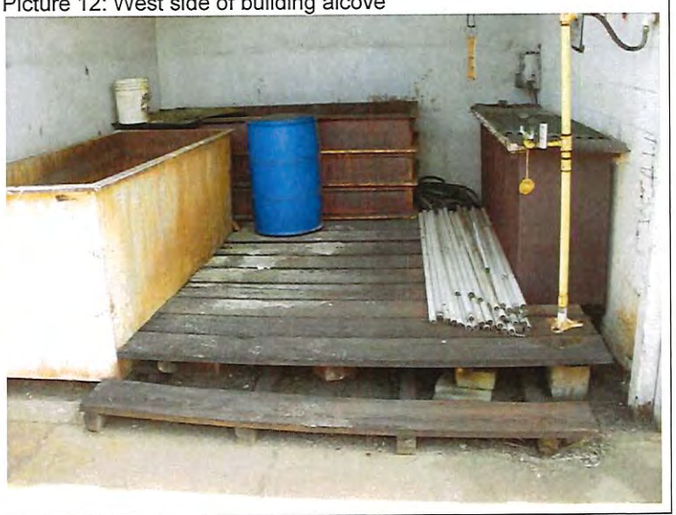
Picture 10: Sumps, looking east



Picture 11: Sumps, facing west



Picture 12: West side of building alcove



Site Inspection Photographs of Medford Plating taken on August 9, 2016 by Craig Filip

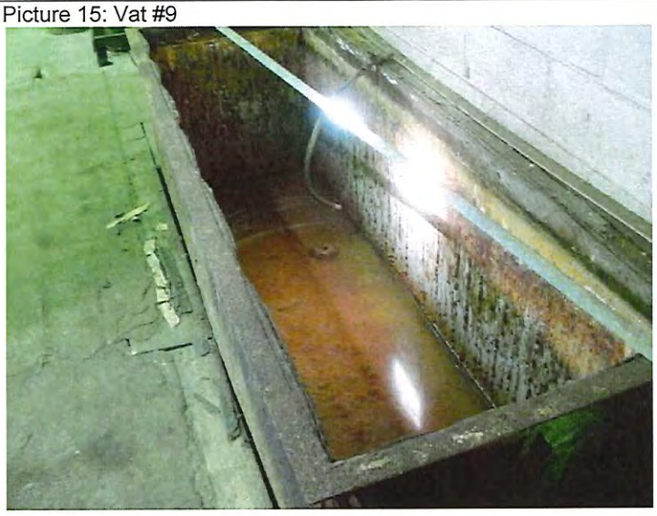
Picture 13: Used MT tanks, facing west



Picture 14: Used MT tanks, facing south



Picture 15: Vat #9



Picture 16: Vat #4



Picture 17: Vat #10



Picture 18: Floor sweepings in 5-gallon bucket

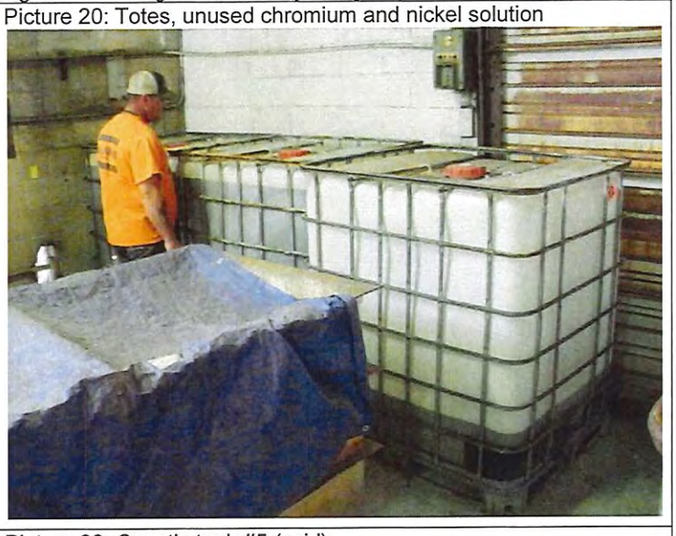


Inspection Photographs of Medford Plating taken on August 9, 2016 by Craig Filip

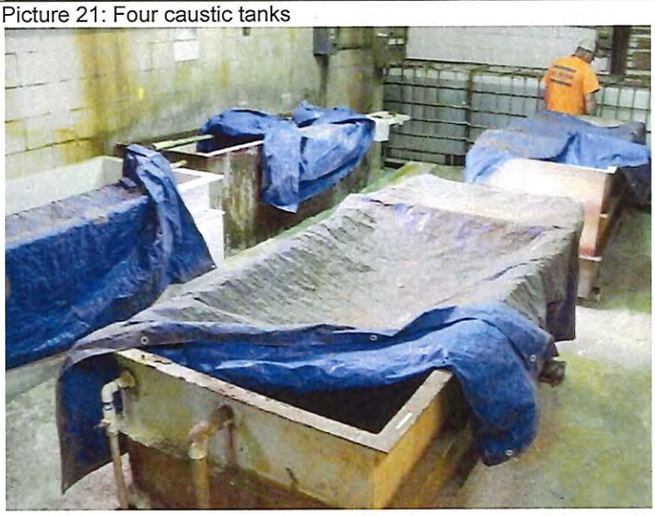
Picture 19: Totes, unused copper and nickel solutions



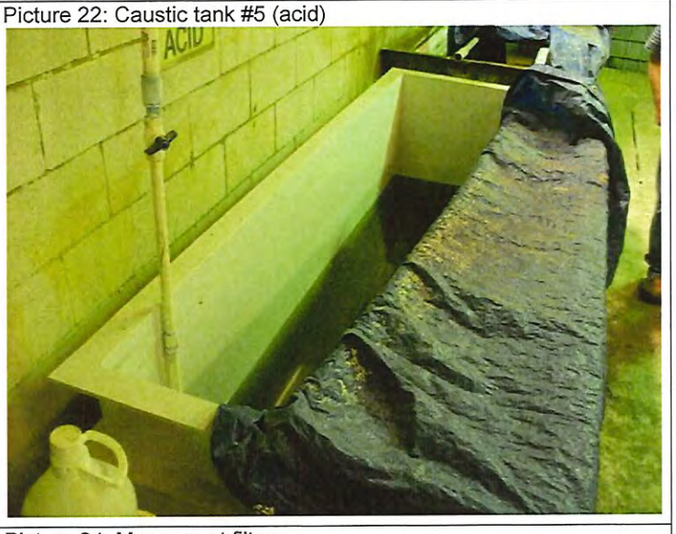
Picture 20: Totes, unused chromium and nickel solution



Picture 21: Four caustic tanks



Picture 22: Caustic tank #5 (acid)



Picture 23: Spent filters

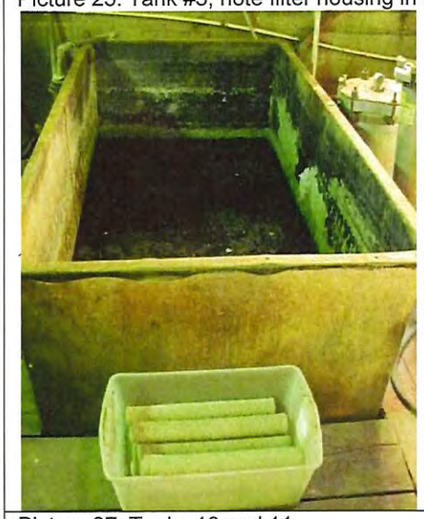


Picture 24: More spent filters



Site Inspection Photographs of Medford Plating taken on August 9, 2016 by Craig Filip

Picture 25: Tank #3, note filter housing in background



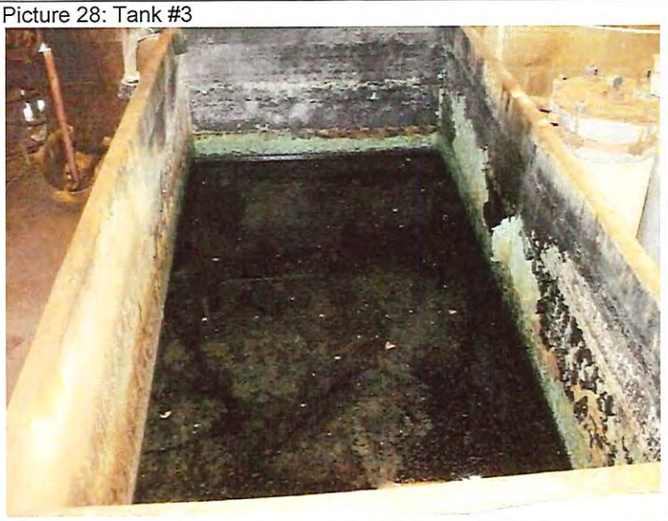
Picture 26: Tank #2



Picture 27: Tanks 10 and 11



Picture 28: Tank #3



Picture 29: Plating room



Picture 30: Tank #6



Site Inspection Photographs of Medford Plating taken on August 9, 2016 by Craig Filip

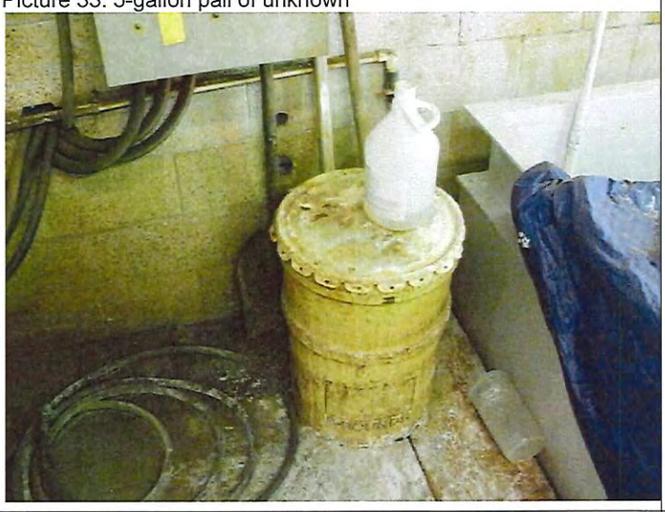
Picture 31: Tank #1 with plating liquid



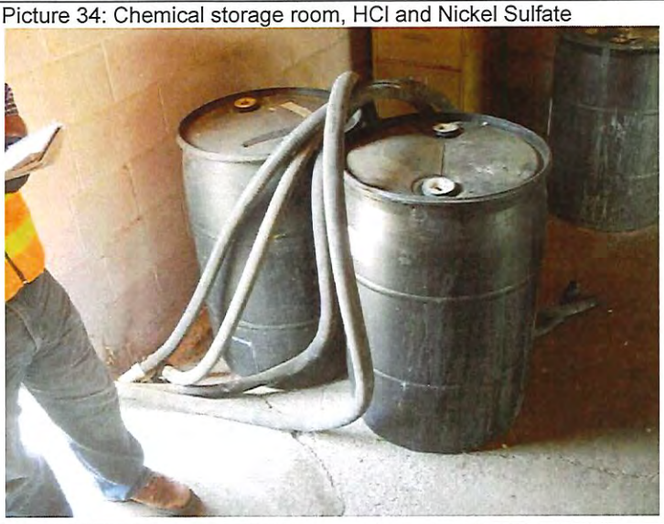
Picture 32: Tank #7



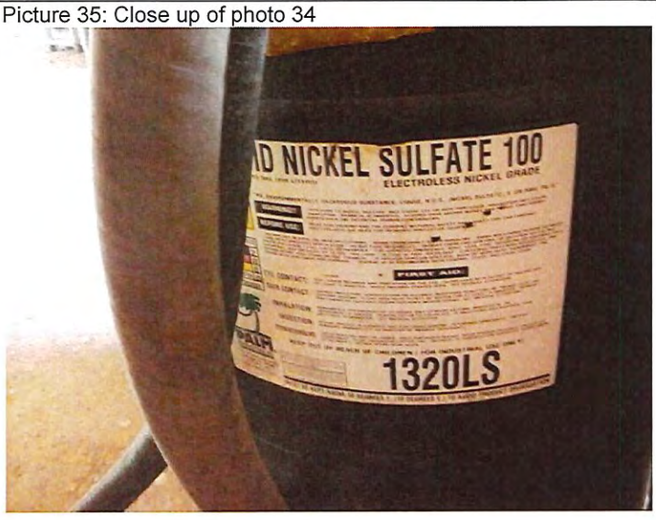
Picture 33: 5-gallon pail of unknown



Picture 34: Chemical storage room, HCl and Nickel Sulfate



Picture 35: Close up of photo 34

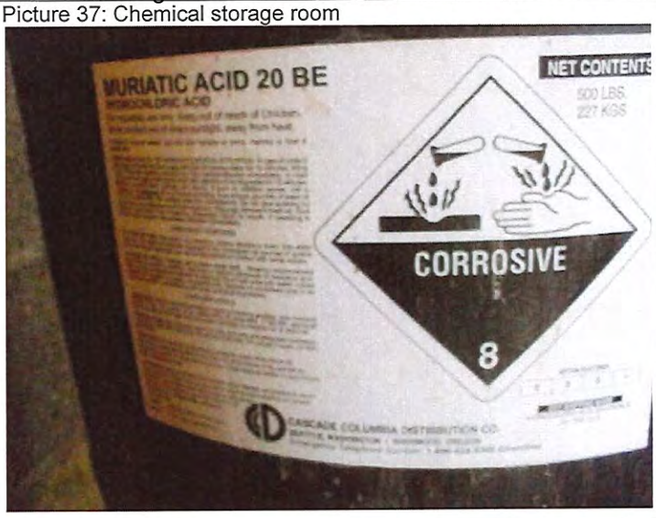


Picture 36: Close up of photo 34

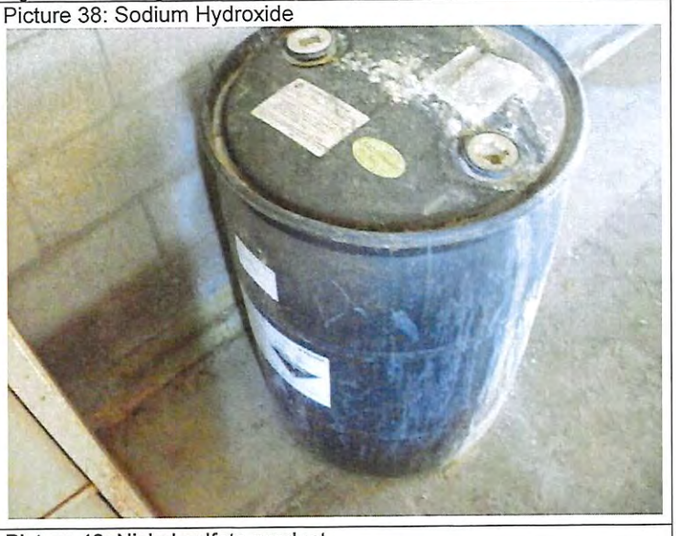


Site Inspection Photographs of Medford Plating taken on August 9, 2016 by Craig Filip

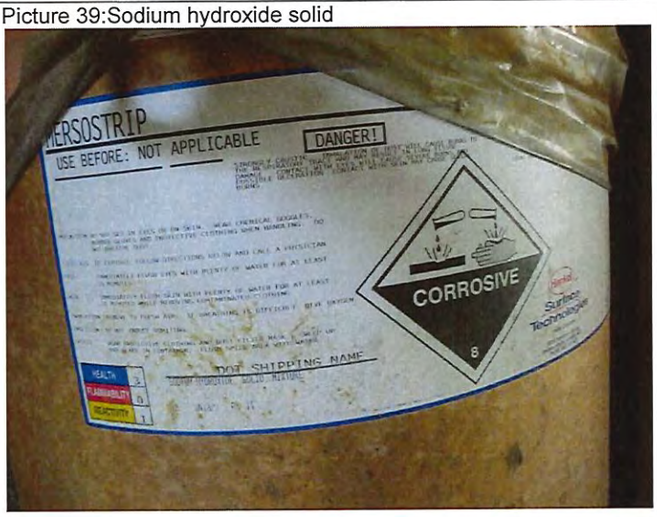
Picture 37: Chemical storage room



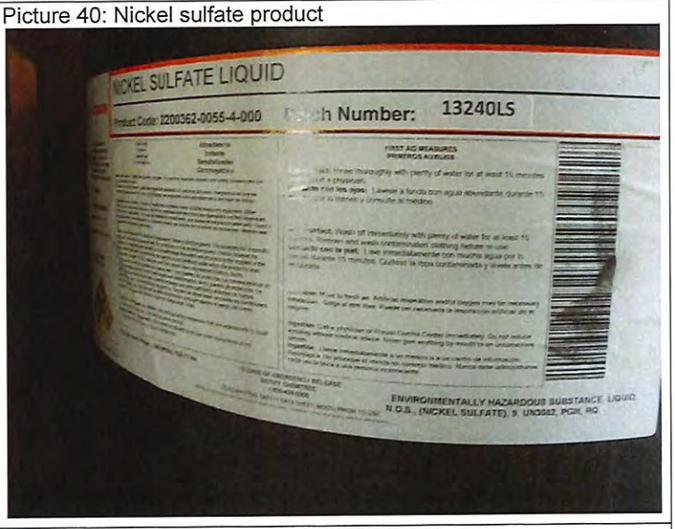
Picture 38: Sodium Hydroxide



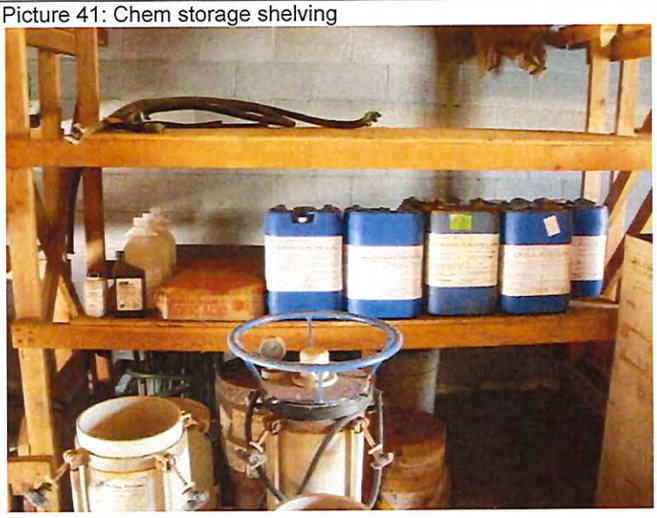
Picture 39:Sodium hydroxide solid



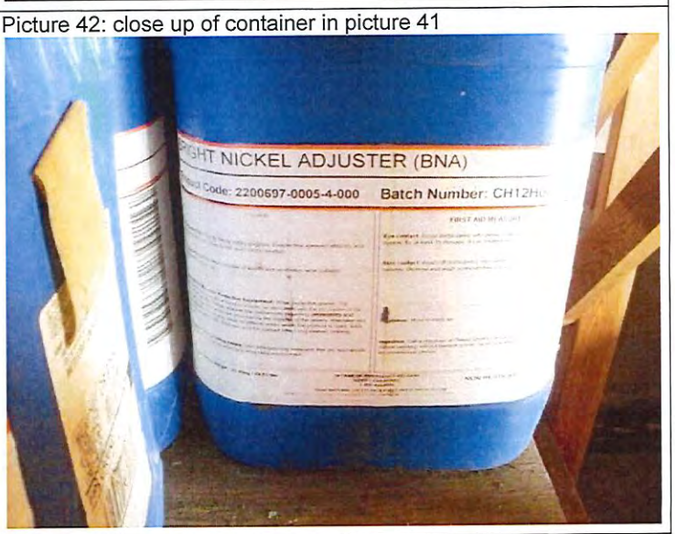
Picture 40: Nickel sulfate product



Picture 41: Chem storage shelving

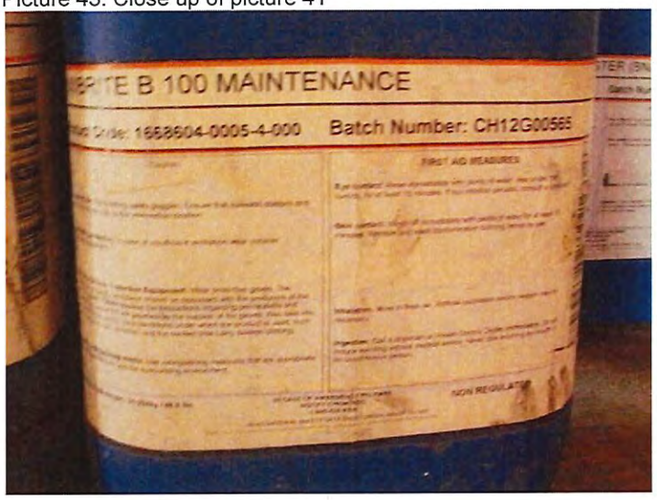


Picture 42: close up of container in picture 41

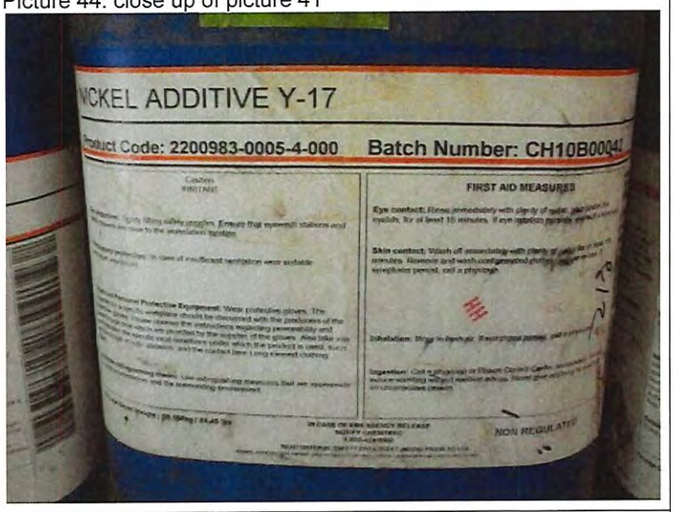


Site Inspection Photographs of Medford Plating taken on August 9, 2016 by Craig Filip

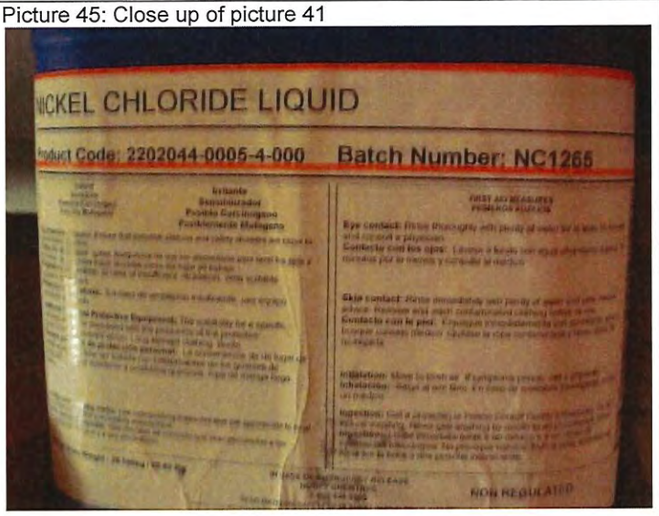
Picture 43: Close up of picture 41



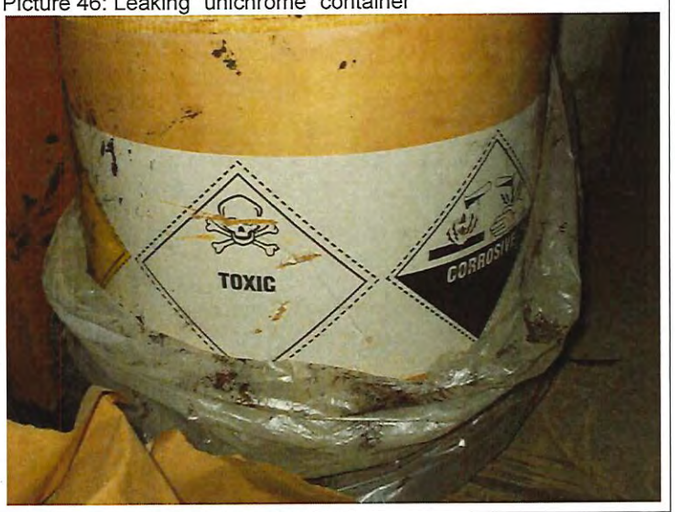
Picture 44: close up of picture 41



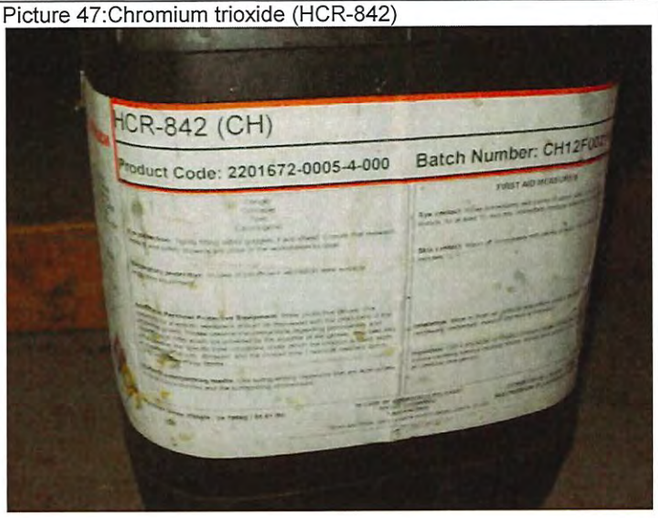
Picture 45: Close up of picture 41



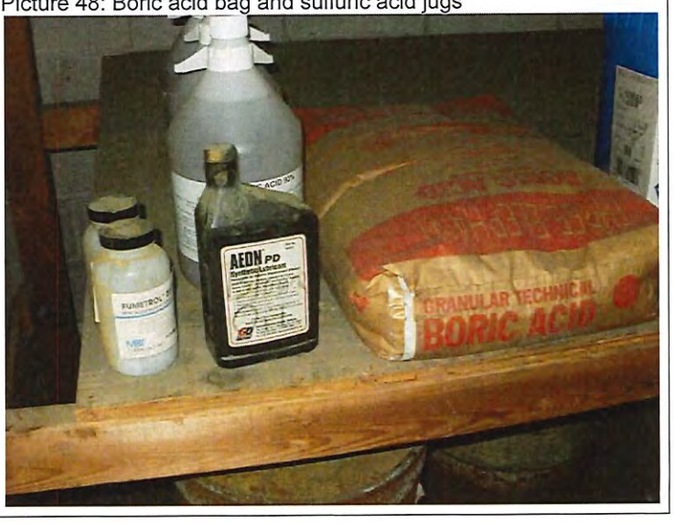
Picture 46: Leaking "unichrome" container



Picture 47:Chromium trioxide (HCR-842)



Picture 48: Boric acid bag and sulfuric acid jugs



Site Inspection Photographs of Medford Plating taken on August 9, 2016 by Craig Filip

Picture 49: Sulfuric acid unused



Picture 50:



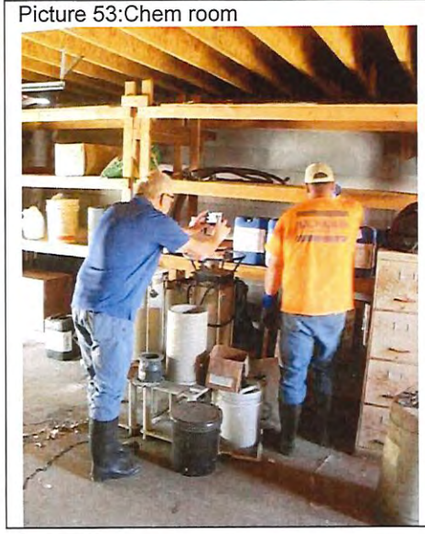
Picture 51: Nickel carbonate



Picture 52: Chem storage room, note unichrome release on floor



Picture 53:Chem room



Picture 54: Chem room, note release on floor

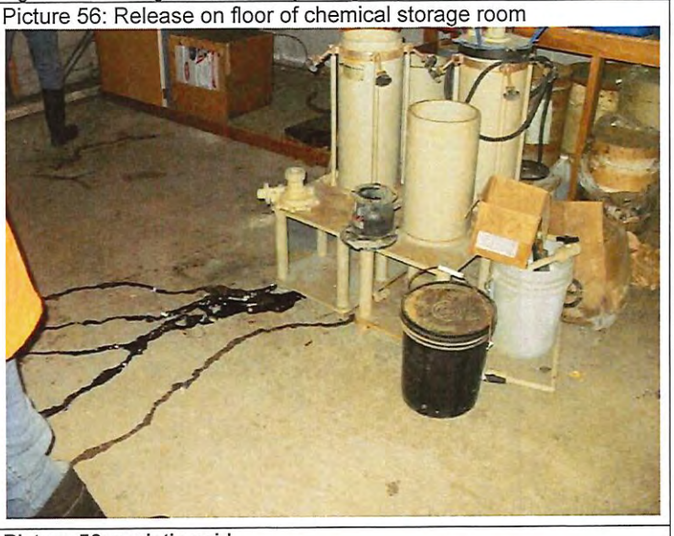


Site Inspection Photographs of Medford Plating taken on August 9, 2016 by Craig Filip

Picture 55: Leaking container



Picture 56: Release on floor of chemical storage room



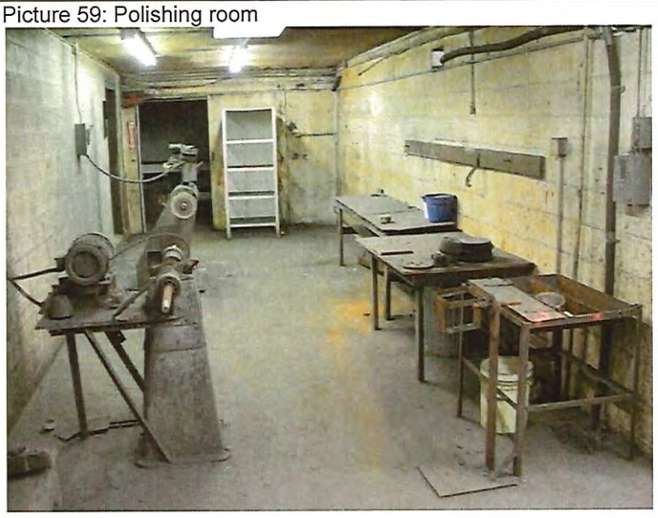
Picture 57: Leaking container



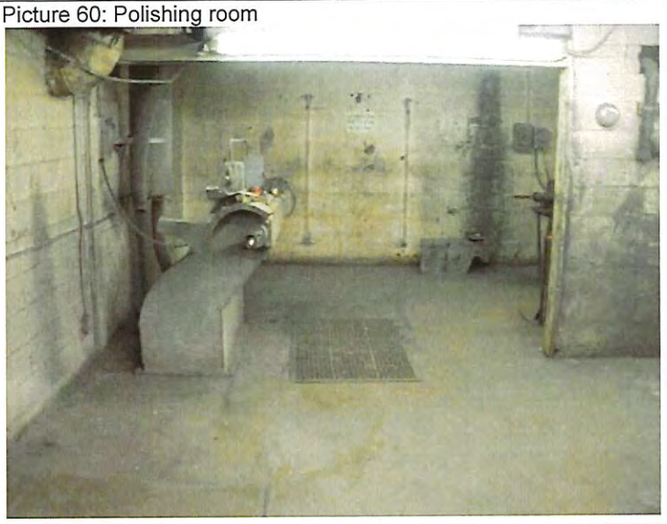
Picture 58:muriatic acid



Picture 59: Polishing room

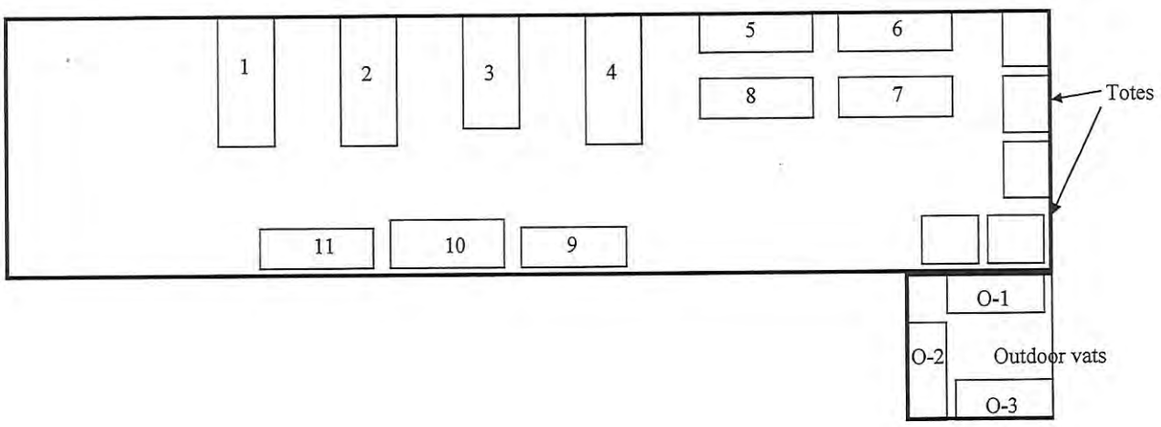


Picture 60: Polishing room



Site Inspection Photographs of Medford Plating taken on August 9, 2016 by Craig Filip

Picture 61: Polishing room 	Picture 62:
Picture 63:	Picture 64:
Picture 65:	Picture 66:



SMAF ENVIRONMENTAL

PLATING ROOM MAP
Medford Plating, Medford, OR
SMAF Project #TBD

TICOR TITLE COMPANY OF OREGON
1555 E. McAndrews, Suite 100, Medford, OR 97504
Phone: (541)779-2811 Fax: (541)772-6079

FINAL SELLER'S SETTLEMENT STATEMENT

Date: November 4, 2015
Settlement Date: November 4, 2015
Borrower: General Property Group LLC
PO BOX 8158
MEDFORD, OR 97501
Seller: Steven Mcghehey
PO BOX 702
SISTERS, OR 97759
Property: 702 S. Grape St
Medford, OR 97501

Time: 10:36 AM
Escrow No.: 470315043156
Escrow Officer: Kim Ayres

			DEBIT	CREDIT
Financial Consideration				
Total Consideration				145,000.00
Prorations/Adjustments				
County Taxes at $3,040.45				1,993.74
11/04/15 to 07/01/16				
Commissions				
Selling Broker's Commission to John L Scott Real Estate Grants Pass = 3,625.00			3,625.00	
Escrow Charges				
Settlement or closing fee			357.50	
Ticor Title Company of Oregon				
Title Charges				
Title Insurance			563.00	
Chicago Title Insurance Company				
Owner's Standard			220.00	
Reconveyance/Release Service Fee				
Ticor Title Company of Oregon			60.00	
Government Service Fee				
Ticor Title Company of Oregon				
Payoffs				
Pensco Trust FBO John W. Hornbeck IRA			135,873.65	
Total Payoff				
Principal Balance	135,873.65			
Other Debits/Credits				
Property Taxes 10375190		10375190	3,584.01	
Jackson County Payment Center				
Property Taxes 10375181		10375181	2,710.58	
Jackson County Payment Center				
Subtotals			146,993.74	146,993.74
			0.00	
TOTALS			146,993.74	146,993.74

Initials _____ _____

	DEBIT	CREDIT

Seller

Steven Mcghehey

Ticor Title Company of Oregon
Settlement Agent

DocuSign Envelope ID: 5AADB4C9B-0434-4FC7-9F84-7435EDA5A465

6FF

Sale Agreement # PC93015

FINAL AGENCY ACKNOWLEDGMENT

Both Buyer and Seller acknowledge having received the Oregon Real Estate Agency Disclosure Pamphlet, and hereby acknowledge and consent to the following agency relationships in this transaction: (1) Patricia Curtin (Name of Selling Licensee) of John L. Scott Real Estate Grants Pass (Name of Real Estate Firm) is the agent of *(check one)*: ☒ Buyer exclusively ("Buyer Agency"). ☐ Seller exclusively ("Seller Agency"). ☐ Both Buyer and Seller ("Disclosed Limited Agency"). (2) Jake Rockwell/Cord Allison (Name of Listing Licensee) of John L. Scott Medford/Ashland (Name of Real Estate Firm) is the agent of *(check one)*: ☒ Seller exclusively ("Seller Agency"). ☐ Both Buyer and Seller ("Disclosed Limited Agency").

(3) If both parties are each represented by one or more Licensees in the same Real Estate Firm, and Licensees are supervised by the same principal broker in that Real Estate Firm, Buyer and Seller acknowledge that said principal broker shall become the disclosed limited agent for both Buyer and Seller as more fully explained in the Disclosed Limited Agency Agreements that have been reviewed and signed by Buyer, Seller and Licensee(s).

Buyer shall sign this acknowledgment at the time of signing this Agreement before submission to Seller. Seller shall sign this acknowledgment at the time this Agreement is first submitted to Seller, even if this Agreement will be rejected or a counter offer will be made. Seller's signature to this Final Agency Acknowledgment shall not constitute acceptance of this Agreement or any terms therein.

Buyer K. Scott, manager Print General Property Group LLC Date 09/30/2015 ←

Buyer _____ Print _____ Date _____ ←

Seller Steven Mcghehey (DocuSigned by: 012BD81E32E144A...) Print Steven Mcghehey Date 10/2/2015 ←

Seller _____ Print _____ Date _____ ←

COMMERCIAL REAL ESTATE SALE AGREEMENT

This Agreement is intended to be a legal and binding contract. If it is not understood, seek competent legal advice before signing. Time is of the essence of this Agreement.

1. DEFINITIONS/INSTRUCTIONS: (1) All references in this Sale Agreement to "Licensee" and "Firm" shall refer to Buyer's and Seller's real estate agents licensed in the State of Oregon and the respective real estate companies with which they are affiliated. (2) Licensee(s) and Firm(s) identified in the Final Agency Acknowledgment Section above are not parties to this Agreement, except as may be expressly applicable. (3) A "business day" shall mean Monday through Friday, except recognized legal holidays as enumerated in ORS 187.010 and 187.020. (4) Unless Seller and Buyer expressly provide otherwise, the phrase "signed and accepted" in the printed text of this Sale Agreement, or any addendum, or counteroffer, however designated (collectively, "the Agreement"), shall mean the date and time that either the Seller and/or Buyer has/have: (a) Signed their acceptance of the Agreement received from the other party, or their licensee, and (b) Transmitted it to the sending party, or their licensee, either by manual delivery ("Manual Delivery"), or by facsimile or electronic mail (collectively, "Electronic Transmission"). (5) The sending of a signed acceptance of the Agreement via Electronic Transmission from one party, or their licensee, to the other party, or their licensee, shall have the same effect as Manual Delivery of the signed original. If the parties intend to use any other method for transmitting a signed offer or acceptance of the Agreement (such as regular mail, certified mail, or overnight delivery), they should so specify at Section 7 (Additional Provisions) of this Sale Agreement. (6) Time calculated in days after the date Buyer and Seller have signed and accepted the Agreement shall start on the first full business day after the date they have signed and accepted it. (7) Excepting only the Lead-Based Paint Contingency Period identified in Section 17, below, unless a different time is specified in the Agreement, all deadlines for performance, however designated, that are measured in business or calendar days, shall terminate as of 5:00 PM on the last day of that deadline, however designated.

2.1 PRICE/PROPERTY DESCRIPTION: Buyer *(print name(s))* General Property Group LLC

offers to purchase from Seller *(print name(s))* Steven Mcghehey

the following described property and all improvements thereon (hereinafter "the Property") situated in the State of Oregon, County of Jackson, and commonly known or identified as *(insert street address, city, zip code, tax identification number, lot/block description, etc.)* 37-1W-30 CD Tax lots 5200 and 5201 702 S Grape St, Medford, OR 97501

Buyer Initials KC/ Date 9/30/15

Seller Initials SM Date 10/2/2015

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LINES WITH THIS SYMBOL ← REQUIRE A SIGNATURE OF BUYER AND/OR SELLER AND DATE

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Sale Agreement # PC93015

(Buyer and Seller agree that if it is not provided herein, a complete legal description as provided by the title insurance company in accordance with Section 8, below, shall, where necessary, be used for purposes of legal identification and conveyance of title.)
for the Purchase Price (in U.S. currency) of ..... A $ 140,000.00
on the following terms: earnest money herein receipted for ..... B $ 500.00
on _____, as additional earnest money, the sum of ..... C $ _____
at or before Closing, the balance of down payment ..... D $ _____
at Closing and upon delivery of [X] DEED [ ] CONTRACT the balance of the Purchase Price ..... E $ 139,500.00
(Lines B, C, D and E should equal Line A)

2.2 BALANCE OF PURCHASE PRICE. *(Select A or B)*

A. [X] **This is an all cash transaction.** Buyer to provide verification ("Verification") of readily available funds as follows *(select only one)*: [ ] Buyer has attached a copy of the Verification with the submission of this Agreement to Seller or Listing Licensee. [ ] Buyer will provide Seller or Listing Licensee with the Verification within _____ business days (five [5] if not filled in) after this Agreement has been signed and accepted; or [ ] Other *(Describe)*: _____
Seller may notify Buyer or Buyer's Licensee, in writing, of Seller's unconditional disapproval of the Verification within _____ business days (five [5] if not filled in) ("Disapproval Period") following its receipt by Seller or Listing Licensee, in which case, all earnest money deposits shall be promptly refunded and this transaction shall be terminated. If Seller fails to provide Buyer or Selling Licensee with written unconditional disapproval of the Verification by 5:00 p.m. of the Disapproval Period, Seller shall be deemed to have approved the Verification. If Buyer fails to submit a Verification within a time frame selected above, unless the parties agree otherwise in writing, all earnest money deposits shall be promptly refunded and this transaction shall be terminated.

B. [ ] **Balance of Purchase Price to be financed as follows** (Select only one): [ ] Conventional; [ ] FHA; [ ] Federal VA; [ ] Other (Describe): _____ (hereinafter "Loan Program"). **Buyer agrees to seek financing through a lending institution ("Lender") participating in the Loan Program identified above.**

Pre-Approval Letter. [ ] Buyer has attached a copy of a Pre-Approval Letter from Buyer's Lender or mortgage broker; [X] Buyer does not have a Pre-Approval Letter at the time of making this offer. [ ] Buyer agrees to secure a Pre-Approval Letter as follows: _____

3.1 FINANCING CONTINGENCIES. If Buyer is financing any portion of the Purchase Price, this transaction is subject to the following financing contingencies: (1) Buyer and the Property to qualify for the loan from Lender; (2) Lender's appraisal shall not be less than the Purchase Price; and 3) Other (Describe): _____

All Financing Contingencies are solely for Buyer's benefit and may be waived by Buyer in writing at any time.

3.2 FAILURE OF FINANCING CONTINGENCIES. If Buyer receives actual notification that any Financing Contingencies identified above have failed or otherwise cannot occur, Buyer shall promptly notify Seller, and the parties shall have _____ business days (two [2] if not filled in) following the day of Seller's receipt of such notification to either (a) Terminate this transaction by signing a Termination Agreement (OREF-057) or such other similar form as may be provided by Escrow; or (b) Reach a written mutual agreement upon such price and terms that will permit this transaction to continue. Neither Seller nor Buyer is required under the preceding provision (b) to reach such agreement. If (a) or (b) fail to occur within the time period identified herein, this transaction shall be automatically terminated and all earnest money shall be promptly refunded to Buyer. Buyer understands that upon termination of this transaction, Seller shall have the right to immediately place the Property back on the market for sale upon any price and terms as Seller determines, in Seller's sole discretion.

3.3 BUYER REPRESENTATION REGARDING FINANCING: As of the date of signing this Agreement, Buyer makes the following representations to Seller:
(1) Buyer shall apply for a loan not later than _____ business days (three [3] if not filled in) following the date Buyer and Seller have signed this Agreement, and will thereafter complete all reasonably necessary papers in a timely manner and exercise best efforts (including payment of all application, appraisal and processing fees, where applicable) to obtain the loan;
(2) Buyer shall make a good faith effort to secure the ordering of the Lender's appraisal no later than expiration of the Inspection Contingency Period in Section 16.2 of this Agreement, or if the Professional Inspection Addendum (OREF-058) is used, expiration of the Inspection Period;
(3) Buyer currently has liquid and available funds for the earnest money deposit and down payment, sufficient to Close the transaction described herein, and is not relying upon any contingent source of funds (e.g., from loans, gifts, sale or Closing of other property, 401K disbursements, etc.), except as follows (describe):
_____
_____
(4) Buyer authorizes Buyer's Lender or mortgage broker to provide non-confidential information to Listing and Selling Licensees regarding Buyer's loan application status.

Buyer Initials CC / ___ Date 9/30/15

Seller Initials DS SM / ___ Date 10/2/2015

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LINES WITH THIS SYMBOL ← REQUIRE A SIGNATURE OF BUYER AND/OR SELLER AND DATE

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Sale Agreement # PC93015

(5) Buyer shall promptly notify Seller or Seller's Licensee if, after signing this Agreement, Buyer substitutes another lender for any reason. Notwithstanding the preceding, Buyer shall not be permitted to select a Loan Program different than the one selected in Section 2.2 (B) above, without Seller's advance written consent.
(6) Buyer agrees to keep Seller promptly informed of all other material non-confidential developments regarding Buyer's financing and the timing of Closing.

3.4 **INSURANCE:**

Buyer is encouraged to promptly verify the availability and cost of property/casualty/ fire insurance that will be secured for the Property. Additionally, lenders may require proof of property/casualty/fire insurance as a condition of the loan.

3.5 **FLOOD INSURANCE; ELEVATION CERTIFICATE:** If the Property is located in a designated flood zone, flood insurance may be required as a condition of a new loan. Buyer is encouraged to promptly verify the need, availability, and cost of flood insurance, if applicable. An Elevation Certificate ("EC") is the document used by the federal National Flood Insurance Program ("NFIP") to determine the difference in elevation between a home or building, and the base flood elevation ("BFE"), which is a computed elevation to which floodwater is anticipated to rise during certain floods. The amount of the flood insurance premium for a particular property is based upon the EC. Not all properties in flood zones require an EC, depending upon when they were constructed. ECs must be prepared and certified by a land surveyor, engineer, or architect who is authorized by the local jurisdiction to certify elevation information. The costs and fees for an EC may range from a few hundred dollars to over a thousand. If the Property requires an EC, it will need to be obtained prior to receiving a flood insurance quote. Additionally, lenders may require an EC as a condition of loan approval. For more information, go to the following link: http://www.fema.gov/media-library-data/20130726-1914-25045-8243/floodsmart_factsheet_homeowners.pdf.

4. **RECEIPT FOR EARNEST MONEY:** Selling Firm acknowledges receipt of earnest money from Buyer in the sum of $ 500.00 evidenced by ☐ CASH ☐ CHECK ☒ PROMISSORY NOTE payable as follows: _____
☒ 5 ☒ business ☐ calendar days *(check one)* after this Agreement has been signed and accepted; or
☐ on or before _____, _____.
☐ Other form of Earnest Money: _____

5. **EARNEST MONEY INSTRUCTIONS:** Buyer instructs Selling Firm, and Selling Firm agrees, to handle the earnest money as follows *(check all that apply)*:
☐ Hold any earnest money that is in the form of a check undeposited until this Agreement has been signed and accepted and/or the terms of any final counter offer(s), after which time deposit it as provided herein within three (3) banking days.
☐ Deposit any earnest money funds redeemed under a promissory note with _____.
☐ Deposit in Selling Firm's client trust account, and thereafter/or ☒ Deposit with Escrow.

Non-refundable Deposit. *(Do not complete A and B, below, unless the deposit is intended to become nonrefundable. If deposit(s) is/are in Escrow, additional written instructions may be necessary.)* Buyer and Seller agree that (*Check one or both of the following two boxes*):
☐ the earnest money deposit of $_____ and/or ☐ the additional earnest money deposit of $ _____ shall become nonrefundable for all purposes except those cases in which Seller's default results in a failure of this transaction to Close in accordance with this Agreement:

A: **Terms of disbursement/holding of nonrefundable deposit** (*Select only one of the following three boxes below*):
☐ Disburse directly to Seller as follows: _____
☐ Remain in Escrow and disburse to Seller upon Closing or earlier termination of this transaction, or
☐ Remain in Selling Firm's client trust account and disburse to Seller upon Closing or earlier termination of this transaction;

B: **Event/timing of non-refundability**
The deposit(s) shall become nonrefundable immediately upon the occurrence of the following
(*Select only one of the following four boxes in B.*)
☐ *(insert date)* _____
☐ *(insert event)* _____
☐ *(insert conditions to be satisfied or waived after which time disbursement shall occur)* _____
☐ Other: _____

Buyer Initials KCI ___ Date 9/30/15

Seller Initials DS SM ___ Date 10/2/2015

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Sale Agreement # PC93015

SELLING LICENSEE AND SELLING FIRM SHALL HAVE NO FURTHER LIABILITY WITH RESPECT TO EARNEST MONEY WHICH THE PARTIES HAVE AUTHORIZED TO BE TRANSFERRED TO A THIRD PARTY.

Selling Firm John L. Scott Real Estate Grande Pass Selling Licensee Signature

Office Address 703 NE 7th St, Grande Pass, OR 97526 Phone (541) 476-1299 FAX (541) 471-6244

6. EARNEST MONEY PAYMENT/REFUND: If (1) Seller does not approve this Agreement; or (2) Seller signs and accepts this Agreement but fails to furnish marketable title; or (3) Seller fails to complete this transaction in accordance with this Agreement, or perform any other act as herein provided; or (4) any condition which Buyer has made an express contingency in this Agreement (and has not been otherwise waived) fails through no fault of Buyer, then all earnest money shall be promptly refunded to Buyer. However, acceptance by Buyer of the refund shall not constitute a waiver of other legal remedies available to Buyer. If Seller signs and accepts this Agreement and title is marketable, and (1) Buyer has misrepresented Buyer's financial status; or (2) Buyer's bank does not pay, when presented, any check given as earnest money; or (3) Buyer fails to redeem, when due, any note given as earnest money; or (4) Buyer fails to complete this transaction in accordance with this Agreement, or perform any other act as herein provided, then all earnest money paid or agreed to be paid shall be paid to Seller either as liquidated damages or as otherwise allowed under Oregon law, and this transaction shall be terminated. It is the intention of the parties that Seller's sole remedy against Buyer for Buyer's failure to close this transaction shall be limited to the amount of earnest money paid or agreed to be paid hereof.

7. ADDITIONAL PROVISIONS AND CONDITIONS TO PURCHASE: Seller and related to buying company's management: Buyer may obtain private agency financing to be handled through escrow. Transaction is not contingent on financing.

For additional provisions, see Addendum

8. TITLE INSURANCE: Unless otherwise provided herein, this transaction is subject to Buyer's review and approval of the exceptions disclosed on a preliminary title report and the recorded covenants, conditions and restrictions ("the Report and CC&Rs") showing the condition of title to the Property. If not fully understood, Buyer should immediately contact the title insurance company for further information or seek competent legal advice. Neither Listing nor Selling Licensee is qualified to advise on specific legal or title issues.) Upon signature and acceptance of this Agreement by Buyer and Seller, Seller will, at Seller's sole expense, promptly order the Report from an Oregon title insurance company and furnish it to Buyer together with complete and legible copies of all exceptions noted in the Report. Upon receipt of the Report, Buyer shall have business days (five [5] if not filled in) thereafter within which to notify Seller, in writing, of any matter(s) disclosed in the report which is unacceptable to Buyer ("the Objection"). Buyer's failure to timely object to any exceptions disclosed in the Report shall constitute acceptance of those exceptions. However, Buyer's failure to timely object shall not relieve Seller of the duty to convey marketable title pursuant to Section 9 below. If, within business days (five [5] if not filled in) following receipt of Buyer's Objection(s), if any, Seller fails to remove or correct them, or does not give written assurances reasonably satisfactory to Buyer that they will be removed or corrected, all earnest money shall be promptly refunded to Buyer and this transaction shall be terminated. This contingency is solely for Buyer's benefit and may be waived by Buyer in writing. Within thirty (30) days after Closing, Seller shall furnish to Buyer an owner's standard form policy of title insurance insuring marketable title in the Property to Buyer in the amount of the purchase price, free and clear of the Objections and all other title exceptions agreed to be removed as part of this transaction. So long as doing so shall be at no additional expense to Seller, Seller shall cooperate in all reasonable respects with the delivery to Buyer of an ALTA extended form policy of title insurance and any endorsements requested by Buyer.

9. DEED: Seller shall convey marketable title to the Property by *(check one)*: ☒ statutory warranty deed or ☐ _____

(If neither box is checked a statutory warranty deed shall be used.) Free and clear of all liens of record, except property taxes which are a lien but not yet payable, zoning ordinances, building and use restrictions, reservations in Federal patents, easements of record which affect the Property, covenants, conditions and restrictions of record, and those matters accepted by Buyer pursuant to Section 8 above.

10. SELLER-CARRIED FINANCING (E.G. LAND SALE CONTRACT/TRUST DEED/MORTGAGE/OPTION AGREEMENTS, RENT-TO-OWN, ETC.): *Note: If this transaction involves a land sale contract,* trust deed, mortgage, option, or lease-to-own agreement (hereinafter a "Seller-Carry Transaction") Oregon law requires that, unless exempted, individuals offering or negotiating the terms must hold a mortgage loan originator ("MLO") license. Your real estate license is not qualified to provide these services or to advise you in this regard. Legal advice is strongly recommended. Oregon law exempts the following individuals from the MLO licensing law: (a) Those who offer or negotiate terms of a residential mortgage loan with or on behalf of their spouse, child, sibling, parent, grandparent, grandchild in a relative in a similar relationship created by law, marriage or adoption; (b) Those who sell their primary residence they currently or previously lived in; and (c) Individuals who sell up to three (3) non-primary residences per 12-month period. (Note: One may not hold more than eight residential mortgage loans at one time.)

If this is a Seller-Carried Transaction, it shall be subject to Seller's determination whether to employ a Mortgage Loan Originator to offer and negotiate the terms of financing with Buyer. Seller shall make that determination and notify Buyer or Buyer's licensee in writing not later than (five [5] if not filled in) business days after the date Buyer and Seller have signed and accepted this Sale Agreement ("the Notification Deadline"). Seller's failure to timely notify Buyer or Buyer's licensee, shall constitute an automatic election by Seller to offer and negotiate the terms of the transaction on Seller's own behalf.

Buyer Initials _____ Date 7/10/15

Seller Initials SM Date 10/27/2015

OS

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COMMERCIAL REAL ESTATE SALE AGREEMENT – Page 4 of 11

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Sale Agreement # EC93015

The parties and/or their MLOs shall thereafter reach a binding written agreement upon the terms and conditions of their Seller-Carried Transaction not later than _____ business days (seven [7] if not filled in) after the date Seller has notified Buyer whether Seller will use a MLO, or the end of the Notification Deadline, whichever first occurs ("the Negotiation Period"). Upon failure of Buyer and Seller, and/or their MLOs to reach agreement as to the terms and conditions of the Seller-Carried Transaction within the Negotiation Period, this transaction shall automatically terminate, and all parties shall cooperate in signing such documentation reasonably necessary to effect a termination of this transaction and a refund of all deposits, if any, to Buyer.

Caveat: Buyer and Seller are strongly encouraged to secure competent legal advice in drafting any legally binding agreements relating to the Seller-Carried Transaction. If Escrow (as defined in Section 18) is instructed to prepare the note and trust deed or mortgage to be used in this transaction, state statute requires that Buyer and Seller receive from Escrow, at least three (3) days prior to Closing (as defined in Section 20), a statutory notice and a copy of the proposed documents. This requirement cannot be waived by Buyer or Seller without the approval of both of their respective Oregon-licensed attorneys.

11. FIXTURES AND PERSONAL PROPERTY: Except as provided in this Section 11, all fixtures, including trade fixtures, are to be left upon the Property as part of the Property being purchased, and all personal property is excluded from this transaction.
The following fixtures and/or trade fixtures are excluded from the Property being purchased: _____

The following personal property, in "AS-IS" condition is included as a part of the Property being purchased: All equipment currently located at the property to be included in sale. ←

(Attach inventory, if necessary.) If certain personal property which is to be included as a part of this sale is to have a separately stated value in addition to the purchase price, the parties agree to attach a separate exhibit, jointly signed, identifying the stated value(s) of such property within _____ business days (five [5] if not filled in) following the date both parties have signed this Agreement.

12. EXISTING LEASES: The Property *(check one)*: ☐ is ☒ is not subject to one or more existing leasehold interests, which Seller represents and warrants are current and free from default. If applicable, Seller agrees to deliver complete and legible copies of the written lease(s) to Buyer for review within _____ business days (three [3] if not filled in) following the date Buyer and Seller have signed this Agreement. Buyer and Seller shall have _____ business days (five [5] if not filled in) following Buyer's receipt of all lease(s) within which to reach a signed written agreement with Seller regarding Buyer's approval of the lease(s) and the conditions, if any, under which they will be assumed and/or assigned. In the event such written agreement is not reached within the time provided herein, all earnest money shall be refunded to Buyer and this transaction shall be terminated. This condition is for the benefit of both Buyer and Seller, and may not be waived by either party without the other's written consent.

13. SELLER'S DOCUMENTS: *(check one)*: ☐ Seller has previously delivered to Buyer copies of all documents containing material information about the Property that Seller has in Seller's possession or control including but not limited to documents and records relating to the ownership, operation and maintenance of the Property (hereinafter "Relevant Business Documents"). ☐ Seller agrees that within _____ business days (ten [10] if not filled in) following the date Buyer and Seller have signed this Agreement, Seller will deliver to Buyer Relevant Business Documents. In addition to Relevant Business Documents, Seller shall, within the same period as provided in this Section 13, deliver to Buyer the following additional information: _____

14. SELLER REPRESENTATIONS: Subject to other written disclosures made by Seller as a part of this transaction, Seller makes the following representations to Buyer:
(1) Seller has full and complete authority to enter into this Agreement and convey the Property in accordance with the terms hereof.
(2) Seller has no notice from any governmental agency of a condemnation, environmental, zoning or similar proceeding, existing or planned, which could affect the use, development, operation or value of the Property.
(3) Seller has no knowledge of any hazardous substances in or about the Property.
(4) Seller knows of no material structural defects in or about the Property.
(5) All electrical wiring, heating, cooling, plumbing and irrigation equipment and systems and the balance of the Property, including landscaping, if any, will be in substantially its present condition at the time Buyer is entitled to possession.
(6) Seller has no notice of any liens or assessments to be levied against the Property.
(7) Seller has no notice from any governmental agency of any violation of law relating to the Property.
(8) Seller is not a "foreign person" under the Foreign Investment in Real Property Tax Act ("FIRPTA") as defined in this Agreement.
(9) Seller knows of no material discrepancies between visible lines of possession and use (such as existing fences, hedges, landscaping, structures, driveways, and other such improvements) currently existing on the Property offered for sale and the legal description of the Property.

Buyer Initials KCl Date 9/30/15

Seller Initials SM DS Date 10/2/2015

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Sale Agreement # RC93015

(10). Seller shall keep the Property fully insured through Closing.
Seller agrees to promptly notify Buyer if, prior to Closing, Seller receives actual notice of any event or condition which could result in making any previously disclosed material information relating to the Property substantially misleading or incorrect. These representations are made to the best of Seller's knowledge. Seller may have made no investigations. Exceptions to items (1) through (10) are:

Buyer acknowledges that the above representations are not warranties regarding the condition of the Property and are not a substitute for, nor in lieu of, Buyer's own responsibility to conduct a thorough and complete independent investigation, including the use of professionals, where appropriate, regarding all material matters bearing on the condition of the Property, its value and its suitability for Buyer's intended use. Neither Listing nor Selling Licensee shall be responsible for inspecting or conducting any investigation of any aspects of the Property.

1S: "AS-IS": Except for Seller's express written agreements and written representations contained herein, Buyer is purchasing the Property "AS-IS" in its present condition and with all defects apparent or not apparent.

INSPECTIONS: *(CHECK ONLY ONE BOX)*

1&1 ENVIRONMENTAL HEALTH CONDITIONS: The following list identifies some, but not all, environmental conditions that may be found in and around all real property that may affect health: Asbestos, carbon monoxide, electric and magnetic fields, formaldehyde, lead and other contaminants in drinking water and well water, lead based paint, mold and mildew, radon, and leaking underground storage tanks. If Buyer has any concerns about these conditions or others, Buyer is encouraged to secure the services of a professional inspector, consultant or health expert for information and guidance. Neither the listing nor selling licensees are experts in environmental health hazards or conditions. For additional information, go to the Oregon Association of Realtors® Buyer advisory at: http://www.oregonrealtors.org and the Oregon Public Health Division at http://public.health.oregon.gov/Pages/Homes.aspx

1&2 INSPECTIONS: Buyer understands that it is advisable to have a complete inspection of the Property by qualified professional(s) relating to such matters as structural condition, soil condition/compaction/stability, environmental issues, survey, zoning, operating systems and suitability for Buyer's intended purpose. Neither the Listing nor Selling Licensee is qualified to conduct such inspections and shall not be responsible to do so. It is some or all of the Property includes residential housing, Buyer is encouraged to review the Oregon Property Buyer Advisory at "http://www.oregonrealtors.org".

☒ PROFESSIONAL INSPECTIONS: At Buyer's sole expense and risk, Buyer may have the Property and all elements and systems thereof inspected by one or more professionals of Buyer's choice at reasonable times after prior notice to Seller and after prior notice to any tenants of the Property as required by tenants' leases. Provided, however, Buyer must specifically identify in this Agreement any desired inspections which may include testing or removal of any portion of the Property including radon and mold. Buyer understands that Buyer is responsible for the restoration of the Property following any inspection(s)/test(s) performed by Buyer or on Buyer's behalf. Buyer shall have 15 business days (ten [10] if not filled in), after the date Buyer and Seller have signed this Agreement, (hereinafter "the Inspection Period") in which to complete all inspections and negotiations with Seller regarding any matters disclosed in any inspection report. However, during the Inspection Period, Seller shall not be required to modify any terms of this Agreement already reached with Buyer. Unless a written and signed modification is reached, at any time during the Inspection Period, Buyer may notify Seller or Listing Licensee, in writing, of Buyer's unconditional disapproval of the Property based on any inspection report(s); in which case, all earnest money deposits shall be promptly refunded and this transaction shall be terminated. Buyer shall indemnify, hold harmless and defend Seller from all liens, costs, and expenses, including reasonable attorneys', fees and experts' fees, arising from or relating to Buyer's entry on and inspection of the Property. This agreement to indemnify, hold harmless, and defend Seller shall survive Closing or any termination of this transaction. Buyer shall promptly provide a copy of all reports to Seller only if requested by Seller. If Buyer fails to provide Seller or Listing Licensee with written unconditional disapproval of any inspection report(s) by 5:00 p.m. of the final day of the Inspection Period, Buyer shall be deemed to have accepted the condition of the Property. Note that if, prior to expiration of the Inspection Period, written agreement is reached with Seller regarding ALL Buyer's requested repairs, the Inspection Period shall automatically terminate, unless the parties agree otherwise in writing.

Identify additional inspections: _____

☐ BUYER'S WAIVER OF INSPECTION CONTINGENCY: Buyer represents to Seller and all Licensees and Firms that Buyer is fully satisfied with the condition of the Property and all elements and systems thereof and knowingly and voluntarily elects to waive the right to have any inspections performed as a contingency to the Closing of this transaction. Buyer's election to waive the right of inspection is solely Buyer's decision and at Buyer's own risk.

Buyer Initials ____ Date 8/30/19

DS
Seller Initials SM Date 10/2/2019

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Sale Agreement # PC93015

17. LEAD-BASED PAINT CONTINGENCY PERIOD: If the Property consists of or includes any type of residential housing, including single, multi-family or public housing, which Buyer (or Buyer's family) intend(s) to occupy and was constructed before 1978, a Lead-Based Paint Disclosure Addendum (hereinafter "the Disclosure Addendum") shall be promptly signed by Buyer, Seller and Listing and Selling Licensees, and become a part of this Agreement. Buyer shall also be provided with a pamphlet entitled "Protect Your Family From Lead In Your Home." Buyer shall have _____ calendar days (ten [10] unless a greater number is filled in) within which to conduct a lead-based paint assessment or inspection (hereinafter referred to as "the Lead-Based Paint Contingency Period"), which shall commence immediately when Buyer and Seller sign the Disclosure Addendum. Unless the opportunity to conduct a risk assessment or inspection is expressly waived in the Disclosure Addendum, Buyer may, in writing, unconditionally cancel this transaction during the Lead-Based Paint Contingency Period and receive a prompt return of all earnest money deposits. Buyer understands that the failure to give timely written notice of cancellation prior to Midnight on the last day of the Lead-Based Paint Contingency Period shall constitute acceptance of the condition of the Property as it relates to the presence of lead-based paint or lead-based paint hazards.

☐ **OREF-021 Lead-Based Paint Disclosure Addendum is attached to this Agreement.**

18. ESCROW: This transaction shall be Closed at Ticor Title with Kim Ayres ("Escrow"), a neutral escrow located in the State of Oregon. Costs of Escrow shall be shared equally between Buyer and Seller, unless otherwise provided herein. Unless otherwise provided herein, the parties agree as follows: Seller authorizes Listing Firm to order a preliminary title report and owner's title policy at Seller's expense and further authorizes Escrow to pay out of the cash proceeds of sale the expense of furnishing such policy, Seller's recording fees, Seller's Closing costs and any encumbrances on the Property payable by Seller on or before Closing. Buyer shall deposit with Escrow sufficient funds necessary to pay Buyer's recording fees, Buyer's Closing costs, and lender's fees, if any. Real estate fees, commissions or other compensation for professional real estate services provided by Listing and/or Selling Firms shall be paid at Closing in accordance with the listing agreement, buyer service agreement or other written agreement for compensation.

19. ESCROW DEPOSIT: Escrow is hereby instructed by Buyer and Seller as follows: (1) Upon your receipt of a copy of this Agreement marked "rejected" by Seller or upon Listing Firm's written advice that the offer is "rejected" by Seller, you are to refund all earnest money to Buyer. (2) Upon your receipt of a copy of this Agreement signed by Buyer and Seller set up an escrow account and proceed with Closing in accordance with the terms of this Agreement. If you determine that the transaction cannot be Closed for any reason (whether or not there is then a dispute between Buyer and Seller) subject only to Section 36 below, you are to hold all earnest money deposits until you receive written instructions from Buyer and Seller, or a final ruling from a court or arbitrator, as to disposition of such deposits.

20. CLOSING: Closing shall occur on a date mutually agreed upon by Buyer and Seller, but in no event later than: 10/30/2015 ("the Closing Deadline"). The terms "Closed", "Closing" or "Closing Date" shall mean when the deed or contract is recorded and funds are available to Seller. Buyer and Seller acknowledge that for Closing to occur by the Closing Deadline, it may be necessary to execute documents and deposit funds in Escrow prior to that date. *Caveat: Section 10 above requires three (3) days prior to the Closing Deadline if Escrow is to prepare a note and a deed of trust or mortgage.*

21. POSSESSION: Seller shall remove all personal property (including trash and debris) that is not a part of this transaction, and deliver possession of the Property to Buyer *(select one)*:

(1) ☒ by 5:00 p.m. on Closing;
(2) ☐ by _____ ☐ a.m. ☐ p.m. _____ days after Closing;
(3) ☐ by _____ ☐ a.m. ☐ p.m. on the _____ day of _____, _____.

If a tenant is currently in possession of the Property *(check one)*: ☐ Buyer will accept tenant at Closing; ☐ Seller shall have full responsibility for removal of tenant prior to Closing.

22. PRORATIONS: Prorates for rents, current year's real and personal property taxes, interest on assumed obligations, and other prepaid expenses attributable to the Property shall be prorated as of *(check one)*: ☒ the Closing Date; ☐ date Buyer is entitled to possession; or:

☐ _____

23. UTILITIES: Seller shall pay all utility bills accrued to date Buyer is entitled to possession. Buyer shall pay Seller for heating fuel then on premises, at Seller's supplier's rate on the possession date. Payment shall be handled between Buyer and Seller outside of Escrow.

24. BINDING EFFECT/ASSIGNMENT: Subject to the following sentence, this Agreement is binding upon the heirs, personal representatives, successors and assigns of Buyer and Seller. Buyer's interest in this Agreement or in the Property *(check one)*: ☒ are assignable without prior written consent of Seller; ☐ are not assignable without prior written consent of Seller; ☐ are assignable only to an affiliated entity owned or controlled by Buyer without prior written consent of Seller.

25.1 SELLER ADVISORY: OREGON STATE TAX WITHHOLDING OBLIGATIONS. Subject to certain exceptions, Escrow is required to withhold a portion of Seller's proceeds if they are a non-resident individual or corporation as defined under Oregon law. Buyer and Seller agree to execute and deliver, as appropriate, any instrument, affidavit or statement, and to perform any acts reasonable or necessary to carry out the provisions of Oregon law.

Buyer Initials KCI Date 9/30/15

Seller Initials DS SM Date 10/2/2015

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Sale Agreement # EC93015

25.2 SELLER/BUYER ADVISORY: FIRPTA TAX WITHHOLDING OBLIGATIONS. Seller is advised that upon Closing, Federal law, known as the Foreign Investment in Real Property Tax Act ("FIRPTA"), allows an escrow company, if they agree, to withhold a portion of Seller's proceeds if the real property is located within the United States and Seller is a "foreign person." A "foreign person" includes a non-resident alien individual, foreign corporation, foreign partnership, foreign trust and foreign estate. The amount deducted from Seller's proceeds is ten percent (10%) of the gross sales price and is required to be delivered over to the Internal Revenue Service ("IRS") within twenty (20) days of the closing of the transaction. Buyer may become responsible for payment if FIRPTA applies and Escrow is not instructed to withhold the funds. FIRPTA will not apply to this transaction so long as: (a) The sale price is $300,000 or less; (b) The Property is to be used by Buyer as a residence; and, (c) Buyer is an individual. Where applicable, Buyer and Seller agree to execute and deliver, as appropriate, any instrument, affidavit or statement, reasonably requested by Escrow to carry out the provisions of FIRPTA. NOTE: AT SECTION 14 OF THIS AGREEMENT, SELLER REPRESENTS THAT SELLER IS NOT A "FOREIGN PERSON" (HEREINAFTER "SELLER'S NON-FIRPTA STATUS"). IF SELLER IS UNSURE, SELLER SHOULD FIRST CONFER WITH SELLER'S TAX COUNSEL OR CPA BEFORE ENTERING INTO THIS TRANSACTION. IN SUBMITTING THIS OFFER, BUYER REPRESENTS THAT BUYER HAS NO KNOWLEDGE, INFORMATION OR BELIEF THAT SELLER IS A FOREIGN PERSON OR THAT THIS TRANSACTION IS SUBJECT TO FIRPTA. SELLER ACKNOWLEDGES THAT BUYER, LISTING AND SELLING LICENSEES, THEIR RESPECTIVE FIRMS, AND ESCROW, ITS AGENTS, EMPLOYEES AND REPRESENTATIVES, SHALL HAVE THE ABSOLUTE RIGHT TO RELY UPON SELLER'S REPRESENTATION OF SELLER'S NON-FIRPTA STATUS AT SECTION 14, ABOVE. THIS RIGHT OF RELIANCE SHALL CONTINUE THROUGH THE CLOSING DATE AND THEREAFTER, UNLESS SELLER HAS DISCLOSED OTHERWISE IN A WRITTEN COUNTER-OFFER OR ADDENDUM TO THIS SALE AGREEMENT. IF, AT ANY TIME DURING THIS TRANSACTION, IT IS DETERMINED THAT SELLER'S REPRESENTATION OF SELLER'S NON-FIRPTA STATUS WAS INCORRECT, FOR ANY REASON, SELLER AND BUYER HEREBY APPOINT AND INSTRUCT ESCROW TO ACT AS THE QUALIFIED SUBSTITUTE FOR BUYER AS DEFINED BY THE IRS, FOR PURPOSES OF PREPARING THE NECESSARY PAPERWORK, WITHHOLDING THE NECESSARY FUNDS, AND REMITTING THE SAME TO THE IRS. IF, FOR ANY REASON, ESCROW DECLINES TO ACT AS A QUALIFIED SUBSTITUTE, ESCROW IS REQUESTED TO PROMPTLY NOTIFY SELLER AND BUYER IN A TIMELY MANNER SO THEY MAY MAKE OTHER ARRANGEMENTS PRIOR TO THE SCHEDULED CLOSING. SELLER AND BUYER ACKNOWLEDGE THAT IF FIRPTA APPLIES TO THIS TRANSACTION, ESCROW'S ROLE AS A QUALIFIED SUBSTITUTE MAY RESULT IN A DELAY IN CLOSING THIS TRANSACTION. UNLESS OTHERWISE PROVIDED IN THIS SALE AGREEMENT OR ANY SUBSEQUENT SIGNED WRITTEN AGREEMENT BETWEEN SELLER AND BUYER, CONFIRMATION OF SELLER'S NON-FIRPTA STATUS IS NOT A CONTINGENCY IN THIS TRANSACTION.

26. APPROVED USES: "THE PROPERTY DESCRIBED IN THIS INSTRUMENT MAY NOT BE WITHIN A FIRE PROTECTION DISTRICT PROTECTING STRUCTURES. THE PROPERTY IS SUBJECT TO LAND USE LAWS AND REGULATIONS THAT, IN FARM OR FOREST ZONES, MAY NOT AUTHORIZE CONSTRUCTION OR SITING OF A RESIDENCE AND THAT LIMIT LAWSUITS AGAINST FARMING OR FOREST PRACTICES, AS DEFINED IN ORS 30.930, IN ALL ZONES. BEFORE SIGNING OR ACCEPTING THIS INSTRUMENT, THE PERSON TRANSFERRING FEE TITLE SHOULD INQUIRE ABOUT THE PERSON'S RIGHTS, IF ANY, UNDER ORS 195.300, 195.301 AND 195.305 TO 195.336 AND SECTIONS 5 TO 11, CHAPTER 424, OREGON LAWS 2007, SECTIONS 2 TO 9 AND 17, CHAPTER 855, OREGON LAWS 2009, AND SECTIONS 2 TO 7, CHAPTER 8, OREGON LAWS 2010. BEFORE SIGNING OR ACCEPTING THIS INSTRUMENT, THE PERSON ACQUIRING FEE TITLE TO THE PROPERTY SHOULD CHECK WITH THE APPROPRIATE CITY OR COUNTY PLANNING DEPARTMENT TO VERIFY THAT THE UNIT OF LAND BEING TRANSFERRED IS A LAWFULLY ESTABLISHED LOT OR PARCEL, AS DEFINED IN ORS 92.010 OR 215.010, TO VERIFY THE APPROVED USES OF THE LOT OR PARCEL, TO VERIFY THE EXISTENCE OF FIRE PROTECTION FOR STRUCTURES AND TO INQUIRE ABOUT THE RIGHTS OF NEIGHBORING PROPERTY OWNERS, IF ANY, UNDER ORS 195.300, 195.301 AND 195.305 TO 195.336 AND SECTIONS 5 TO 11, CHAPTER 424, OREGON LAWS 2007, SECTIONS 2 TO 9 AND 17, CHAPTER 855, OREGON LAWS 2009, AND SECTIONS 2 TO 7, CHAPTER 8, OREGON LAWS 2010."

27. IRC 1031 EXCHANGE: In the event Buyer or Seller elects to complete an IRC 1031 exchange in this transaction, the other party agrees to cooperate with them, and the accommodator, if any, in a manner necessary to complete the exchange, so long as it will not delay the Close of escrow or cause additional expense or liability to the cooperating party. Unless otherwise provided herein, this provision shall not become a contingency to the Closing of this transaction.

28.1 LEVY OF ADDITIONAL PROPERTY TAXES: The Property *(check one)*: ☐ is, ☒ is not specially assessed for property taxes (e.g., farm, forest, tax abatement or other) in a way which may result in levy of additional taxes in the future. If it is specially assessed, Seller represents that the Property is current as to income or other conditions required to preserve its deferred/abated tax status. If, as a result of Buyer's actions or the Closing of this transaction, the Property either is disqualified from special use assessment or loses its deferred/abated property tax status, unless otherwise specifically provided in this Agreement, Buyer shall be responsible for and shall pay when due, any deferred and/or additional taxes and interest which may be levied against the Property and shall hold Seller completely harmless therefrom. However, if as a result of Seller's actions prior to Closing, the Property either is disqualified from its entitlement to special use assessment or loses its deferred/abated property tax status, Buyer may, at Buyer's sole option, promptly terminate this transaction and receive a refund of all deposits paid by Buyer in anticipation of Closing; or Close this transaction and hold Seller responsible to pay into Escrow all deferred and/or additional taxes and interest which may be levied or recaptured against the Property and hold Buyer completely harmless therefrom. The preceding shall not be construed to limit Buyer's or Seller's available remedies or damages arising from a breach of this Section 28.1.

28.2 HISTORIC PROPERTY DESIGNATION: If the Property is or may be subject to a historic Property local ordinance or is subject to or may qualify for the Historic Property Special Property Tax Assessment under ORS 358.475 to 358.565, Seller shall provide **OREF-045 Historic Property Addendum.**

Buyer Initials VE / Date 9/30/15

Seller Initials SM DS / Date 10/2/2015

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Sale Agreement # PC93015

DISPUTE RESOLUTION INVOLVING BUYER AND SELLER ONLY

29. DISPUTE RESOLUTION: Any dispute between Buyer and Seller relating to the interpretation or enforcement of this Agreement *(check one)* ☐ shall ☐ shall not, be subject to the arbitration provisions of Section 32. Failure to check a box in this Section 29 shall constitute an election NOT to arbitrate. Buyer and Seller agree that all claims, controversies and disputes between them, including those for rescission (hereinafter collectively referred to as "Claims"), relating directly or indirectly to this transaction, shall be resolved in accordance with the procedures set forth herein, which shall expressly survive Closing or earlier termination of this Agreement. Provided, however, the following matters shall not constitute Claims: (1) any proceeding to collect, interpret or enforce any mortgage, trust deed, land sale contract or recorded construction lien or (2) a forcible entry and detainer action (eviction). The filing in court for the issuance of any provisional process or similar remedy described in the Oregon or Federal Rules of Civil Procedure shall not constitute a waiver of the right or duty to utilize the dispute resolution procedures specified herein. In the event of any suit, action or arbitration relating to the enforcement or interpretation of this Agreement, the matter shall be governed exclusively by Oregon law, and venue shall be placed in the State of Oregon for all purposes.

30. SMALL CLAIMS BETWEEN BUYER AND SELLER: Notwithstanding the following Sections, Buyer and Seller agree that all Claims that are within the jurisdiction of the Small Claims Court shall be brought and decided there, in lieu of mediation, arbitration or litigation in any other forum.

31. MEDIATION BETWEEN BUYER AND SELLER: If Buyer or Seller were represented in this transaction by a Licensee whose principal broker is a member of the National Association of REALTORS®, all Claims shall be submitted to mediation in accordance with the procedures of the Home Seller/Home Buyer Dispute Resolution System of the National Association of REALTORS® or other organization-adopted mediation program (collectively "the System"). Provided, however, if Licensee's principal broker is not a member of the National Association of REALTORS®, or the System is not available through the principal broker's Association of REALTORS®, then all Claims shall be submitted to mediation either through: (1) the special mediation program administered by Arbitration Service of Portland ("ASP"), or (2) any other impartial private mediator(s) or program(s), so long as such services are available in the county where the Property is located, as selected by the party first filing for mediation.

32. ARBITRATION BETWEEN BUYER AND SELLER: All Claims between Buyer and Seller that have not been resolved by mediation, or otherwise, shall be submitted to final and binding private arbitration in accordance with Oregon laws. Filing for arbitration shall be treated the same as filing in court for purposes of meeting any applicable statutes of limitation, statute of ultimate repose, or for purposes of filing a lis pendens. Buyer or Seller may file Claims either with ASP or, alternatively, with any other professional arbitration service that has existing rules of arbitration, provided that the selected alternative service also uses arbitrators who are in good standing with the Oregon State Bar, with expertise in real estate law, and who can conduct the hearing in the county where the Property is located. The arbitration service in which the Claim is first filed shall handle the case to its conclusion. BY CONSENTING TO THIS PROVISION BUYER AND SELLER ARE AGREEING THAT DISPUTES ARISING UNDER THIS AGREEMENT SHALL BE HEARD AND DECIDED BY ONE OR MORE NEUTRAL ARBITRATORS AND BUYER AND SELLER ARE GIVING UP THE RIGHT TO HAVE THE MATTER TRIED BY A JUDGE OR JURY. THE RIGHT TO APPEAL AN ARBITRATION DECISION IS LIMITED UNDER OREGON LAW.

33. ATTORNEY FEES IN CLAIMS BETWEEN BUYER AND SELLER: The prevailing party in any suit, action or arbitration (excluding those Claims filed in Small Claims Court) shall be entitled to recovery of all reasonable attorney fees and costs and disbursements as defined in ORCP 68 including all filing and mediator fees paid in mediation). Provided, however, if a mediation service was available to the Buyer or Seller when the Claim arose the prevailing party shall not be entitled to any award of attorney fees unless it is established to the satisfaction of the arbitrator(s) or judge that the prevailing party offered or agreed in writing to participate in mediation prior to, or promptly upon, the filing in arbitration or court.

DISPUTE RESOLUTION INVOLVING LICENSEES OR FIRMS

34. SMALL CLAIMS COURT AND ARBITRATION: All claims, controversies or disputes relating to this transaction, including those for rescission, in which a Licensee or Firm identified in the Final Agency Acknowledgment Section above is named or included as a party, shall be resolved exclusively as follows: (1) If within the jurisdictional limit of Small Claims Court, the matter shall be brought and decided there, in lieu of arbitration or litigation in any other forum. The preceding sentence shall be construed to mean that no party shall have a right to request a jury trial and so remove the matter form the Small Claims Department of the Circuit Court under ORS 46.455(3). BY CONSENTING TO THIS PROVISION, BUYER AND SELLER ACKNOWLEDGE THAT THEY ARE GIVING UP THE CONSTITUTIONAL RIGHT TO HAVE THE MATTER TRIED BY A JUDGE OR JURY IN CIRCUIT COURT, AND THAT A JUDGMENT IN SMALL CLAIMS COURT IS FINAL AND BINDING, AND THERE IS NO RIGHT OF APPEAL. (2) All other claims, controversies or disputes involving such Licensee or Firm shall be resolved through final and binding arbitration using the arbitration selection process described in Section 33, above. Filing for arbitration shall be treated the same as filing in court for purposes of meeting any applicable statutes of limitation or for purposes of filing a lis pendens. This Section 34 shall be in lieu of litigation involving such Licensee or Firm in any other forum. Such Licensee or Firm may voluntarily participate in formal or informal mediation at any time; but shall not be required to do so under this Section 34. This Section 34 shall not apply to those matters in which: (a) The claim, controversy or dispute is exclusively between REALTORS® and is otherwise required to be resolved under the Professional Standards Arbitration provisions of the National Association of REALTORS®; (b) Licensee or Firm has agreed to participate in alternative dispute resolution in a prior written listing, service or fee

Buyer Initials EC / ___ Date 9/30/15

Seller Initials SM / ___ Date 10/2/2015

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Sale Agreement #: PC93015

agreement with Buyer or Seller, or (c) Licensee or Firm is Buyer or Seller in this transaction (in which case, Sections 29-33 shall apply). This Section 34 shall expressly survive Closing or earlier termination of this Agreement. In the event of any suit, action or arbitration relating to the enforcement or interpretation of this Agreement, the matter shall be governed exclusively by Oregon law, and venue shall be placed in the State of Oregon for all purposes. In the event that one or more Licensees and/or Firms have been named or included in any claims, controversies or disputes (that also include Buyer and/or Seller, the alternative dispute resolution and attorney fee provisions of Sections 29-33 above, shall continue to apply as between Buyer and/or Seller, and this Section 34 shall apply exclusively to Licensees and/or Firms.

35. **PROPERTY DISCLOSURE LAW:** Buyer and Seller acknowledge that if this transaction is subject to Oregon's Seller Property Disclosure Law, unless otherwise waived in writing, Buyer shall have a right to revoke Buyer's offer within five (5) business days from Seller's delivery of the Seller's Property Disclosure Statement.

36. **COUNTERPARTS/DELIVERY:** This Agreement may be signed in multiple counterparts with the same legal effect as if all parties signed the same document. This shall mean that delivery (e.g., transmissions manually, by facsimile, electronic mail, overnight mail, first-class regular mail, or certified mail, etc.) of a legible true copy of a signed original of this Agreement, including but not limited to all addenda, counter offers, and legal notices required thereunder, shall be treated the same as delivery of the original document.

37. **AGREEMENT TO PURCHASE:** Buyer agrees to purchase the Property upon the terms and conditions set forth in this Agreement. Buyer acknowledges receipt of a completely filled-in copy of this Agreement which Buyer has fully read and understands. Buyer acknowledges that Buyer has not relied upon any oral or written statements, made by Seller or any Licensees, which are not expressly contained in this Agreement. Neither Seller nor any Licensee(s) warrant the square footage of any structure or the size of any land being purchased. If square footage or land size is a material consideration, all structures and land should be measured by Buyer prior to signing, or should be made an express contingency in this Agreement.

Deed or contract shall be prepared in the name of General Property Group LLC

This offer shall automatically expire on *(insert date)* October 1, 2015 at 5:00 ☐ a.m. ☒ p.m. (the "Offer Deadline"), if not accepted by that time.

Buyer may withdraw this offer before the Offer Deadline any time prior to Seller's acceptance. If Seller accepts this offer after the Offer Deadline, it shall not be binding upon Buyer unless accepted by Buyer in writing within ____ business days (five (5) if not filled in) after the date of Seller's acceptance by so indicating at Section 40 below. This offer may be accepted by Seller only in writing.

Buyer Kurt Haase, General Property Group LLC Date 9/30/15, ____ a.m./2:38 p.m.←

Buyer ____ Date ____, ____ a.m. ___ p.m.←

Address ____ Zip ____

Phone Home ____ Work ____ E-mail ____ Fax ____

NO CHANGES OR ALTERATIONS ARE PERMITTED TO ANY PORTION OF THE PRE-PRINTED FORMAT OR TEXT OF THIS FORM. ANY SUCH PROPOSED CHANGES OR ALTERATIONS SHOULD BE MADE ON A SEPARATE DOCUMENT. CHANGES BY SELLER OR LISTING LICENSEE TO THE TERMS OR PROVISIONS ABOVE BUYER'S SIGNATURE SHOULD ALSO BE ON A SEPARATE DOCUMENT.

This offer was submitted to Seller for signature on the 2 day of October, 2015, at 10:07am a.m. ____ p.m.

By Cord Allison (Licensee(s) presenting offer).

38. **AGREEMENT TO SELL / ACKNOWLEDGEMENTS / DISPOSITION OF EARNEST MONEY:** Seller accepts Buyer's offer. Seller acknowledges receipt of a completely filled-in copy of this Agreement, which Seller has fully read and understands. Seller acknowledges that Seller has not relied upon any oral or written statements of Buyer or of any Licensee(s) which are not expressly contained in this Agreement. Seller instructs that all earnest money distributable to Seller pursuant to Section 6 above, shall be disbursed as follows after deduction of any title insurance and Escrow cancellation charges: *(check one)* ☐ First to Listing Firm to the extent of the agreed commission just as if the transaction had been Closed, with residue to Seller, ☐ or ____.

Seller Steven Mcghehey Date ____, ____ a.m. ___ p.m.←

Seller ____ Date ____, ____ a.m. ___ p.m.←

Address ____ Zip ____

Phone Home ____ Work ____ E-mail ____ Fax ____

Buyer Initials KH Date 9/30/15

Seller Initials SM / ____ Date 10/2/2015

DS

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Sale Agreement # PC93015

39. REJECTION/COUNTER OFFER: *SELECT ONE:* ☐ Seller does not accept the above offer, but makes the attached counter offer.
☐ Seller rejects Buyer's offer.
Seller Steven Mcghehey Date ____ ____ a.m. ___ p.m. ←
Steven Mcghehey
Seller ____ Date 10/2/2015 ____ a.m. ___ p.m. ←
Address ____ Zip ____
Phone Home ____ Work ____ E-mail ____ Fax ____

40. BUYER'S ACKNOWLEDGMENT: Buyer acknowledges receipt of a copy of Seller's written response to this Agreement. If Seller's response is an acceptance of Buyer's offer that occurred after the Offer Deadline identified at Section 37 above, Buyer *(select only one)* ☐ agrees ☐ does not agree, to be bound thereby. (The failure to check either box shall constitute rejection of Seller's acceptance after the Offer Deadline.) If Buyer checks the box agreeing to be bound by Seller's acceptance occurring after the Offer Deadline, this Agreement shall become binding on the parties when Buyer's acceptance has been transmitted to Seller or Seller's Licensee.
Buyer K Olson manager Date 10/7/15 16:50 a.m. ___ p.m. ←
General Property Group LLC
Buyer ____ Date ____ ____ a.m. ___ p.m. ←

41. FIRMS/LICENSEES:
Selling Licensee Patricia A. Curtin Selling Firm John L. Scott Real Estate Grants Pass
Selling Firm Office Address 705 NE 7th St. Grants Pass, OR 97526
Phone (541) 476-1299 Phone ____ E-mail ____
Fax (541) 471-6244
Date and Time of Transmission of Acceptance ____
Listing Licensee Jake Rockwell/Cord Allison Listing Firm John L. Scott Medford/Ashland
Listing Firm Office Address ____
Phone ____ Phone ____ E-mail ____
Fax ____

Buyer Initials KO Date 9/30/15
Seller Initials SM DS Date 10/2/2015

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Sale Agreement # PC93015

SELLER'S COUNTER OFFER No. 1

This is a counter offer to ☒ Sale Agreement or ☐ Buyer's Counter Offer
Seller: Steven Mcghehey
Buyer: General Property Group LLC
The real property described as: 702 S. Grape St, Medford, OR 97501

AGREEMENT TO SELL:
Seller agrees to sell the real and personal property upon the terms and conditions set forth in the Sale Agreement and subsequent counter offers where applicable, except as modified as follows: Buyer and seller agree that sales price to be $160,000.00. Seller is aware of the following issues: Line 238: There are hazardous substances. Line 299: There are structural defects. Seller to have 5 business days to obtain First Lien Holders' approval for payoff of recorded First Trust Deed. For additional provisions, see Addendum A

All remaining terms and conditions of the Sale Agreement (and other counter offer(s), where applicable), not otherwise modified, are approved and accepted by Seller. Time is of the essence. This Seller's Counter Offer shall automatically expire on October 3, 2015 at 5:00 ☐ a.m. ☒ p.m. ("the Counter Offer Deadline"), if not accepted within that time. If Buyer accepts this Seller's Counter Offer after the Counter Offer Deadline, it shall not be binding upon Seller unless agreed to by Seller in writing within _____ business days (two [2] if not filled in) thereafter by so indicating at the Seller's Acknowledgement Section below. This Seller's Counter Offer may be accepted by Buyer only in writing. However, Seller may withdraw this counter offer any time prior to Buyer's written acceptance.

Seller acknowledges receipt of a completely filled in copy of Buyer's Offer and Seller's Counter Offer, and all subsequent counter offers where applicable, which Seller has fully read and understands. Seller acknowledges that Seller has not relied on any oral or written statements of any Buyer or of any Licensee(s) which are not expressly contained in the Sale Agreement as amended. Seller instructs that all earnest money distributable to Seller pursuant to the Sale Agreement shall be disbursed as follows after deduction of any title insurance and Escrow cancellation charges: *(check one)* ☐ First to Listing Firm, to the extent of the agreed commission just as if the transaction had been consummated, with residue to Seller; or ☐ _____

Seller Signature DocuSigned by: Steven Mcghehey 10/2/2015 _____ a.m. ____ p.m.
Seller Signature _____ Date _____ _____ a.m. ____ p.m.

BUYER'S RESPONSE (*select only one*):
☐ Buyer accepts Seller's Counter Offer.
☒ Buyer does not accept Seller's Counter Offer AND submits the attached Buyer's Counter Offer.
☐ Buyer rejects Seller's Counter Offer.

Buyer acknowledges receipt of signed copies of the Sale Agreement and all subsequent counter offers including this Seller's Counter Offer, where applicable, which Buyer has fully read and understands.

Buyer Signature K. Gilt manager General Property Group LLC Date 10/7/15 10:57 a.m. ____ p.m.
Buyer Signature _____ Date _____ _____ a.m. ____ p.m.

SELLER'S ACKNOWLEDGMENT:
Seller acknowledges receipt of copies of the Sale Agreement and all subsequent counter offers, including this Seller's Counter Offer, which Seller has fully read and understands. If Buyer's response to Seller's Counter Offer is an acceptance that has occurred after the Counter Offer Deadline identified in the Agreement to Sell Section above, Seller *(select only one)* ☐ agrees ☐ does not agree, to be bound thereby. (The failure to check either box shall constitute a rejection by Seller of Buyer's late acceptance of Seller's Counter Offer after said Deadline.) If Seller checks the box agreeing to be bound by Buyer's late acceptance occurring after the Counter Offer Deadline, the Sale Agreement shall become binding on all parties only when Seller(s) has/have signed below and this Counter Offer is transmitted to Buyer or Buyer's Licensee.

Seller Signature DocuSigned by: Steve Mcghehey 10/8/2015 _____ a.m. ____ p.m.
Seller Signature _____ Date _____ _____ a.m. ____ p.m.

Enter Date, Time, and Method of Transmission of Seller's Acceptance: _____;
By _____

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Sale Agreement # PC93015

47 **RECEIPT OF EARNEST MONEY**
48 *(Use only if amount of earnest money is modified)*.
49 Selling Firm acknowledges receipt of earnest money from Buyer NOT previously receipted for in the sum of $ _____ evidenced ☐ by cash,
50 ☐ check, ☐ promissory note payable on or before _____ ; which Selling Firm agrees to handle as provided in the Agreement.
51 Selling Licensee's signature _____
52 Selling Licensee Patricia Curtin Listing Licensee Jake Rockwell

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Sale Agreement # PC93015

SELLER'S COUNTER OFFER No. #2

This is a counter offer to ☒ Sale Agreement or ☐ Buyer's Counter Offer

Seller: Steven Mcghehey

Buyer: General Property Group LLC

The real property described as: 702 S. Grape St, Medford, OR 97501

AGREEMENT TO SELL:

Seller agrees to sell the real and personal property upon the terms and conditions set forth in the Sale Agreement and subsequent counter offers where applicable, except as modified as follows: Buyer and seller agree that sales price will be $145,000.00. All other terms to remain the same.

For additional provisions, see Addendum

All remaining terms and conditions of the Sale Agreement (and other counter offer(s), where applicable), not otherwise modified, are approved and accepted by Seller. Time is of the essence. This Seller's Counter Offer shall automatically expire on October 9, 2015 at 5 ☐ a.m. ☒ p.m. ("the Counter Offer Deadline"), if not accepted within that time. If Buyer accepts this Seller's Counter Offer after the Counter Offer Deadline, it shall not be binding upon Seller unless agreed to by Seller in writing within _____ business days (two [2] if not filled in) thereafter by so indicating at the Seller's Acknowledgement Section below. This Seller's Counter Offer may be accepted by Buyer only in writing. However, Seller may withdrew this counter offer any time prior to Buyer's written acceptance.

Seller acknowledges receipt of a completely filled in copy of Buyer's Offer and Seller's Counter Offer, and all subsequent counter offers where applicable, which Seller has fully read and understands. Seller acknowledges that Seller has not relied on any oral or written statements of any Buyer or of any Licensee(s) which are not expressly contained in the Sale Agreement as amended. Seller instructs that all earnest money distributable to Seller pursuant to the Sale Agreement shall be disbursed as follows after deduction of any title insurance and Escrow cancellation charges: (check one) ☐ First to Listing Firm, to the extent of the agreed commission just as if the transaction had been consummated, with residue to Seller; or ☐ .

Seller Signature: Steven Mcghehey (DocuSigned by: Steven Mcghehey, 012E0B1E32E144A...) Date: 10/8/2015 _____ a.m. ____ p.m.←

Seller Signature: _____ Date: _____ a.m. ____ p.m.←

BUYER'S RESPONSE (*select only one*):

☒ Buyer accepts Seller's Counter Offer.
☐ Buyer does not accept Seller's Counter Offer AND submits the attached Buyer's Counter Offer.
☐ Buyer rejects Seller's Counter Offer.

Buyer acknowledges receipt of signed copies of the Sale Agreement and all subsequent counter offers including this Seller's Counter Offer, where applicable, which Buyer has fully read and understands.

Buyer Signature: K-Nut manager (General Property Group LLC) Date: 10/9/15 _____ a.m. 4:00 p.m.←

Buyer Signature: _____ Date: _____ a.m. ____ p.m.←

SELLER'S ACKNOWLEDGMENT:

Seller acknowledges receipt of copies of the Sale Agreement and all subsequent counter offers, including this Seller's Counter Offer, which Seller has fully read and understands. If Buyer's response to Seller's Counter Offer is an acceptance that has occurred after the Counter Offer Deadline identified in the Agreement to Sell Section above, Seller *(select only one)* ☐ agrees ☐ does not agree, to be bound thereby. (The failure to check either box shall constitute a rejection by Seller of Buyer's late acceptance of Seller's Counter Offer after said Deadline.) If Seller checks the box agreeing to be bound by Buyer's late acceptance occurring after the Counter Offer Deadline, the Sale Agreement shall become binding on all parties only when Seller(s) has/have signed below and this Counter Offer is transmitted to Buyer or Buyer's Licensee.

Seller Signature: _____ (Steven Mcghehey) Date: _____ a.m. ____ p.m.←

Seller Signature: _____ Date: _____ a.m. ____ p.m.←

Enter Date, Time, and Method of Transmission of Seller's Acceptance: _____ ;

By _____

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Sale Agreement # PC93015

47 RECEIPT OF EARNEST MONEY.
48 *(Use only if amount of earnest money is modified):*
49 Selling Firm acknowledges receipt of earnest money from Buyer NOT previously receipted for in the sum of $ _____ evidenced ☐ by cash,
50 ☐ check, ☐ promissory note payable on or before _____, which Selling Firm agrees to handle as provided in the Agreement.
51 Selling Licensee's signature _____
52 Selling Licensee Patricia Curtin Listing Licensee Jake Rockwell

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ADDENDUM TO REAL ESTATE SALE AGREEMENT

This is an Addendum to: ☒ Real Estate Sale Agreement ☐ Seller's Counter Offer ☐ Buyer's Counter Offer

Re: Real Estate Sale Agreement No. PC93015 Dated October 2, 2015 Addendum No. A

Buyer: General Property Group LLC

Seller: Steven Mcchahey

The real property described as: 702 S. Grape St, Medford, OR 97501

SELLER AND BUYER HEREBY AGREE THE FOLLOWING SHALL BE A PART OF THE REAL ESTATE SALE AGREEMENT REFERENCED ABOVE.

Line 248: Building and business is uninsured because it is not in operation. All parties agree to extend response time on offer (PC93015).

Buyer Signature General Property Group LLC Date ____, ____ a.m. ____ p.m. ←

Buyer Signature ____ Date ____, ____ a.m. ____ p.m. ←

Seller Signature DocuSigned by: Steven Mcchahey Steven Mcchahey Date 10/2/2015, ____ a.m. ____ p.m. ←

Seller Signature ____ Date ____, ____ a.m. ____ p.m. ←

Selling Licensee Patricia Curtin Listing Licensee Jake Rockwell

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Sale Agreement # PC93015

BUYER'S COUNTER OFFER No. 1

This is a counter offer to Seller's Counter Offer.
Buyer: General Property Group LLC.
Seller: Steven Maghehey
The real property described as: 702 S Grape St, Medford, OR 97501

AGREEMENT TO PURCHASE:
Buyer agrees to purchase the real and personal property upon the terms and conditions set forth in the Sale Agreement and subsequent counter offers where applicable except as modified as follows: Sale Price to be $140,000.00

For additional provisions, see Addendum ____

All remaining terms and conditions of the Sale Agreement (and other counter offer(s), where applicable), not otherwise modified, are approved and accepted by Buyer. Time is of the essence. This Buyer's Counter Offer shall automatically expire on October 8, 2015 at 5:00 ☐ a.m. ☒ p.m. ("the Counter Offer Deadline"). If not accepted within that time, if Seller accepts Buyer's Counter Offer after the Counter Offer Deadline, it shall not be binding upon Buyer unless agreed to by Buyer in writing within ____ business days (two [2] if not filled in) thereafter by so indicating at the Buyer's Acknowledgement Section below. This Buyer's Counter Offer may be accepted by Seller only in writing. However, Buyer may withdraw this Buyer's Counter Offer any time prior to Seller's written acceptance.

Buyer Signature: K. Nate Manager C (General Property Group LLC) Date 10/7/15, 10:30 a.m. ___ p.m.

Buyer Signature: _____ Date _____, _____ a.m. ___ p.m.

SELLER'S RESPONSE *(select only one)*:
☐ Seller accepts Buyer's Counter Offer.
☒ Seller does not accept Buyer's Counter Offer AND submits the attached Seller's Counter Offer
☐ Seller rejects Buyer's Counter Offer.

Seller acknowledges receipt of signed copies of the Sale Agreement and all subsequent counter offers, including this Buyer's Counter Offer, which Seller has read and fully understands. Seller instructs that all earnest money distributable to Seller pursuant to the Sale Agreement shall be disbursed as follows after deduction of any title insurance and Escrow cancellation charges: *(check one)* ☐. First to Listing Firm, to the extent of the agreed commission just as if the transaction had been consummated, with residue to Seller; or ☐ _____.

Seller Signature: Steve Maghehey (Steven Maghehey 0120091E92E144A...) Date 10/8/2015, _____ a.m. ___ p.m.

Seller Signature: _____ Date _____, _____ a.m. ___ p.m.

BUYER'S ACKNOWLEDGMENT:
Buyer acknowledges that Buyer has not relied on any oral or written statements of Seller or of any Licensee(s) which are not expressly contained in the Sale Agreement as amended. Buyer acknowledges receipt of copies of the Sale Agreement and all subsequent counter offers, including this Buyer's Counter Offer, which Buyer has fully read and understands. If Seller's response to Buyer's Counter Offer is an acceptance of Buyer's counter offer that has occurred after the Counter Offer Deadline identified in the Agreement to Purchase Section above, Buyer *(select only one)* ☐ agrees ☐ does not agree, to be bound thereby. (The failure to check either box shall constitute a rejection by Buyer of Seller's late acceptance of Buyer's Counter Offer after said Deadline.) If Buyer checks the box agreeing to be bound by Seller's late acceptance occurring after the Counter Offer Deadline, the Sale Agreement shall become binding on all parties only when Buyer(s) has/have signed below and this Counter Offer is transmitted to Seller or Seller's Licensee.

Buyer Signature: K. Nate Manager C (General Property Group LLC) Date 10/9/15, _____ a.m. 11:00 p.m.

Buyer Signature: _____ Date _____, _____ a.m. ___ p.m.

Enter Date, Time, and Method of Transmission of Buyer's Acceptance: _____

By: _____

RECEIPT OF EARNEST MONEY
(Use only if amount of earnest money is modified.)
Selling Firm acknowledges receipt of earnest money from Buyer NOT previously receipted for in the sum of $_____ evidenced by ☐ cash, ☐ check, ☐ promissory note payable on or before _____, which Selling Firm agrees to handle as provided in the Sale Agreement.

Selling Licensee's signature _____

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Sale Agreement # PC93015

49. Selling Licensee Patricia A. Curtin Listing Licensee Jake Rockwell/Cord Allison

50. Selling Firm Broker's Initials/Date _____/_____ Listing Firm Broker's Initials/Date _____/_____

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Sale Agreement # PC93015

PROMISSORY NOTE FOR EARNEST MONEY

Buyer(s) General Property Group LLC
Seller(s) Steven Mcghehey
Property Address 702 S Grape St, Medford, OR 97501

Buyer(s): General Property Group LLC
jointly and severally promise to pay to *(select only one payee)*:

☐ Real Estate Firm: _____

☒ Seller(s): Steven Mcghehey

the sum of $ 500.00

1) Upon redemption of this promissory note, funds shall be made payable to *(select only one)*:

☐ Real Estate Firm Trust Account: _____

☐ Seller(s): _____

☒ Escrow / Title Company: Ticor Title with Kim Ayres

2) This Note is due and payable *(select only one due date)*:

☒ 5 ☒ business ☐ calendar *(Select one)* days after mutual acceptance of the Real Estate Sale Agreement;

☐ on or before _____

3) If this Note is not paid when due, Buyer(s) shall pay interest at the rate of ten percent (10%) per annum on the unpaid balance from the due date until it is paid in full. **BUYER(S) UNDERSTAND(S) THAT TIME IS OF THE ESSENCE, AND THAT THE FAILURE TO PAY THIS NOTE WHEN DUE, MAY CONSTITUTE A DEFAULT UNDER THE REAL ESTATE SALE AGREEMENT WITH SELLER.**

4) If Real Estate Firm is named as the payee of this Note, and Note is not paid when due, Buyer(s) hereby consent(s) to Real Estate Firm assigning and transferring it to Seller(s) for all purposes including collection.

5) This Note is hereby incorporated into and made a part of the Real Estate Sale Agreement between Seller(s) and Buyer(s). In the event of any dispute between said parties, the mediation, arbitration and attorney fee provisions therein shall expressly apply.

6) If payment is not made on or before the due date, Buyer(s) understand that Principal Broker is instructed by Seller(s) to promptly assign and transfer this Note to Seller(s), without recourse, and for all purposes, including collection. It is expressly understood and agreed that neither Principal Broker nor Principal Broker's Firm, its owners, officers or directors, licensees, employees or representatives shall have any duty (fiduciary or otherwise), responsibility or liability to Seller(s) to enforce collection of the Note, nor for any fees or costs associated therewith.

Buyer K. Curtis manager General Property Group LLC Date 9/30/15 ← Seller Steven Mcghehey DocuSigned by: Steven Mcghehey 012BD81E32E144A... Date 10/2/2015 ←

Buyer _____ Date _____ ← Seller _____ Date _____ ←

Selling Licensee Patricia A. Curtin Listing Licensee Jake Rockwell/Cord Allison

Selling Firm John L. Scott Real Estate Grants Pass Listing Firm John L. Scott Medford/Ashland

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OREF 060

ELWORTH Susan

From: LOBATO Dan
Sent: Wednesday, September 21, 2016 8:37 AM
To: ELWORTH Susan
Subject: 702 S. Grape Street Submittals
Attachments: MedfordPlatingAnalytical.pdf

Dan Lobato
Compliance Specialist
Western Region Hazardous Waste Program
165 East 7th Ave., Suite 100, Eugene, OR 97401
541-686-7998 (direct line)
541-686-7551 (fax)
lobato.dan@deq.state.or.us



NEILSON RESEARCH CORPORATION
Environmental Testing Laboratory

8/25/2016

Scott Pieper
SMAF Environmental
PO Box 672
Prineville, OR 97754
TEL: (541) 233-7830
FAX (541) 447-2190

RE: 16-0809 Medford Metals

Order No.: 1608511

Dear Scott Pieper:

Neilson Research Corporation received 13 sample(s) on 8/9/2016 for the analyses presented in the following report.

The results relate only to the parameters tested or to the sample as received by the laboratory. This report shall not be reproduced except in full, without the written approval of Neilson Research Corporation. If you have any questions regarding these test results, please feel free to call.

Sincerely,
Neilson Research Corporation

Alec C Smith
Project Manager

Neilson Research Corporation
245 South Grape Street, Medford, Oregon 97501 541-770-5678 Fax 541-770-2901

Analysis Report

ORELAP 100016
EPA OR00028

CLIENT: SMAF Environmental
Project: 16-0809 Medford Metals
Lab Order: 1608511

Date: 25-Aug-16

CASE NARRATIVE

The analyses were performed according to the guidelines in the Neilson Research Corporation Quality Assurance Program. This report contains analytical results for the sample(s) as received by the laboratory.

Neilson Research Corporation certifies that this report is in compliance with the requirements of NELAP. No unusual difficulties were experienced during analysis of this batch except as noted below or qualified with data flags on the reports.

Neilson Research Corporation

245 South Grape Street, Medford, Oregon 97501 541-770-5678 Fax 541-770-2901

Analysis Report

ORELAP 100016
EPA OR00028

SMAF Environmental
PO Box 672
Prineville, OR 97754
Client Sample ID: **Tank-2**
Sample Location: **Grab**
Project: **16-0809 Medford Metals**

Lab Order: **1608511**
NRC Sample ID **1608511-01**
Collection Date: **8/9/2016 12:50:00 PM**
Received Date: **8/9/2016 3:27:00 PM**
Reported Date: **8/25/2016 4:26:55 PM**
Matrix: **Aqueous**

ANALYTICAL RESULTS

Analyses	NELAP Accredited	Result	Qual	MRL	Units	Dilution Factor	Date Analyzed
Ion Chromatography by EPA9056							*Analyst: JKT*
Fluoride	A	**0.217**		0.2	%	10000	8/16/2016
Trace Metals by EPA 7470A							*Analyst: BAR*
Mercury	A	**ND**	ER	0.002	mg/L	1	8/15/2016
Trace Metals ICP by EPA 6010B							*Analyst: BAR*
Arsenic	A	**49.4**		25	mg/L	20	8/23/2016
Barium	A	**ND**	ER	50	mg/L	20	8/23/2016
Cadmium	A	**23.5**		0.5	mg/L	20	8/23/2016
Chromium	A	**166000**		50	mg/L	400	8/23/2016
Lead	A	**ND**	ER	25	mg/L	20	8/23/2016
Selenium	A	**ND**	ER	25	mg/L	20	8/23/2016
Silver	A	**7.30**		0.5	mg/L	20	8/23/2016
Cyanide, Total by EPA 335.4							*Analyst: JKT*
Cyanide	A	**ND**	ER	0.15	mg/L	1	8/22/2016
pH by EPA 9040							*Analyst: JKT*
pH	A	**0.36**		0.1	pH Units	1	8/9/2016 6:45:00 PM

Qualifiers:

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
* - Value exceeds Maximum Contaminant Level
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
MRL - Minimum Reporting Limit

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Analysis Report

ORELAP 100016
EPA OR00028

SMAF Environmental
PO Box 672
Prineville, OR 97754
Client Sample ID: **Tank-3**
Sample Location: **Grab**
Project: **16-0809 Medford Metals**

Lab Order: **1608511**
NRC Sample ID **1608511-02**
Collection Date: **8/9/2016 1:00:00 PM**
Received Date: **8/9/2016 3:27:00 PM**
Reported Date: **8/25/2016 4:26:55 PM**
Matrix: **Aqueous**

ANALYTICAL RESULTS

Analyses	NELAP Accredited	Result	Qual	MRL	Units	Dilution Factor	Date Analyzed
Ion Chromatography by EPA9056							*Analyst: JKT*
Fluoride	A	**0.00528**		0.002	%	100	8/16/2016
Trace Metals by EPA 7470A							*Analyst: BAR*
Mercury	A	**ND**	ER	0.002	mg/L	1	8/15/2016
Trace Metals ICP by EPA 6010B							*Analyst: BAR*
Arsenic	A	**ND**	ER	10	mg/L	20	8/18/2016
Barium	A	**ND**	ER	20	mg/L	20	8/18/2016
Cadmium	A	**ND**	ER	0.2	mg/L	20	8/18/2016
Chromium	A	**11.7**		1	mg/L	20	8/18/2016
Lead	A	**ND**	ER	10	mg/L	20	8/18/2016
Selenium	A	**ND**	ER	10	mg/L	20	8/18/2016
Silver	A	**ND**	ER	0.2	mg/L	20	8/18/2016
Cyanide, Total by EPA 335.4							*Analyst: JKT*
Cyanide	A	**ND**	ER	0.15	mg/L	1	8/22/2016
pH by EPA 9040							*Analyst: JKT*
pH	A	**4.95**		0.1	pH Units	1	8/9/2016 6:45:00 PM

Qualifiers:

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
* - Value exceeds Maximum Contaminant Level
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
MRL - Minimum Reporting Limit

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Analysis Report

ORELAP 100016
EPA OR00028

SMAF Environmental
PO Box 672
Prineville, OR 97754
Client Sample ID: **Tank-4**
Sample Location: **Grab**
Project: **16-0809 Medford Metals**

Lab Order: **1608511**
NRC Sample ID **1608511-03**
Collection Date: **8/9/2016 1:10:00 PM**
Received Date: **8/9/2016 3:27:00 PM**
Reported Date: **8/25/2016 4:26:55 PM**
Matrix: **Aqueous**

ANALYTICAL RESULTS

Analyses	NELAP Accredited	Result	Qual	MRL	Units	Dilution Factor	Date Analyzed
Ion Chromatography by EPA9056							*Analyst: JKT*
Fluoride	A	0.0107		0.002	%	100	8/16/2016
Trace Metals by EPA 7470A							*Analyst: BAR*
Mercury	A	ND	ER	0.002	mg/L	1	8/15/2016
Trace Metals ICP by EPA 6010B							*Analyst: BAR*
Arsenic	A	ND	ER	10	mg/L	20	8/18/2016
Barium	A	ND	ER	20	mg/L	20	8/18/2016
Cadmium	A	ND	ER	0.2	mg/L	20	8/18/2016
Chromium	A	1.26		1	mg/L	20	8/18/2016
Lead	A	10.8		10	mg/L	20	8/18/2016
Selenium	A	ND	ER	10	mg/L	20	8/18/2016
Silver	A	ND	ER	0.2	mg/L	20	8/18/2016
Cyanide, Total by EPA 335.4							*Analyst: JKT*
Cyanide	A	ND	ER	0.15	mg/L	1	8/22/2016
pH by EPA 9040							*Analyst: JKT*
pH	A	4.44		0.1	pH Units	1	8/9/2016 6:45:00 PM

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
* - Value exceeds Maximum Contaminant Level
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
MRL - Minimum Reporting Limit

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Analysis Report ORELAP 100016 EPA OR00028

SMAF Environmental
PO Box 672
Prineville, OR 97754
Client Sample ID: **Tank-5**
Sample Location: **Grab**
Project: **16-0809 Medford Metals**

Lab Order: **1608511**
NRC Sample ID **1608511-04**
Collection Date: **8/9/2016 2:10:00 PM**
Received Date: **8/9/2016 3:27:00 PM**
Reported Date: **8/25/2016 4:26:55 PM**
Matrix: **Aqueous**

ANALYTICAL RESULTS

Analyses	NELAP Accredited	Result	Qual	MRL	Units	Dilution Factor	Date Analyzed
Ion Chromatography by EPA9056							*Analyst: JKT*
Fluoride	A	**2.16**		0.2	%	10000	8/16/2016
Trace Metals by EPA 7470A							*Analyst: BAR*
Mercury	A	**ND**	ER	0.002	mg/L	1	8/15/2016
Trace Metals ICP by EPA 6010B							*Analyst: BAR*
Arsenic	A	**ND**	ER	100	mg/L	20	8/18/2016
Barium	A	**ND**	ER	200	mg/L	20	8/18/2016
Cadmium	A	**ND**	ER	2	mg/L	20	8/18/2016
Chromium	A	**ND**	ER	10	mg/L	20	8/18/2016
Lead	A	**ND**	ER	100	mg/L	20	8/18/2016
Selenium	A	**ND**	ER	100	mg/L	20	8/18/2016
Silver	A	**ND**	ER	2	mg/L	20	8/18/2016
Cyanide, Total by EPA 335.4							*Analyst: JKT*
Cyanide	A	**ND**	ER	0.15	mg/L	1	8/22/2016
pH by EPA 9040							*Analyst: JKT*
pH	A	**2.31**		0.1	pH Units	1	8/9/2016 6:45:00 PM

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
* - Value exceeds Maximum Contaminant Level
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
MRL - Minimum Reporting Limit

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Analysis Report

ORELAP 100016
EPA OR00028

SMAF Environmental
PO Box 672
Prineville, OR 97754
Client Sample ID: **Tank-6**
Sample Location: **Grab**
Project: **16-0809 Medford Metals**

Lab Order: **1608511**
NRC Sample ID **1608511-05**
Collection Date: **8/9/2016 1:20:00 PM**
Received Date: **8/9/2016 3:27:00 PM**
Reported Date: **8/25/2016 4:26:55 PM**
Matrix: **Aqueous**

ANALYTICAL RESULTS

Analyses	NELAP Accredited	Result	Qual	MRL	Units	Dilution Factor	Date Analyzed
Trace Metals by EPA 7470A							*Analyst: BAR*
Mercury	A	ND	ER	0.002	mg/L	1	8/15/2016
Trace Metals ICP by EPA 6010B							*Analyst: BAR*
Arsenic	A	ND	ER	10	mg/L	20	8/18/2016
Barium	A	ND	ER	20	mg/L	20	8/18/2016
Cadmium	A	ND	ER	0.2	mg/L	20	8/18/2016
Chromium	A	3.78		1	mg/L	20	8/18/2016
Lead	A	ND	ER	10	mg/L	20	8/18/2016
Selenium	A	ND	ER	10	mg/L	20	8/18/2016
Silver	A	ND	ER	0.2	mg/L	20	8/18/2016
Cyanide, Total by EPA 335.4							*Analyst: JKT*
Cyanide	A	ND	ER	0.15	mg/L	1	8/22/2016
pH by EPA 9040							*Analyst: JKT*
pH	A	10.68		0.1	pH Units	1	8/9/2016 6:45:00 PM

Qualifiers:

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
* - Value exceeds Maximum Contaminant Level
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
MRL - Minimum Reporting Limit

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Analysis Report ORELAP 100016 EPA OR00028

SMAF Environmental
PO Box 672
Prineville, OR 97754
Client Sample ID: **Tank-7**
Sample Location: **Grab**
Project: **16-0809 Medford Metals**

Lab Order: **1608511**
NRC Sample ID **1608511-06**
Collection Date: **8/9/2016 1:30:00 PM**
Received Date: **8/9/2016 3:27:00 PM**
Reported Date: **8/25/2016 4:26:55 PM**
Matrix: **Aqueous**

ANALYTICAL RESULTS

Analyses	NELAP Accredited	Result	Qual	MRL	Units	Dilution Factor	Date Analyzed
Trace Metals by EPA 7470A							*Analyst: BAR*
Mercury	A	**ND**	ER	0.002	mg/L	1	8/15/2016
Trace Metals ICP by EPA 6010B							*Analyst: BAR*
Arsenic	A	**ND**	ER	10	mg/L	20	8/18/2016
Barium	A	**ND**	ER	20	mg/L	20	8/18/2016
Cadmium	A	**ND**	ER	0.2	mg/L	20	8/18/2016
Chromium	A	**ND**	ER	1	mg/L	20	8/18/2016
Lead	A	**ND**	ER	10	mg/L	20	8/18/2016
Selenium	A	**ND**	ER	10	mg/L	20	8/18/2016
Silver	A	**ND**	ER	0.2	mg/L	20	8/18/2016
Cyanide, Total by EPA 335.4							*Analyst: JKT*
Cyanide	A	**ND**	ER	0.15	mg/L	1	8/22/2016
pH by EPA 9040							*Analyst: JKT*
pH	A	**8.23**		0.1	pH Units	1	8/9/2016 6:45:00 PM

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
* - Value exceeds Maximum Contaminant Level
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
MRL - Minimum Reporting Limit

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Analysis Report

ORELAP 100016
EPA OR00028

SMAF Environmental
PO Box 672
Prineville, OR 97754
Client Sample ID: **Tank-8**
Sample Location: **Grab**
Project: **16-0809 Medford Metals**

Lab Order: **1608511**
NRC Sample ID **1608511-07**
Collection Date: **8/9/2016 1:40:00 PM**
Received Date: **8/9/2016 3:27:00 PM**
Reported Date: **8/25/2016 4:26:55 PM**
Matrix: **Aqueous**

ANALYTICAL RESULTS

Analyses	NELAP Accredited	Result	Qual	MRL	Units	Dilution Factor	Date Analyzed
Trace Metals by EPA 7470A							*Analyst: BAR*
Mercury	A	ND	ER	0.002	mg/L	1	8/15/2016
Trace Metals ICP by EPA 6010B							*Analyst: BAR*
Arsenic	A	ND	ER	10	mg/L	20	8/18/2016
Barium	A	ND	ER	20	mg/L	20	8/18/2016
Cadmium	A	ND	ER	0.2	mg/L	20	8/18/2016
Chromium	A	ND	ER	1	mg/L	20	8/18/2016
Lead	A	ND	ER	10	mg/L	20	8/18/2016
Selenium	A	ND	ER	10	mg/L	20	8/18/2016
Silver	A	ND	ER	0.2	mg/L	20	8/18/2016
Cyanide, Total by EPA 335.4							*Analyst: JKT*
Cyanide	A	ND	ER	0.15	mg/L	1	8/22/2016
pH by EPA 9040							*Analyst: JKT*
pH	A	7.67		0.1	pH Units	1	8/9/2016 6:45:00 PM

Qualifiers:		
	ND - Not Detected at the Reporting Limit	S - Spike Recovery outside accepted recovery limits
	J - Analyte detected below quantitation limits	R - RPD outside accepted recovery limits
	B - Analyte detected in the associated Method Blank	E - Value above quantitation range
	* - Value exceeds Maximum Contaminant Level	MRL - Minimum Reporting Limit

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Analysis Report

ORELAP 100016
EPA OR00028

SMAF Environmental
PO Box 672
Prineville, OR 97754
Client Sample ID: **Tank-9**
Sample Location: **Grab**
Project: **16-0809 Medford Metals**

Lab Order: **1608511**
NRC Sample ID **1608511-08**
Collection Date: **8/9/2016 1:50:00 PM**
Received Date: **8/9/2016 3:27:00 PM**
Reported Date: **8/25/2016 4:26:55 PM**
Matrix: **Aqueous**

ANALYTICAL RESULTS

Analyses	NELAP Accredited	Result	Qual	MRL	Units	Dilution Factor	Date Analyzed
Trace Metals by EPA 7470A							*Analyst: BAR*
Mercury	A	**ND**	ER	0.002	mg/L	1	8/15/2016
Trace Metals ICP by EPA 6010B							*Analyst: BAR*
Arsenic	A	**ND**	ER	10	mg/L	20	8/18/2016
Barium	A	**ND**	ER	20	mg/L	20	8/18/2016
Cadmium	A	**ND**	ER	0.2	mg/L	20	8/18/2016
Chromium	A	**ND**	ER S1	1	mg/L	20	8/18/2016
Lead	A	**ND**	ER	10	mg/L	20	8/18/2016
Selenium	A	**ND**	ER	10	mg/L	20	8/18/2016
Silver	A	**ND**	ER	0.2	mg/L	20	8/18/2016
Cyanide, Total by EPA 335.4							*Analyst: JKT*
Cyanide	A	**ND**	ER	0.15	mg/L	1	8/22/2016
pH by EPA 9040							*Analyst: JKT*
pH	A	**7.73**		0.1	pH Units	1	8/9/2016 6:45:00 PM

Qualifiers:

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
* - Value exceeds Maximum Contaminant Level
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
MRL - Minimum Reporting Limit

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Analysis Report

ORELAP 100016
EPA OR00028

SMAF Environmental
PO Box 672
Prineville, OR 97754
Client Sample ID: **Tank-11**
Sample Location: **Grab**
Project: **16-0809 Medford Metals**

Lab Order: **1608511**
NRC Sample ID **1608511-09**
Collection Date: **8/9/2016 2:00:00 PM**
Received Date: **8/9/2016 3:27:00 PM**
Reported Date: **8/25/2016 4:26:55 PM**
Matrix: **Aqueous**

ANALYTICAL RESULTS

Analyses	NELAP Accredited	Result	Qual	MRL	Units	Dilution Factor	Date Analyzed
Trace Metals by EPA 7470A							*Analyst: BAR*
Mercury	A	ND	ER	0.002	mg/L	1	8/15/2016
Trace Metals ICP by EPA 6010B							*Analyst: BAR*
Arsenic	A	ND	ER	10	mg/L	20	8/18/2016
Barium	A	ND	ER	20	mg/L	20	8/18/2016
Cadmium	A	ND	ER	0.2	mg/L	20	8/18/2016
Chromium	A	ND	ER	1	mg/L	20	8/18/2016
Lead	A	ND	ER	10	mg/L	20	8/18/2016
Selenium	A	ND	ER	10	mg/L	20	8/18/2016
Silver	A	ND	ER	0.2	mg/L	20	8/18/2016
Cyanide, Total by EPA 335.4							*Analyst: JKT*
Cyanide	A	ND	ER	0.15	mg/L	1	8/22/2016
pH by EPA 9040							*Analyst: JKT*
pH	A	8.03		0.1	pH Units	1	8/9/2016 6:45:00 PM

Qualifiers:

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
* - Value exceeds Maximum Contaminant Level
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
MRL - Minimum Reporting Limit

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Analysis Report

ORELAP 100016
EPA OR00028

SMAF Environmental
PO Box 672
Prineville, OR 97754
Client Sample ID: **Tank-O-1**
Sample Location: **Grab**
Project: **16-0809 Medford Metals**

Lab Order: **1608511**
NRC Sample ID **1608511-10**
Collection Date: **8/9/2016 2:35:00 PM**
Received Date: **8/9/2016 3:27:00 PM**
Reported Date: **8/25/2016 4:26:55 PM**
Matrix: **Aqueous**

ANALYTICAL RESULTS

Analyses	NELAP Accredited	Result	Qual	MRL	Units	Dilution Factor	Date Analyzed
Trace Metals by EPA 7470A							*Analyst: BAR*
Mercury	A	**ND**	ER	0.002	mg/L	1	8/15/2016
Trace Metals ICP by EPA 6010B							*Analyst: BAR*
Arsenic	A	**ND**	ER	10	mg/L	20	8/18/2016
Barium	A	**100**		20	mg/L	20	8/18/2016
Cadmium	A	**0.320**		0.2	mg/L	20	8/18/2016
Chromium	A	**221**		1	mg/L	20	8/18/2016
Lead	A	**102**		10	mg/L	20	8/18/2016
Selenium	A	**ND**	ER	10	mg/L	20	8/18/2016
Silver	A	**ND**	ER	0.2	mg/L	20	8/18/2016
Cyanide, Total by EPA 335.4							*Analyst: JKT*
Cyanide	A	**2.25**		0.15	mg/L	1	8/22/2016
pH by EPA 9040							*Analyst: JKT*
pH	A	**12.89**		0.1	pH Units	1	8/9/2016 6:45:00 PM

Qualifiers:

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
* - Value exceeds Maximum Contaminant Level
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
MRL - Minimum Reporting Limit

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Analysis Report

ORELAP 100016
EPA OR00028

SMAF Environmental
PO Box 672
Prineville, OR 97754
Client Sample ID: **Tank-O-2**
Sample Location: **Grab**
Project: **16-0809 Medford Metals**

Lab Order: **1608511**
NRC Sample ID **1608511-11**
Collection Date: **8/9/2016 2:45:00 PM**
Received Date: **8/9/2016 3:27:00 PM**
Reported Date: **8/25/2016 4:26:55 PM**
Matrix: **Aqueous**

ANALYTICAL RESULTS

Analyses	NELAP Accredited	Result	Qual	MRL	Units	Dilution Factor	Date Analyzed
Ion Chromatography by EPA9056							*Analyst: JKT*
Fluoride	A	ND	ER	0.02	%	1000	8/16/2016
Trace Metals by EPA 7470A							*Analyst: BAR*
Mercury	A	0.0283	ER	0.002	mg/L	1	8/15/2016
Trace Metals ICP by EPA 6010B							*Analyst: BAR*
Arsenic	A	ND	ER	10	mg/L	20	8/18/2016
Barium	A	ND	ER	20	mg/L	20	8/18/2016
Cadmium	A	143		0.2	mg/L	20	8/18/2016
Chromium	A	2230		1	mg/L	20	8/18/2016
Lead	A	444		10	mg/L	20	8/18/2016
Selenium	A	ND	ER	10	mg/L	20	8/18/2016
Silver	A	0.320		0.2	mg/L	20	8/18/2016
Cyanide, Total by EPA 335.4							*Analyst: JKT*
Cyanide	A	ND	ER	0.15	mg/L	1	8/22/2016
pH by EPA 9040							*Analyst: JKT*
pH	A	<0.1		0	pH Units	1	8/9/2016 6:45:00 PM

Qualifiers:

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
* - Value exceeds Maximum Contaminant Level
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
MRL - Minimum Reporting Limit

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Analysis Report

ORELAP 100016
EPA OR00028

SMAF Environmental
PO Box 672
Prineville, OR 97754
Client Sample ID: **Totes A**
Sample Location: **Grab, Totes 4 and 5**
Project: **16-0809 Medford Metals**

Lab Order: **1608511**
NRC Sample ID **1608511-12**
Collection Date: **8/9/2016 2:15:00 PM**
Received Date: **8/9/2016 3:27:00 PM**
Reported Date: **8/25/2016 4:26:55 PM**
Matrix: **Aqueous**

ANALYTICAL RESULTS

Analyses	NELAP Accredited	Result	Qual	MRL	Units	Dilution Factor	Date Analyzed
Ion Chromatography by EPA9056							*Analyst: JKT*
Fluoride	A	**ND**	ER	0.02	%	1000	8/16/2016
Trace Metals by EPA 7470A							*Analyst: BAR*
Mercury	A	**ND**	ER	0.002	mg/L	1	8/15/2016
Trace Metals ICP by EPA 6010B							*Analyst: BAR*
Arsenic	A	**ND**	ER	10	mg/L	20	8/18/2016
Barium	A	**ND**	ER	20	mg/L	20	8/18/2016
Cadmium	A	**ND**	ER	0.2	mg/L	20	8/18/2016
Chromium	A	**7.64**		1	mg/L	20	8/18/2016
Lead	A	**ND**	ER	10	mg/L	20	8/18/2016
Selenium	A	**ND**	ER	10	mg/L	20	8/18/2016
Silver	A	**ND**	ER	0.2	mg/L	20	8/18/2016
Cyanide, Total by EPA 335.4							*Analyst: JKT*
Cyanide	A	**ND**	ER	0.15	mg/L	1	8/22/2016
pH by EPA 9040							*Analyst: JKT*
pH	A	**1.04**		0.1	pH Units	1	8/9/2016 6:45:00 PM

Qualifiers:

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
* - Value exceeds Maximum Contaminant Level
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
MRL - Minimum Reporting Limit

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Neilson Research Corporation

245 South Grape Street, Medford, Oregon 97501 541-770-5678 Fax 541-770-2901

Analysis Report

ORELAP 10001G
EPA OR00028

SMAF Environmental
PO Box 672
Prineville, OR 97754
Client Sample ID: **Totes B**
Sample Location: **Grab**
Project: **16-0809 Medford Metals**

Lab Order: **1608511**
NRC Sample ID **1608511-13**
Collection Date: **8/9/2016 2:25:00 PM**
Received Date: **8/9/2016 3:27:00 PM**
Reported Date: **8/25/2016 4:26:55 PM**
Matrix: **Aqueous**

ANALYTICAL RESULTS

Analyses	NELAP Accredited	Result	Qual	MRL	Units	Dilution Factor	Date Analyzed
Ion Chromatography by EPA9056							*Analyst: JKT*
Fluoride	A	**0.253**		0.2	%	10000	8/16/2016
Trace Metals by EPA 7470A							*Analyst: BAR*
Mercury	A	**ND**	ER	0.002	mg/L	1	8/15/2016
Trace Metals ICP by EPA 6010B							*Analyst: BAR*
Arsenic	A	**141**		10	mg/L	20	8/18/2016
Barium	A	**ND**	ER	20	mg/L	20	8/18/2016
Cadmium	A	**0.980**		0.2	mg/L	20	8/18/2016
Chromium	A	**114000**		50	mg/L	1000	8/19/2016
Lead	A	**26.3**		10	mg/L	20	8/18/2016
Selenium	A	**ND**	ER	10	mg/L	20	8/18/2016
Silver	A	**3.34**		0.2	mg/L	20	8/18/2016
Cyanide, Total by EPA 335.4							*Analyst: JKT*
Cyanide	A	**ND**	ER	0.15	mg/L	1	8/22/2016
pH by EPA 9040							*Analyst: JKT*
pH	A	**0.59**		0.1	pH Units	1	8/9/2016 6:45:00 PM

Qualifiers:

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
* - Value exceeds Maximum Contaminant Level
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
MRL - Minimum Reporting Limit

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Neilson Research Corporation

DATA FLAGS

B	Analyte detected in the associated method blank.
BA	BOD Alternative Calculation: The initial results performed by Standard Methods did not fall within parameters of the Standard Methods calculation. An alternate approved calculation was performed using the HACH method and the value reported is an estimated concentration.
C	Sample(s) does not meet NELAP/ORELAP sample acceptance criteria. See Case Narrative.
C1	Sample(s) does not meet NELAP/ORELAP sample acceptance criteria for temperature.
CF	Results confirmed by re-analysis.
CU	Cleanup performed as specified by method.
D1	The diesel elution pattern for the sample is not typical.
D2	The sample appears to be a heavier hydrocarbon range than diesel.
D3	The sample appears to be a lighter hydrocarbon range than diesel.
D4	Detected hydrocarbons do not have pattern and range consistent with typical petroleum products and may be due to biogenic interference.
D5	Detected hydrocarbons in the diesel range appear to be weathered diesel.
E	Estimated value.
ER	Elevated reporting limit due to matrix. Report limits (MDLs, MRLs & PQLs) are adjusted based on variations in sample preparation amounts, analytical dilutions, and percent solids, where applicable.
FC	Fecal Coliforms: Sample(s) received past 40 CFR Part 136 specified holding time. Results reported as estimated values.
G1	The gasoline elution pattern for the sample is not typical.
G2	The sample appears to be a heavier hydrocarbon range than gasoline.
G3	The sample appears to be a lighter hydrocarbon range than gasoline.
G4	Detected hydrocarbons in the gasoline range appear to be weathered gasoline.
HP	Sample re-analysis performed outside of method specified holding time.
HR	Sample received outside of method specified holding time.
HS	Sample analyzed for volatile organics contained headspace.
HT	At the client's request, the sample was analyzed outside of method specified holding time.
H	Analysis performed outside of method specified holding time.
J	Analyte detected below the Minimum Reporting Limit (MRL) and above the Method Detection Limit (MDL). The J flag result is an estimated value and the user should be aware that this data is of limited reliability.
MI	Surrogate or Matrix Spike recovery is out of control limits due to matrix interference. Sample results may be biased.
N	See Case Narrative on page 2 of report.
Q	Closing continuing calibration verification (CCV) or laboratory control sample (LCS) exceeded high recovery limits, but associated samples are non-detect and the sample results are not affected. Data meets EPA/NELAP requirements.
R	Relative percent difference (RPD) is outside of the accepted recovery limits.
R1	Relative percent difference (RPD) is outside of the accepted recovery limits. However, analyses are not controlled on RPD values for sample concentrations that are less than the reporting limit.
R3	The relative percent difference (RPD) and/or percent recovery for the duplicate (DUP) or matrix spike (MS)/matrix spike duplicate (MSD) cannot be accurately calculated due to the concentration of analyte already present in the sample.
R4	Duplicate analysis failed due to result being at or near method reporting limit.
S	Surrogate and/or matrix spike recovery is outside of the accepted recovery limits. Sample results may be biased.
S1	Surrogate or matrix spike recovery is outside of control limits due to dilution necessary for analysis.
SC	Sub-contracted to another laboratory for analysis.
SP	Sample(s) were not collected per EPA Method 5035A protocols. The results are considered minimum values.
T	Toxicity Characteristic Leaching Procedure – Sample submitted contained < 0.5% solids. If the waste contains <0.5% dry solids, the liquid portion of the waste, after filtration, is defined as the TCLP extract.
#	Value exceeds regulatory level for TCLP contaminant.
X1	The motor oil elution pattern for the sample is not typical.
X2	The sample appears to be a heavier hydrocarbon range than motor oil.
X3	The sample appears to be a lighter hydrocarbon range than motor oil.
*	Value exceeds Maximum Contaminant Level or is outside the acceptable range.

NRC SOP QA-1104/AD-3100
Revision 3
Effective Date: 6/3/16

Neilson Research Corporation

Date: 25-Aug-16

CLIENT: SMAF Environmental
Work Order: 1608511
Project: 16-0809 Medford Metals

ANALYTICAL QC SUMMARY REPORT

TestCode: CYANIDE_W_AUTO

Sample ID	MB-36307	SampType:	MBLK	TestCode:	CYANIDE_W	Units:	mg/L	Prep Date:	8/19/2016	RunNo:	89376
Client ID:	ZZZZZ	Batch ID:	36307	TestNo:	EPA 335.4	(EPA 335.3)		Analysis Date:	8/22/2016	SeqNo:	1348595

Analyte	Result	MRL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Cyanide	ND	0.00300									

Sample ID	LCS-36307	SampType:	LCS	TestCode:	CYANIDE_W	Units:	mg/L	Prep Date:	8/19/2016	RunNo:	89376
Client ID:	ZZZZZ	Batch ID:	36307	TestNo:	EPA 335.4	(EPA 335.3)		Analysis Date:	8/22/2016	SeqNo:	1348594

Analyte	Result	MRL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Cyanide	0.3310	0.0300	0.35	0	94.6	90	110				

Sample ID	1608511-01BMS	SampType:	MS	TestCode:	CYANIDE_W	Units:	mg/L	Prep Date:	8/19/2016	RunNo:	89376
Client ID:	Tank-2	Batch ID:	36307	TestNo:	EPA 335.4	(EPA 335.3)		Analysis Date:	8/22/2016	SeqNo:	1348580

Analyte	Result	MRL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Cyanide	1.865	0.150	2	0	93.2	80	120				

Sample ID	1608511-01BMSD	SampType:	MSD	TestCode:	CYANIDE_W	Units:	mg/L	Prep Date:	8/19/2016	RunNo:	89376
Client ID:	Tank-2	Batch ID:	36307	TestNo:	EPA 335.4	(EPA 335.3)		Analysis Date:	8/22/2016	SeqNo:	1348581

Analyte	Result	MRL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Cyanide	1.870	0.150	2	0	93.5	80	120	1.865	0.268	20	

Qualifiers:

E	Value above quantitation range	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Minimum Reporting Limit	R	RPD outside accepted recovery limits	S	Spike Recovery outside accepted recovery limits

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Neilson Research Corporation

Date: 25-Aug-16

CLIENT: SMAF Environmental
Work Order: 1608511
Project: 16-0809 Medford Metals

ANALYTICAL QC SUMMARY REPORT

TestCode: EPA 9056_SW846

Sample ID MBLK	SampType: MBLK	TestCode: EPA 9056_S	Units: mg/L	Prep Date:		RunNo: 89240
Client ID: ZZZZZ	Batch ID: R89240	TestNo: EPA9056		Analysis Date: 8/16/2016		SeqNo: 1345992

Analyte	Result	MRL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Fluoride	ND	0.200									

Sample ID LCS	SampType: LCS	TestCode: EPA 9056_S	Units: mg/L	Prep Date:		RunNo: 89240
Client ID: ZZZZZ	Batch ID: R89240	TestNo: EPA9056		Analysis Date: 8/16/2016		SeqNo: 1345991

Analyte	Result	MRL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Fluoride	0.9630	0.200	1	0	96.3	90	110				

Sample ID 1608511-01CMS	SampType: MS	TestCode: EPA 9056_S	Units: %	Prep Date:		RunNo: 89240
Client ID: Tank-2	Batch ID: R89240	TestNo: EPA9056		Analysis Date: 8/16/2016		SeqNo: 1345983

Analyte	Result	MRL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Fluoride	1.269	0.200	1	0.217	105	80	120				

Sample ID 1608511-01CMSD	SampType: MSD	TestCode: EPA 9056_S	Units: %	Prep Date:		RunNo: 89240
Client ID: Tank-2	Batch ID: R89240	TestNo: EPA9056		Analysis Date: 8/16/2016		SeqNo: 1345984

Analyte	Result	MRL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Fluoride	1.287	0.200	10000	0.217	0.0107	80	120	1.269	1.41	15	

Qualifiers:

- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- ND Not Detected at the Minimum Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

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Neilson Research Corporation

Date: 25-Aug-16

CLIENT: SMAF Environmental
Work Order: 1608511
Project: 16-0809 Medford Metals

ANALYTICAL QC SUMMARY REPORT

TestCode: HG_W_7470

Sample ID MB-36217	SampType: MBLK	TestCode: HG_W_7470	Units: mg/L	Prep Date: 8/11/2016	RunNo: 89211
Client ID: ZZZZZ	Batch ID: 36217	TestNo: EPA 7470A	(EPA 245.1/7	Analysis Date: 8/15/2016	SeqNo: 1345213

Analyte	Result	MRL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	ND	0.000200									

Sample ID LCS-36217	SampType: LCS	TestCode: HG_W_7470	Units: mg/L	Prep Date: 8/11/2016	RunNo: 89211
Client ID: ZZZZZ	Batch ID: 36217	TestNo: EPA 7470A	(EPA 245.1/7	Analysis Date: 8/15/2016	SeqNo: 1345214

Analyte	Result	MRL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.005043	0.000200	0.005	0	101	80	120				

Sample ID 1608511-03AMS	SampType: MS	TestCode: HG_W_7470	Units: mg/L	Prep Date: 8/11/2016	RunNo: 89211
Client ID: Tank-4	Batch ID: 36217	TestNo: EPA 7470A	(EPA 245.1/7	Analysis Date: 8/15/2016	SeqNo: 1345230

Analyte	Result	MRL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.04623	0.00200	0.05	0	92.5	75	125				

Sample ID 1608511-03AMSD	SampType: MSD	TestCode: HG_W_7470	Units: mg/L	Prep Date: 8/11/2016	RunNo: 89211
Client ID: Tank-4	Batch ID: 36217	TestNo: EPA 7470A	(EPA 245.1/7	Analysis Date: 8/15/2016	SeqNo: 1345231

Analyte	Result	MRL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.04629	0.00200	0.05	0	92.6	75	125	0.04623	0.130	20	

Qualifiers:
E Value above quantitation range
H Holding times for preparation or analysis exceeded
J Analyte detected below quantitation limits
ND Not Detected at the Minimum Reporting Limit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

Attachment B2
Sept. 26-27, 2019, EQC meeting
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Neilson Research Corporation

Date: 25-Aug-16

CLIENT: SMAF Environmental
Work Order: 1608511
Project: 16-0809 Medford Metals

ANALYTICAL QC SUMMARY REPORT

TestCode: ICP_6010_W

Sample ID MB-36298	SampType: MBLK	TestCode: ICP_6010_W	Units: mg/L	Prep Date: 8/18/2016	RunNo: 89354
Client ID: ZZZZZ	Batch ID: 36298	TestNo: EPA 6010B	(EPA 3010A)	Analysis Date: 8/18/2016	SeqNo: 1348148

Analyte	Result	MRL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	ND	0.0500									
Barium	ND	0.100									
Cadmium	ND	0.00100									
Chromium	ND	0.00500									
Lead	ND	0.0500									
Selenium	ND	0.0500									
Silver	ND	0.00100									

Sample ID LCS-36298	SampType: LCS	TestCode: ICP_6010_W	Units: mg/L	Prep Date: 8/18/2016	RunNo: 89354
Client ID: ZZZZZ	Batch ID: 36298	TestNo: EPA 6010B	(EPA 3010A)	Analysis Date: 8/18/2016	SeqNo: 1348149

Analyte	Result	MRL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	1.005	0.0500	1	0	101	85	115				
Barium	0.9667	0.100	1	0	96.7	85	115				
Cadmium	0.9619	0.00100	1	0	96.2	85	115				
Chromium	1.062	0.00500	1	0	106	85	115				
Lead	0.9801	0.0500	1	0	98.0	85	115				
Selenium	0.9944	0.0500	1	0.0344	96.0	85	115				
Silver	0.9562	0.00100	1	0	95.6	85	115				

Sample ID 1608511-08AMS	SampType: MS	TestCode: ICP_6010_W	Units: mg/L	Prep Date: 8/18/2016	RunNo: 89354
Client ID: Tank-9	Batch ID: 36298	TestNo: EPA 6010B	(EPA 3010A)	Analysis Date: 8/18/2016	SeqNo: 1348165

Analyte	Result	MRL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	ND	10.0	10	1.06	88.6	70	130				ER
Barium	ND	20.0	10	0	93.2	70	130				ER
Cadmium	9.380	0.200	10	0	93.8	70	130				
Chromium	95.06	1.00	10	0.14	949	70	130				S1
Lead	ND	10.0	10	0	90.2	70	130				ER

Qualifiers:
E Value above quantitation range
ND Not Detected at the Minimum Reporting Limit
H Holding times for preparation or analysis exceeded
R RPD outside accepted recovery limits
J Analyte detected below quantitation limits
S Spike Recovery outside accepted recovery limits

Attachment B2
Sept. 26-27, 2019, EQC meeting
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Neilson Research Corporation

Date: 25-Aug-16

CLIENT: SMAF Environmental
Work Order: 1608511
Project: 16-0809 Medford Metals

ANALYTICAL QC SUMMARY REPORT

TestCode: ICP_6010_W

Sample ID 1608511-08AMS	SampType: MS	TestCode: ICP_6010_W	Units: mg/L	Prep Date: 8/18/2016	RunNo: 89354
Client ID: Tank-9	Batch ID: 36298	TestNo: EPA 6010B	(EPA 3010A)	Analysis Date: 8/18/2016	SeqNo: 1348165

Analyte	Result	MRL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Selenium	15.68	10.0	10	6.16	95.2	70	130				
Silver	9.480	0.200	10	0.08	94.0	70	130				

Sample ID 1608511-08AMSD	SampType: MSD	TestCode: ICP_6010_W	Units: mg/L	Prep Date: 8/18/2016	RunNo: 89354
Client ID: Tank-9	Batch ID: 36298	TestNo: EPA 6010B	(EPA 3010A)	Analysis Date: 8/18/2016	SeqNo: 1348166

Analyte	Result	MRL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	10.28	10.0	10	1.06	92.2	70	130	9.92	3.56	20	
Barium	ND	20.0	10	0	95.2	70	130	9.32	0	20	ER
Cadmium	9.580	0.200	10	0	95.8	70	130	9.38	2.11	20	
Chromium	55.16	1.00	10	0.14	550	70	130	95.06	53.1	20	S1
Lead	ND	10.0	10	0	92.6	70	130	9.02	0	20	ER
Selenium	15.72	10.0	10	6.16	95.6	70	130	15.68	0.255	20	
Silver	9.720	0.200	10	0.08	96.4	70	130	9.48	2.50	20	

Qualifiers:
E Value above quantitation range
ND Not Detected at the Minimum Reporting Limit
H Holding times for preparation or analysis exceeded
R RPD outside accepted recovery limits
J Analyte detected below quantitation limits
S Spike Recovery outside accepted recovery limits

Attachment B2
Sept. 26-27, 2019, EQC meeting
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Neilson Research Corporation

Date: 25-Aug-16

CLIENT: SMAF Environmental
Work Order: 1608511
Project: 16-0809 Medford Metals

ANALYTICAL QC SUMMARY REPORT

TestCode: PH_W_RCRA

Sample ID	LCS-R89107	SampType:	LCS	TestCode:	PH_W_RCRA	Units:	pH Units	Prep Date:		RunNo:	89107
Client ID:	ZZZZZ	Batch ID:	R89107	TestNo:	EPA 9040			Analysis Date:	8/9/2016	SeqNo:	1342051

Analyte	Result	MRL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
pH	6.860	0.10	6.86	0	100	97.1	102.9				

Sample ID	1608511-01CDUP	SampType:	DUP	TestCode:	PH_W_RCRA	Units:	pH Units	Prep Date:		RunNo:	89107
Client ID:	Tank-2	Batch ID:	R89107	TestNo:	EPA 9040			Analysis Date:	8/9/2016	SeqNo:	1342053

Analyte	Result	MRL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
pH	0.3400	0.10						0.36	5.71	10	

Qualifiers:

E	Value above quantitation range	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Minimum Reporting Limit	R	RPD outside accepted recovery limits	S	Spike Recovery outside accepted recovery limits

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Attachment B2
Sept. 26-27, 2019, EQC meeting
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NEILSON RESEARCH CORPORATION
Environmental Testing Laboratory
245 South Grape Street * Medford, OR 97501
(541) 770-5678 Fax (541) 770-2901

Chain of Custody Record

This Chain of Custody is a LEGAL DOCUMENT and must be filled out accurately.

Section A – Required Client Information

Company:	SMAF Environmental
Address:	P.O. Box 672
	Prineville, OR 97754
Email:	rscottp@whhsmaf.com
Phone: (541) 477-5643	Fax: (541) 447-2190
Collected By (Print):	Scott Pieper / CACHain
Collected By (Sign):	
Email Report: X Yes ___ No	Mail Report: ___ Yes ___ No
Fax Report: ___ Yes ___ No	

Section B – Required Project Information

Project Name:	Medford Metals
Project Number:	16-0809
Report To:	Scott Pieper (rscottp@whhsmaf.com)
Copy To:	John Hill (smafenviro@gmail.com)

Section C – Invoice Information

Attention:	Scott Pieper
Company Name:	SMAF Environmental LLC
Address:	P.O. Box 672
	Prineville, OR 97754
P.O. #	

Section D – Rush Status (Subject to Scheduling)

X Standard 10-14 Days
___ 5 Business Days (50% surcharge)
___ 3 Business Days (75% surcharge)
___ 24 - 48 hours (100% surcharge)
___ Other _____
Authorized ___ Yes ___ No

Section E – Sample Information

NRC Workorder # (Lab Use Only): 1609611

Sample ID	Comp/Grab	Matrix*	Date Collected	Time Collected	No. of Containers	Analysis Requested: RCRA-8 metals total	Cyanides	pH	Fluorides	Remarks/Field Data	NRC Sample # (Lab Use Only)
Tank-2	G	W	8/9/2016	1250		X	X	X	✓		01
Tank-3	G	W	8/9/2016	1300		X	X	X	✓		02
Tank-4	G	W	8/9/2016	1310		X	X	X	✓ added 8/10/16 per SMAF		03
Tank-5	G	W	8/9/2016	1410		X	X	X	✓		04
Tank-6	G	W	8/9/2016	1320		X	X	X			05
Tank-7	G	W	8/9/2016	1330		X	X	X			06
Tank-8	G	W	8/9/2016	1340		X	X	X			07
Tank-9	G	W	8/9/2016	1350		X	X	X			08
Tank-11	G	W	8/9/2016	1400		X	X	X			09
Tank O-1	G	W	8/9/2016	1435		X	X	X			10
Tank O-2	G	W	8/9/2016	1445		X	X	X			11

*Matrix: DW - Drinking Water WW - Wastewater W - Water S - Soil/Solid SL - Sludge O - Oil WP - Wipe OT - Other

Section F – Relinquish/Receive

	Sign	Print	Date	Time
Relinquished By:		Scott Pieper	8/9/2016	1527
Received By:				
Relinquished By:				
Received By:				
Relinquished By:				
Received By Laboratory:			8/9/16	1527

Section G – Lab Use Only

Temp:	10.6
4°C +/- 2°C:	X Yes ___ No
Received on Ice:	✓ Yes ___ No
Number of Bottles Received:	11
pH Checked:	NA
COC Seals Intact:	___ Yes ___ No X NA
Field Blank Included:	___ Yes X No

Received Via ___ UPS ___ FedEX ___ Other X Hand

Payment ✓ Invoice Cash VISA M/C Check # Amount

NEILSON RESEARCH CORPORATION
Environmental Testing Laboratory
245 South Grape Street * Medford, OR 97501
(541) 770-5678 fax (541) 770-2901

Chain of Custody Record

This Chain of Custody is a LEGAL DOCUMENT and must be filled out accurately.

Section A
Required Client Information

Company:	SMAF Environmental
Address:	P.O. Box 672
	Prineville, OR 97754
Email:	rscottp@whhsmaf.com
Phone: (541) 477-5643	Fax: (541) 447-2190
Collected By (Print):	Scott Pieper
Collected By (Sign):	
Email Report	X Yes ___ No
Mail Report	___ Yes ___ No
Fax Report	___ Yes ___ No

Section B
Required Project Information

Project Name:	Medford Metals
Project Number:	16-0809
Report To:	Scott Pieper (rscottp@whhsmaf.com)
Copy To:	John Hill (smafenviro@gmail.com)

Section C
Invoice Information

Attention:	Scott Pieper
Company Name:	SMAF Environmental LLC
Address:	P.O. Box 672
	Prineville, OR 97754
P.O. #	

Section D
Rush Status (Subject to Scheduling)

- X Standard 10-14 Days
- ___ 5 Business Days (50% surcharge)
- ___ 3 Business Days (75% surcharge)
- ___ 24 - 48 hours (100% surcharge)
- ___ Other ___

Authorized ___ Yes ___ No

Section E
Sample Information

Sample ID	Comp/Grab	Matrix*	Date Collected	Time Collected	No. of Containers	Analysis Requested: RCRA-8 metals total	Cyanides	pH	Fluorides	Remarks/Field Data	NRC Sample # (Lab Use Only)
TOTES A	COMP	AQ	8/9/17	1415		X	X	X	✓	TOTES # 5	12
TOTES B	COMP	AQ	"	1425		X	X	X	/		13

NRC Workorder # (Lab Use Only) 1608511

*Matrix: DW - Drinking Water WW - Wastewater W - Water S - Soil/Solid SL - Sludge O - Oil WP - Wipe OT - Other

Section F
Relinquish/Receive

	Sign	Print	Date	Time
Relinquished By:		Scott Pieper	8/9/2016	1527
Received By:				
Relinquished By:				
Received By:				
Relinquished By:				
Received By Laboratory:				

Section G
Lab Use Only

Temp:	19.5
4°C +/- 2°C:	X Yes ___ No
Received on Ice:	X Yes ___ No
Number of Bottles Received:	2
pH Checked:	
COC Seals Intact:	___ Yes ___ No ___ NA
Field Blank Included:	___ Yes X No

Received Via ___ UPS ___ FedEX ___ Other ___ Hand:

Payment: X Invoice Cash VISA M/C Check # Amount

ELWORTH Susan

From: LOBATO Dan
Sent: Wednesday, September 21, 2016 8:38 AM
To: ELWORTH Susan
Subject: 702 S Grape Street
Attachments: MedfordPlatingChemInv.pdf; MedfordPlatingTanks.pdf

Dan Lobato
Compliance Specialist
Western Region Hazardous Waste Program
165 East 7th Ave., Suite 100, Eugene, OR 97401
541-686-7998 (direct line)
541-686-7551 (fax)
lobato.dan@deq.state.or.us

EXHIBIT
A8 4pages

Medford Metals
702 S Grape Street, Medford, OR

Chemical Inventory for Disposal/Recycle

Name	Size	Quantity	
Chrome Foam Mist Easer	1 gallon	2	
unknown	5 gallon	1	
HCR-842 (CH)	5 gallon	1	
Sulfuric Acid	1 gallon	3	
Unlabelled	1 gallon	1	
Cadmium Oxide		100 lbs	
Unichrome	small barrel	1	
Nickel Carbonate	small barrel	1	
Nickel Chloride	5 gallon	1	
A-5/ZD 100	5 gallon	1	
Nickel Aditive Y-17	5 gallon	2	1 partial
Unibrite B-100	5 gallon	2	
Bright Nickel Adjuster	5 gallon	1	
Nickel Sulfate	55 gallon	1	nearly empty
Hycrochloric Acid	55 gallon	2	
Liquid Nickel Sulfate	55 gallon	1	
Muriatic Acid	55 gallon	1	
Merostrip (NaOH powder)	55 gallon	1	cardboard drum

Other

Fluorescent Tubes	picture
Outdor dust filter	(nearly empty), picture
Filters	2 pictures

Medford Plating Tank Info

Tank ID	Length	Width	Depth	Liquid Depth	Liquid volume (ft^3)	Liquid volume (gallons)	pH
1	12	3.2	4	0	0	0	
2	10	4	4	2	80	598.4	
3	8	4	3.25	0.67	21.44	160.4	
4	10	5	4	2	100	748.0	
5	8	3	3	1.33	31.92	238.8	
6	8	2.5	3	0.75	15	112.2	
7	8	3	3	2	48	359.0	
8	8	3	3	2	48	359.0	
9	8	2.5	3	0.25	5	37.4	
10	8	3	3	0	0	0.0	
11	8	2.5	3	1.3	26	194.5	
O-1	8	1.67	3	0.6	8.016	60.0	
O-2	8	3	3	0.33	7.92	59.2	
O-3	8	3	3	0	0	0.0	
Tote-1						275	
Tote-2						275	
Tote-3						50	
Tote-4						275	
Tote-5						275	
					Total Gallons	**4076.9**	

Medford Plating Tank Info

Tank ID	Length	Width	Depth	Liquid Depth	Liquid volume (ft^3)	Liquid volume (gallons)	pH
1	12	3.2	4	0	0	0	
2	10	4	4	2	80	598.4	
3	8	4	3.25	0.67	21.44	160.4	
4	10	5	4	2	100	748.0	
5	8	3	3	1.33	31.92	238.8	
6	8	2.5	3	0.75	15	112.2	
7	8	3	3	2	48	359.0	
8	8	3	3	2	48	359.0	
9	8	2.5	3	0.25	5	37.4	
10	8	3	3	0	0	0.0	
11	8	2.5	3	1.3	26	194.5	
O-1	8	1.67	3	0.6	8.016	60.0	
O-2	8	3	3	0.33	7.92	59.2	
O-3	8	3	3	0	0	0.0	
Tote-1						275	
Tote-2						275	
Tote-3						50	
Tote-4						275	
Tote-5						275	
					Total Gallons	**4076.9**	

ELWORTH Susan

From: LOBATO Dan
Sent: Wednesday, May 24, 2017 4:16 PM
To: ELWORTH Susan
Subject: FW: New Ownership RCRA SI Form
Attachments: 702 S Grape St DEQ form (SP) R.pdf

FYI

From: Scott Pieper [mailto:rscottp@whhsmaf.com]
Sent: Thursday, October 20, 2016 11:03 AM
To: MAYES Edna D <edna.d.mayes@state.or.us>
Cc: LOBATO Dan <dan.lobato@state.or.us>
Subject: Re: New Ownership RCRA SI Form

Hi Edna,

Here is the completed, signed form for the change of ownership at Medford Metals.

Thank you,

> On October 6, 2016 at 2:57 PM MAYES Edna D <edna.d.mayes@state.or.us> wrote:
>
> Hi Scott,
>
> Per your request please find attached Pre-Printed Site ID Form to change ownership at Medford Plating. Thanks.
>
> Sincerely,
>
> *Edna D. Mayes*
>
> Edna D. Mayes
>
> Hazardous Waste Data/Invoicing Specialist
>
> ODEQ Operations
>
> 503 229-6938

EXHIBIT
A9 6pages

RCRA Waste Site Identification Form

Site ID

State of Oregon Department of Environmental Quality
Accounting Section
811 SW Sixth Avenue, Portland, OR 97204-1390
Questions: (503)229-6938 in Portland, OR or toll free in Oregon: (800)452-4011 Ext. 6938
Fax: (503)229-6977
TTY: (800)735-2900
Email: hazwaste@deq.state.or.us
Web site: www.DeqHazwaste.Net

1. Reason for Submittal

- ☒ To provide **New** Notification of Regulated Waste Activity (complete entire form)
  - ☐ Initial Notification ($200 non-refundable fee required)
  - ☒ Change in business ownership (represent the new owner) (No fee required)
  - ☐ Reactivation of RCRA Site ID Number (no fee required)
- ☐ To provide **Revised** Site Identification Information
- ☐ To **Withdraw** Site Identification Number
  - ☐ Completion of RCRA waste activity
  - ☐ Change in business ownership (represent the old owner) Effective Date:
- ☐ To provide as a component of the **Annual Hazardous Waste Report** (skip section 11, 12, and 13)
  Reporting Year: If ownership changed: ☐ Filing for entire year ☐ Filing for partial year
- ☐ To provide as a component of the **Universal Waste or Used Oil Annual Report** (skip sections 10 and 11)
  Reporting Year:

2. RCRA Site ID Number: ORD987201480

3a. Site Location Information

Company Name: Medford Plating Inc
Site Location: 702 S GRAPE ST
MEDFORD, OR 97501
County: JACKSON
Corp. Div. Reg. Nbr.: 097071-18
NAICS Code: 332813
Employee Count: 6

3b.

Company Name: None
Site Location: 702 S Grape St
City/State/Zip: Medford OR 97501
County: Jackson
Corp. Div. Reg. Nbr.:
NAICS Code:
Employee Count: 0

4a. Site Contact

Person Name: Jesse Lackey
Mailing Address: 702 South Grape St
Medford, OR 97501
Country: UNITED STATES
Phone Number (Ext): 541 773 6969
Email Address: medfordplatinginc@hotmail.com

4b.

Person Name: General Property Group LLC
Mailing Address: P.O. Box 8158
City/State/Zip: Medford OR 97501
Country: United States
Phone Number (Ext): 541-951-1146
Email Address: opcope@hotmail.com

5a. Land Owner

Name: Medford Plating Inc
Mailing Address: 702 South Grape Street
Medford, OR 97501
Country: UNITED STATES
Phone Number (Ext): (541) 773-6969
Owner Type: Private

5b.

Name: General Property Group LLC
Mailing Address: P.O. Box 8158
City/State/Zip: Medford OR 97501
Country: United States
Phone Number (Ext): 541-951-1146
Owner Type: ☒ Private ☐ Federal ☐ State ☐ County ☐ District ☐ Municipal ☐ Tribal ☐ Other

RCRA Waste Site Identification Form

Site ID

RCRA Site ID Number: ORD987201480

6a. Legal Owner	6b.
Name: Steve McGhehay	Name: General Property Group LLC
Mailing Address: 652 N Aylor Ct	Mailing Address: P.O. Box 8158
Sisters, OR 97759	City/State/Zip: Medford OR 97501
Country: UNITED STATES	Country: United States
Phone Number (Ext): 541 549-6754	Phone Number (Ext): 541-951-1146
Owner Since: 08/01/2010	Owner Since: 11/3/15
Owner Type: Private	Owner Type: ☒ Private ☐ Federal ☐ State ☐ County ☐ District ☐ Municipal ☐ Tribal ☐ Other

7a. Site Operator	7b.
Name: Jesse Lackey	Name: None
Mailing Address: 702 South Grape Street	Mailing Address:
Medford, OR 97501	City/State/Zip:
Country: UNITED STATES	Country:
Phone Number (Ext): (541) 773-6969	Phone Number (Ext):
Operator Since: 09/01/2010	Operator Since:
Operator Type: Private	Operator Type: ☒ Private ☐ Federal ☐ State ☐ County ☐ District ☐ Municipal ☐ Tribal ☐ Other

8a. Hazardous Waste Forms Contact	8b.
Person Name: Jesse Lackey	Person Name: Scott Pieper
Organization: Medford Plating Inc	Organization: SMAF Environmental LLC
Mailing Address: 702 South Grape St	Mailing Address: PO Box 672
Medford, OR 97501	City/State/Zip: Prineville, OR 97754
Country: UNITED STATES	Country: Crook
Phone Number (Ext): 541 773 6969	Phone Number (Ext): (541) 447-5643
Email Address: medfordplatinginc@hotmail.com	Email Address: rscottp@whhsmaf.com

9a. Hazardous Waste Fee Contact	9b.
Person Name: Jesse Lackey	Person Name:
Organization: Medford Plating Inc	Organization: General Property Group LLC
Mailing Address: 702 South Grape St	Mailing Address: P.O. Box 8158
Medford, OR 97501	City/State/Zip: Medford OR 97501
Country: UNITED STATES	Country: United States
Phone Number (Ext): 541 773 6969	Phone Number (Ext): 541-951-1146
Email Address: medfordplatinginc@hotmail.com	Email Address: oproqc@hotmail.com

RCRA Waste Site Identification Form

Site ID

RCRA Site ID Number: ORD987201480

10. Hazardous Waste Activities (Mark the appropriate boxes for activities that apply to your site)

1. Generator of Hazardous Waste

- [x] a. LQG: Large Quantity Generator (Generates greater than 2,200 lbs/mo or more than 2.2 lbs of acute hazardous waste)
- [ ] b. SQG: Small Quantity Generator: (Generates between 220-2,200 lbs/mo or more than 2,200 lbs accumulated on-site)
- [ ] c. CEG: Conditionally Exempt Generator: (Generates between 0-220 lbs/mo, less than 2.2 lbs of acute hazardous waste and less than 2,200 lbs accumulated on-site)

2. Are you a hazardous waste generator due to remediation of environmental contamination or a business closure?

- [x] Yes
- [ ] No

If yes, find out about expedited annual reporting at: www.deq.state.or.us/wmc/hw/factsheets/HWFeesForCleanups.pdf

- [ ] **3. Importer of Hazardous Waste**
- [ ] **4. Generator of Mixed Waste (hazardous and radioactive)**

5. Transporter of Hazardous Waste

- [ ] a. Transports hazardous waste generated at this facility
- [ ] b. Transports for commercial purposes
- [ ] c. Hazardous Waste Transfer Facility

- [ ] **6. Treatment, Storage, Disposal (TSD) Facility**
  (Note: A RCRA Permit is required for this activity)

7. Recycler of Hazardous Waste

- [ ] a. Recycles HW generated at this facility
- [ ] b. Recycles HW generated by other facilities

8. Hazardous waste management in RCRA permit exempt units (e.g. elementary neutralization units, waste water treatment units, or accumulation tanks or containers)

- [ ] a. Manages HW generated at this facility
- [ ] b. Manages HW generated by other facilities

9. Exempt Boiler and/or Industrial Furnace

- [ ] a. Small Quantity On-Site Burner Exemption
- [ ] b. Smelting, Melting, Refining Furnace Exemption

- [ ] **10. Underground Injection Control**

If yes, there may be addition reporting requirements at: www.deq.state.or.us/wq/groundwa/uichome.htm

11. Description of Hazardous Wastes

1. Waste Codes for Federally Regulated Hazardous Wastes: Identify the federal hazardous waste codes that best describe your waste (e.g., D001 - Ignitable, D002 - Corrosive, D003 - Reactive, etc.) List additional federal codes in the comments section.

D002, D007, D008 D005, D006, D011, D004

2. Waste Codes for State Regulated(i.e., non-federal) Hazardous Wastes: Identify the Oregon state-only hazardous waste codes that best describe your waste (e.g., ORX001, ORX007, ORP003, ORU001, etc.)

12. Universal Waste Activities (Mark the appropriate boxes for activities that apply to your site)

- [ ] **1. Large Quantity Handler of Universal Waste**
  (Accumulates a total of 11,000 lbs. or more of universal waste at any time, at the location at which it was generated)
- [ ] **2. Off-site Universal Waste Collection Site**
  (Accumulates a total of 2,200 lbs. or more of universal waste received from off-site). If yes, there are additional notification requirements at: www.deq.state.or.us/wmc/documents/uwnotification.pdf
- [ ] **3. Pesticide Collection Program**
  (Collects and accumulates waste pesticides from off-site). If yes, there are additional notification requirements at: www.deq.state.or.us/wmc/documents/uwnotification.pdf

- [ ] **4. Destination Facility for Universal Waste**
  (A facility that treats, disposes of, or recycles universal wastes on-site)

5. Mark all boxes that apply

	Generate	Accumulate
a. Batteries	☐	☐
b. Mercury containing equipment	☐	☐
c. Lamps	☐	☐
d. Pesticides	☐	☐

13. Used Oil Activities (Mark the appropriate boxes for activities that apply to your site)

- [ ] **1. Used Oil Collection Center**
- [ ] **2. Used Oil Transporter**
- [ ] **3. Used Oil Transfer Facility**

4. Used Oil Processor/Re-refiner

Indicate type(s) of activity(s)

- [ ] a. Processor
- [ ] b. Re-refiner

- [ ] **5. Off-Specification Used Oil Burner (not used oil space heaters operating according to CFR 279.23)**

6. Used Oil Fuel Marketer

Indicate type(s) of activity(s)

- [ ] a. Marketer who directs shipments of off-specification used oil to off-specification used oil burner
- [ ] b. Marketer who first claims the used oil to meet the specifications

RCRA Waste Site Identification Form

Site ID

RCRA Site ID Number: ORD987201480

14. Comments

15. Certification — **This form cannot be processed without a signature**

I certify that under penalty of law that I have personally examined and am familiar with the information submitted in this demonstration and all attached documents, and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

Manager

Signature

10/18/16

Date

Kevin Curtin as Manager of

Name (print or type) General Property Group LLC

Manager of General Property Group LLC

Title

If you have special accommodation needs or require this documentin an alternative format, please contact the Hazardous Waste Section in Portland at 503-229-6938 or toll-free within the State of Oregon at 1-800-452-4011, extension 6938

16. Electronic Submittals

DEQ will issue a PIN number and electronic filing instructions in a letter addressed to the Forms Contact in Section 8 on this form. The electronic reporting system may be used for your company's annual reporting and site identification updates.

Oregon
Kate Brown, Governor

Department of Environmental Quality
Headquarters
811 SW 6th Ave
Portland, OR 97204-1390
(503) 229-5696
FAX (503) 229-6124
TTY: 711

August 30, 2016

Via Certified Mail 7014 2870 0001 3373 5289

General Property Group LLC
Kevin J. Curtin, Registered Agent
15800 SW Boones Ferry Road, Suite A-3
Lake Oswego OR 97035

Re: Remedial Action Order
No. LQ/HW-WR-2016-134

This letter is to inform you that DEQ has issued you a Remedial Action Order (Order) pursuant to Oregon Revised Statutes 465.260. This Order is not appealable.

DEQ issued this Order because you purchased a property located at 702 S. Grape Street in Medford where you have allowed the storage of large amounts of known and potentially hazardous substances, including nickel and copper plating solutions and acids. Some of these wastes are currently leaking or have leaked in the past. As the owner of a facility at which hazardous substances are stored, you are responsible for taking "remedial action" including managing the substances to prevent further releases and the proper disposal of any wastes.

The Order requires you to determine which substances are solid or hazardous waste, to dispose of those wastes, and to provide documentation to DEQ. For your safety and to ensure compliance with all applicable laws, all work should be done by an environmental contractor. Hazardous waste must be transported with a manifest by a licensed hazardous waste transporter. Some items may be still useable or recyclable. Prior to disposing of any materials, please contact Dan Lobato at (541) 686-7998.

DEQ will be taking further enforcement action in the form of a civil penalty for violations of hazardous waste laws. Your prompt compliance with the Order will mitigate this penalty. If you fail to comply with the Order and/or additional violations occur, those violations will also be subject to civil penalties and/or injunctive relief. Alternatively, should you fail to comply with the Order, DEQ may perform the work in which case you would be liable for DEQ's costs and for punitive damages up to three times the amount of the DEQ's costs.

If you have any questions regarding the legal aspects of the Order, please contact Susan Elworth at 503-229-5152. If you have any questions about the technical requirements of the Order, please contact Dan Lobato at 541-686-7998.

Sincerely,

Susan Elworth for

Leak K. Feldon
Manager, Office of Compliance and Enforcement

cc: Dan Lobato, WR, Eugene office

EXHIBIT
tabbies
A10 9 pages

BEFORE THE ENVIRONMENTAL QUALITY COMMISSION

OF THE STATE OF OREGON

IN THE MATTER OF: GENERAL PROPERTY GROUP LLC, Respondent.	)	REMEDIAL ACTION ORDER NO. LQ/HW-WR-2016-134

I. AUTHORITY

The Department of Environmental Quality (Department) hereby issues this Remedial Action Order (Order) pursuant to Oregon Revised Statutes (ORS) 465.260.

II. PURPOSE

The purpose of this Order is to protect public health, safety, welfare, and the environment by ordering the removal or remedial action related to a release or threat of release of a hazardous substance.

III. FINDINGS OF FACT

1. On November 3, 2015, Respondent purchased a property located at 702 S. Grape Street in Medford, Oregon.

2. Seller's Counter Offer No. 1 to Sale Agreement #PC93015 between Respondent and the prior owner, dated October 8, 2015, states "Seller is aware of the following issues: Line 238: there are hazardous substances."

3. From the 1960's until when Respondent purchased the property, the property was used as a metal plating facility.

4. On August 9, 2016, Department staff inspected the property and observed various substances which are typically used in the metal plating process stored in a plating room, storage room, and outside the building. These substances included:

a. Plating Room

i. Three 250 gallon totes containing nickel plating solution;

ii. Two 250 gallon totes containing copper plating solution;

iii. Seven processing tanks containing unknown liquid and plating sludge;

iv. Four tanks of liquids with a pH of 0;

v. One 15 gallon container of floor sweepings; and

vi. One 15 and one 5 gallon container of spent filters.

b. Storage Room

i. One 55 gallon container of muriatic acid;

ii. One 55 gallon container of hydrochloric acid;

iii. Two 55 gallon containers of nickel sulfate;

iv. One 55 gallons container of sodium hydroxide;

v. Three 1 gallon containers of sulfuric acid;

vi. One 5 gallon container of cadmium oxide;

vii. One 15 and one 5 gallon container of nickel carbamate;

viii. One 5 gallon container of chromic oxide;

ix. One 20 pound bag of boric acid;

x. One 5 gallon container of nickel chloride;

xi. Two 5 gallon containers of nickel additive;

xii. Two 5 gallon containers of nickel adjuster;

xiii. One 5 gallon container of chromium trioxide;

xiv. One 5 gallon container of sodium saccharin; and

xv. Approximately twenty fluorescent lamps containing mercury.

c. Outside of Building

i. Three 300 gallon containers of unknown dust, sludge and/or liquid; and

ii. Approximately twenty fluorescent lamps containing mercury.

5. There are two drains in the concrete located outside of the building which convey liquid into underground sumps. During the August 2016 inspection, there was unknown liquid and sludge in these sumps.

6. During the August 2016 inspection, the container of chromic oxide described in Section III, paragraph 4.b.viii was leaking and had spilled onto the floor in the storage room.

7. None of the substances listed in Section III, paragraph 4 above have been used since before November 2015.

IV. CONCLUSIONS OF LAW

Based upon the above-noted Findings of Fact, the Department concludes:

1. Respondent is a "person," as defined in ORS 465.200(21).

2. The items listed in Section III, paragraphs 4.b.viii and 4.b.xiii are "hazardous substances" as defined in ORS 465.200(16). Specifically, the substances are hazardous waste per 40 CFR 261.22 as EPA Waste No. D002 as each has a pH of 1.1 and have been abandoned.

3. The liquids described in Section III, paragraph 4.a.iv are "hazardous substances" as defined in ORS 465.200(16). Specifically, the substances are hazardous waste per 40 CFR 261.22 as EPA Waste No. D002 as each has a pH of 0 and have been abandoned.

4. The substance described in Section III, paragraph 4.b.iii is a "hazardous substance" as defined in ORS 465.200(16). Specifically, the substance is a hazardous waste per 40 CFR 261.33 as EPA Waste No. P115 and has been abandoned.

5. The lamps described in Section III, paragraphs 4.b.xv and 4.c.ii are "hazardous substances" as defined in ORS 465.200(16). Specifically, the lamps are a hazardous waste per 40 CFR 261.24 as EPA Waste No. D009 and have been abandoned.

6. The substances described in Section III, paragraphs 4.b.i, 4.b.ii, 4.b.iv, 4.b.vi, and 4.b.xi are "hazardous substances" as defined in ORS 465.200(16). Specifically, the substances are hazardous substances pursuant to section 101(14) of the federal Comprehensive Environmental Response, Compensation and Liability Act (42 CFR 9601).

7. The property is a "facility," as defined in ORS 465.200(13) because it is an area where hazardous substances have been deposited, stored, disposed of, or placed, and where a release has occurred or threat thereof, as alleged in Section III, paragraph 6.

8. Respondent is an "owner," as defined in ORS 465.200(20), as Respondent owns the facility.

9. The acts described in Section III, paragraphs 5 and 6 constitute a "release," including a threat thereof, as defined in ORS 465.200(22).

10. Respondent is strictly liable for removal or remedial actions necessary to protect the public health, safety and environment under ORS 465.255(1)(a) since Respondent was the owner during the time of the acts or omissions that resulted in the release or threat thereof.

11. Additionally, Respondent is strictly liable for removal or remedial actions under ORS 465.255(1)(b) since it became the owner of the facility after the time of the release or threat thereof, and who knew or reasonably should have known of the release when it first became the owner.

V. ORDER

Based upon the foregoing FINDINGS OF FACT AND CONCLUSIONS OF LAW, pursuant to ORS 465.260(4), Respondent is hereby ORDERED TO:

1. Notice of Intent to Comply

Respondent shall provide written notice to the Department, no later than 10 days after service of this Order, of Respondent's intent to comply with this Order.

2. General Provisions

A. DEQ Approval

i. Respondent shall not implement any plan or activity required under this Order, and shall not proceed with any other investigative or remedial activity concerning hazardous substances released to the environment both on and off the property, until the Department reviews and approves the activity in writing. Any reports, plans, specifications, schedules, or other deliverables required by the Order, upon approval by the Department, are incorporated into this Order.

ii. After review of any item required to be submitted for Department approval under this Order, the Department shall approve or disapprove the item in whole or in part and notify Respondent, in writing, of deficiencies and/or request modifications to cure the deficiencies.

iii. In the event of the Department's disapproval or request for modification of an item, Respondent shall correct the deficiencies and resubmit the revised item for approval within ten days of receipt of the Department notice or other such time as specified in the notice.

B. Access to Site

Respondent shall allow the Department to enter and move freely about the property at all reasonable times for the purposes of inspecting records relating to work under this Order; observing and documenting Respondent's progress in implementing this Order; conducting such tests and taking such samples as the Department deems necessary; verifying data submitted to the Department by Respondent; and, using camera, sound recording, or other equipment.

C. Project Manager

i. All reports, notices, and other communication required under or relating to this Order shall be directed to the following until otherwise specified: Dan Lobato, DEQ, 165 East 7th Avenue, Suite 100, Eugene OR 97401.

ii. Within 5 days of notification of intent to comply under Section V, paragraph 1 of this Order, Respondent shall provide the Department with written designation of a project manager for purposes of this Order.

D. Work to be Performed

i. Beginning immediately and for the duration of this Order, the materials listed in Section III, paragraph 4 must be managed so as to protect the public health and the environment and prevent further releases of any hazardous substances.

ii. Within 21 days of the date of service of this Order, Respondent must submit a written plan (the Plan), which may consist of but is not limited to a proposal from a professional environmental contractor(s), for characterizing all of the items listed in Section III, paragraph 4 and the contents of the sumps located outside the building. The Plan must also set forth the

method for transporting and disposing of all the items listed in Section III which meet the definition of a solid or hazardous waste.

iii. Within 30 days of the Department's approval under Section V, paragraph 2.A, Respondent must complete the work in the approved Plan. All the items listed in Section III, paragraphs 4 and 5 which are characterized as a hazardous waste (as defined in 40 C.F.R. 261.3, OAR 340-101-0033 and OAR 340-102-0011) must be transported in accordance with all applicable regulations and disposed of at a permitted hazardous waste treatment, storage or disposal (TSD) facility. The transportation and disposal of any of the substances listed in Section IV, paragraph 6 must be done in accordance with the regulations applicable to hazardous substances. Prior to disposing of any items listed in Section III, paragraph 4 and 5 to a location other than a TSD facility, Respondent must receive prior written Department approval.

iv. Within 30 days of completing the requirements under Section V, paragraph 2.D.iii, Respondent must submit to the Department all hazardous waste manifests documenting the removal and transport of the hazardous wastes to a permitted TSD facility and documentation of any other items disposed of at other locations.

E. Satisfaction of Order

Upon completion of work under this Order, Respondent shall submit to the Department a written notice of completion. This Order shall be deemed satisfied and terminated upon the Department's written confirmation of completion of requirements in this Order.

V. FAILURE TO COMPLY

1. Pursuant to ORS 465.260(5) and ORS 465.900, upon Respondent's failure to comply with this Order, the Department may seek any available remedy to enforce this Order, including but not limited to civil penalties and injunctive relief.

2. Pursuant to ORS 465.260(8), upon Respondent's failure to comply with this Order, Respondent may be held liable for any costs incurred by the State of Oregon in conducting the work required under this Order and for punitive damages of up to three times the amount of the state's costs.

3. Pursuant to ORS 465.260(6), Respondent may not seek an administrative appeal or judicial review of this Order.

IT IS SO ORDERED:

8/30/16
Date

Leah K. Feldon, Manager
Office of Compliance and Enforcement

BEFORE THE ENVIRONMENTAL QUALITY COMMISSION OF THE STATE OF OREGON

In the Matter of: General Property Group LLC,

Respondent(s),

Case No.: LQ/HW-WR-2016-134

AFFIDAVIT OF SERVICE

I hereby certify that I am a competent person 18 years of age or older and a resident of the State of Oregon and not a party to nor an officer, director, or employee of, nor attorney for any party, corporate or otherwise; and know that the person, firm, or corporation served is the identical one named in the action.

I further certify that I made service of **Letter dated August 30, 2016 Re: Remedial Action Order; Remedial Action Order** as follows:

POSTED SERVICE

Upon **General Property Group LLC,** by posting a true copy in a secure manner at **15800 SW Boones Ferry Rd #A3, Lake Oswego, OR 97035** on **September 16, 2016** at **12:12 PM.**

Gabe Schomus

STATE OF OREGON, County of Washington.

Signed or attested before me by Gabe Schomus on the 16th day of September, 2016.

NOTARY PUBLIC - OREGON

OFFICIAL SEAL
LISA M CARTER
NOTARY PUBLIC - OREGON
COMMISSION NO. 478953
MY COMMISSION EXPIRES JUNE 17, 2017

Job #: 5651

Interstate Process Serving * 11575 SW Pacific Hwy Ste 220, Portland, OR 97225 * 503-452-7179

Oregon
Kate Brown, Governor

Department of Environmental Quality
Western Region Eugene Office
165 East 7th Avenue, Suite 100
Eugene, OR 97401
(541) 686-7838
FAX (541) 686-7551
TTY 711

CERTIFIED MAIL
Return Receipt Requested
7015 0650 0002 0490 1052
September 30, 2016

KEVIN CURTIN, PRESIDENT
GENERAL PROPERTY GROUP, LLC
P.O. BOX 8158
MEDFORD, OREGON 97501

RE: Pre-Enforcement Notice
702 S. Grape Street, Medford, OR (formerly Medford Plating
2016-PEN-1856
ORD987201480
Jackson County

Dear Mr. Curtin:

On August 9, 2016, the Oregon Department of Environmental Quality conducted a hazardous waste complaint investigation at the building formerly known as "Medford Plating" located at 702 S. Grape Street in Medford, Oregon to determine compliance with the applicable state and federal regulations. The investigation verified that the new owner of the Medford Plating building is a large quantity generator of hazardous waste, based on not complying with the reduced requirements of a conditionally exempt or small quantity generator of hazardous waste.

The purpose of this letter is to inform you of violations and concerns found during the complaint investigation so that you can correct them. Based on the results of this complaint investigation, DEQ determined that the owner of the facility located at 702 S. Grape Street, Medford, Oregon is responsible for the following violations of Oregon environmental law.

VIOLATIONS
Class I violations are considered to be the most serious violations; Class III violations are the least serious.

Violation 1:

General Property Group, LLC failed to make a complete and accurate hazardous waste determination on a residue in violation of Oregon Administrative Rule (OAR) 340-102-0011. This is a **Class I** violation as identified in OAR 340-012-0068(1)(a).

EXHIBIT
All 3 pages

General Property Group, LLC did not make hazardous waste determinations on fourteen manufacturing process units (MPUs), containing plating solution/sludge, used in the metal plating process that were temporarily or permanently removed from service for 90 days. The new owner took possession of the 702 S. Grape Street, Medford, Oregon building in November 2015, greater than 240 days since the MPUs were removed from service. (See photos 12, 15, 16, 17, 21, 22, 25, 26, 27 and 30) An inventory of containers and MPU's is also attached. In addition, Medford Plating did not make hazardous waste determinations on two small (<15 gallon) containers of spent plating solution filters, (see photos 23, 24 and 25), a 55-gallon container storing polishing room dust (see photo 8) and twenty other various sized (1-55 gallon) containers of chemicals found in the chemical storage room. (see photos 34-38, 42-49, 51, 55 and 57)(Also see investigation memo dated August 16, 2016)

Violation 2:

General Property Group, LLC did not immediately clean up a release of a hazardous substance in violation of OAR 340-142-0030(3). This is a **Class I** violation pursuant to OAR 340-012-0068(1)(r).

General Property Group, LLC did not immediately clean up the release from a 5 gallon container of chromic oxide. (see investigation memo dated August 16, 2016, photos 52, 54, 55, 56 and 57)

Violation 3:

General Property Group, LLC accumulated hazardous waste in MPUs for over 240 days in violation of 40 CFR 262.34(a). This is a **Class II** violation pursuant to OAR 340-012-0068(2)(d).

A MPU (the tanks/vats in the plating room) that is temporarily or permanently taken out of service in excess of 90 days, must comply with 40 CFR 262.34(a). The fourteen MPU's in the building were not compliant with 40 CFR 262.34(a). (see investigation memo dated August 16, 2016, and photos 12, 15, 16, 17, 21, 22, 25, 26, 27 and 30).

Additional Concerns:

Be advised that once General Property Group, LLC has completed the corrective actions below and has properly disposed of all hazardous waste, General Property Group, LLC, must file a report to the Department by March 2017 and pay generation fees on those hazardous wastes disposed of during the calendar year 2016 pursuant to OAR 340-102-0041.

REQUIRED CORRECTIVE ACTIONS:

1. Immediately take actions to clean up and properly dispose of the released material identified in Violation 2;

2. Perform hazardous waste determinations on all residues that cannot be sold or reused, (be advised that the Department shall require receipts for all products sold or given away to ensure legitimate reuse); and,

3. Properly dispose of all hazardous waste identified by Corrective Action 2.

Required Response
Please respond to DEQ in writing by October 30, 2016, unless otherwise specified. In your response, describe the measures taken to correct the violations identified and actions taken or proposed to prevent the violations from recurring.

Your response should include; sample results for all wastes, manifests for all hazardous wastes sent off-site for disposal and receipts for all products that are sold.

DEQ will take into account your timely and responsive action on these items in any civil penalty assessment.

Violations 1, 2 and 3 cited above posed the risk of significant environmental harm, and DEQ is referring these violations to DEQ's Office of Compliance and Enforcement for formal enforcement action, which may include assessment of civil penalties or issuance of a DEQ order. DEQ may assess a civil penalty for each day of violation.

If you believe any of the facts in this pre-enforcement notice are in error, you may provide information to me at lobato.dan@deq.state.or.us or to the address identified at the top of this letter. DEQ will consider new information you submit and take appropriate action.

If you have any questions about the content of this letter, please feel free to contact me at the above email address or by phone at 541-686-7998.

Sincerely,

Dan Lobato
Compliance Inspector
Hazardous Waste Program

Cc: Robert Corliss, City of Medford Wastewater **1100 Kirtland Road,** Central Point, OR 97502
Office of Compliance and Enforcement, DEQ Headquarters

Enclosure(s) Investigation Memo, Photolog, Inventory and Plating Room map

ELWORTH Susan

From: ELWORTH Susan
Sent: Friday, September 30, 2016 12:25 PM
To: 'rscottp@whhsmaf.com'; 'opropc@hotmail.com'
Cc: LOBATO Dan
Subject: 702 S Grape Street Remedial Action Order

Gentlemen – Thank you for the updates your provided in your emails on September 23rd and 28th. I thought it would prove helpful to outline the requirements in the Order and the dates certain documentation is required to be submitted to DEQ. If any of these dates are unworkable, please contact Dan Lobato as soon as possible so that DEQ can provide a formal extension of the compliance date, if appropriate.

Since service of the Order was perfected on September 16, 2016, each of the compliance dates contained in Section V will run from that date.

1. Section V, paragraph 1 requires you to provide DEQ with notice that you intend to comply with the Order prior to **September 26, 2016**. This item was received on September 23, 2016.
2. Section V, paragraph 2.C requires you to provide DEQ with notice of the project manager prior to **October 1, 2016**. I am assuming that is Mr. Pieper. If not, please let me know who DEQ should be corresponding with in regards to the Order.
3. Section V, paragraph 2.D.ii requires you to provide to DEQ prior to **October 7, 2016** a plan which addresses the following:
   - Actions which will be taken to characterize all of the items at the facility listed in Section III, paragraph 4 including the liquid in the sumps outside the building; and
   - Actions which will be taken to transport and dispose of all the solid and hazardous waste at the facility.

   As of this date, DEQ has received an inventory and sample results for the items located inside the building and Mr. Pieper's email from September 28th includes information on how further characterization of those items will be completed. Note that DEQ has yet to receive a plan for how the liquids in the sumps will be characterized.
4. Section V, paragraph 2.D.iii requires you to implement the plan submitted under Section V, paragraph 2.D.ii within 30 days after DEQ approves that plan.

If you have any questions regarding the work required under the Order, please contact Dan Lobato directly at 5416867998. Otherwise feel free to contact me with any questions.

Susan M. Elworth, JD
Department of Environmental Quality
(503) 229-5152

This November, DEQ's Headquarters Office will be moving to a new location - the 700 Lloyd Building at 700 NE Multnomah St., Suite #600, Portland, OR 97232. The target date for operating at the new location is November 7th, 2016



ELWORTH Susan

From: ELWORTH Susan
Sent: Thursday, October 6, 2016 3:51 PM
To: 'LOBATO Dan'; 'Scott Pieper'
Cc: patricia_curtin@hotmail.com; opropc@hotmail.com
Subject: RE: 702 S Grape Street Remedial Action Order
Attachments: 201610061522.pdf

All – Attached is the letter allowing an extension until October 28, 2016. Thank you - Susan

---

From: LOBATO Dan [mailto:dan.lobato@state.or.us]
Sent: Thursday, October 06, 2016 1:33 PM
To: 'Scott Pieper'; LOBATO Dan
Cc: patricia_curtin@hotmail.com; opropc@hotmail.com; ELWORTH Susan
Subject: RE: 702 S Grape Street Remedial Action Order

Hi Scott,

I have approved the extension to the 28th of October, 2016. I have talked to the Office of Compliance and Enforcement and they will be drafting the extension letter to be signed by the Compliance Manager today (because it is a compliance date in a Department Order).

I agree with your proposal of what analytes to test the sumps for. That should cover the sumps.

Thanks for your attention to the compliance dates as violating the order could lead to additional civil penalties that can be avoided.

If you have any questions, don't hesitate to call or email me.

Thanks again.

Dan Lobato
Compliance Specialist
Western Region Hazardous Waste Program
165 East 7th Ave., Suite 100, Eugene, OR 97401
541-686-7998 (direct line)
541-686-7551 (fax)
lobato.dan@deq.state.or.us

From: Scott Pieper [mailto:rscottp@whhsmaf.com]
Sent: Thursday, October 06, 2016 10:25 AM
To: LOBATO Dan
Cc: patricia_curtin@hotmail.com; opropc@hotmail.com; ELWORTH Susan
Subject: RE: 702 S Grape Street Remedial Action Order

Mr Lobato,



Thank you for forwarding me the order. I believe we will have the remedial action plan ready by the end of next week. In order to be sure, I request an extension for submittal of the plan to October 28th. Testing the sumps was not previously on my list. I will need to test the sumps to determine what actions, if any, are necessary.

Given the findings of the previous lab results, I propose we sample the sumps and test for the following:

- pH
- RCRA-8 Metals, plus zinc and nickel

Do you require any further analyses?

Regards,

> On October 6, 2016 at 9:35 AM LOBATO Dan <dan.lobato@state.or.us> wrote:
>
> Scott, I will be doing the extension request, we can do through email, however, written is preferred. Let me know how much of an extension you need and I will respond.
>
> I have attached a copy of the order.
>
> *Dan Lobato*
>
> Compliance Specialist
>
> Western Region Hazardous Waste Program
>
> 165 East 7th Ave., Suite 100, Eugene, OR 97401
>
> 541-686-7998 (direct line)
>
> 541-686-7551 (fax)
>
> lobato.dan@deq.state.or.us

From: Scott Pieper [mailto:rscottp@whhsmaf.com]
Sent: Wednesday, October 05, 2016 3:57 PM
To: ELWORTH Susan
Cc: LOBATO Dan; opropc@hotmail.com
Subject: Re: 702 S Grape Street Remedial Action Order

Hi Susan,

I am working with the disposal company, NRC, to come up with a work plan. I hope to have this complete next week. Therefore, I am requesting an extension to the October 7 deadline, since I was unaware of this deadline until I received your e-mail.

Would you provide me with a copy of the order, so I can make sure we are helping our client with compliance?

Thank you,

> On September 30, 2016 at 12:25 PM ELWORTH Susan <susan.elworth@state.or.us> wrote:
>
> Gentlemen – Thank you for the updates your provided in your emails on September 23rd and 28th. I thought it would prove helpful to outline the requirements in the Order and the dates certain documentation is required to be submitted to DEQ. If any of these dates are unworkable, please contact Dan Lobato as soon as possible so that DEQ can provide a formal extension of the compliance date, if appropriate.
>
> Since service of the Order was perfected on September 16, 2016, each of the compliance dates contained in Section V will run from that date.

1. Section V, paragraph 1 requires you to provide DEQ with notice that you intend to comply with the Order prior to **September 26, 2016**. This item was received on September 23, 2016.

2. Section V, paragraph 2.C requires you to provide DEQ with notice of the project manager prior to **October 1, 2016**. I am assuming that is Mr. Pieper. If not, please let me know who DEQ should be corresponding with in regards to the Order.

3. Section V, paragraph 2.D.ii requires you to provide to DEQ prior to **October 7, 2016** a plan which addresses the following:

   - Actions which will be taken to characterize all of the items at the facility listed in Section III, paragraph 4 including the liquid in the sumps outside the building; and

   - Actions which will be taken to transport and dispose of all the solid and hazardous waste at the facility.

   As of this date, DEQ has received an inventory and sample results for the items located inside the building and Mr. Pieper's email from September

 28th includes information on how further characterization of those items will be completed. Note that DEQ has yet to receive a plan for how the liquids in the sumps will be characterized.

4. Section V, paragraph 2.D.iii requires you to implement the plan submitted under Section V, paragraph 2.D.ii within 30 days after DEQ approves that plan.

If you have any questions regarding the work required under the Order, please contact Dan Lobato directly at 5416867998. Otherwise feel free to contact me with any questions.

Susan M. Elworth, JD

Department of Environmental Quality

(503) 229-5152

This November, DEQ's Headquarters Office will be moving to a new location - the 700 Lloyd Building at 700 NE Multnomah St., Suite #600, Portland, OR 97232. The target date for operating at the new location is November 7th, 2016

Oregon
Kate Brown, Governor

Department of Environmental Quality
Headquarters
811 SW 6th Ave
Portland, OR 97204-1390
(503) 229-5696
FAX (503) 229-6124
TTY: 711

October 6, 2016

General Property Management, LLC
Kevin J. Curtin, Registered Agent
15800 SW Boones Ferry Road, Suite A-3
Lake Oswego, OR 97035

RE: Remedial Action Order
Case no. LQ/HW-WR-2016-134

Dear Mr. Curtin:

On September 16, 2016, General Property Management was served with a Remedial Action Order that requires it to provide to DEQ prior to October 7, 2016 a plan which addresses the following:

- Actions which will be taken to characterize all of the items at the facility listed in Section III, paragraph 4 of the Order; and
- Actions which will be taken to transport and dispose of all identified solid and hazardous waste.

Yesterday, DEQ received a request for an extension to comply with those requirements. DEQ, by this letter, hereby amends Section V, paragraph 2.D.ii of the Order by extending that deadline until the close of business on October 28, 2016.

If you have any questions concerning compliance under the Order, please contact Dan Lobato at 5416867998.

Sincerely,

Sarah G. Wheeler, Acting Manager
Office of Compliance and Enforcement

cc: Scott Pieper, SMAF Environmental, 2260 NW Industrial Park Rd, Prineville OR 97754

Oregon
Kate Brown, Governor

Department of Environmental Quality
Headquarters
811 SW 6th Ave
Portland, OR 97204-1390
(503) 229-5696
FAX (503) 229-6124
TTY: 711

November 1, 2016

General Property Management LLC
Kevin J. Curtin, Registered Agent
15800 SW Boones Ferry Road, Suite A-3
Lake Oswego OR 97035

RE: Remedial Action Order
Case no. LQ/HW-WR-2016-134
OAH Case no. 1604597

Dear Mr. Curtin:

On October 27, 2016, DEQ approved a plan for the disposal of the waste located at your property at 702 S. Grape Street in Medford. Per Section V, parargraph 2.D.iii of the Remedial Action Order, the work outlined in the approved plan must be completed within 30 days of that approval. Once the disposal is completed, you are also required to submit to DEQ manifests documenting the transportation and disposal of all hazardous waste and documentation of the disposal of any other items. Please submit that documentation to: Dan Lobato, DEQ, 165 East 7th Avenue, Suite 100, Eugene OR 97401.

If you have any questions concerning compliance under the Remedial Action Order, please contact Dan at 541-686-7998.

Sincerely,

Susan M. Elworth
Environmental Law Specialist

Cc: Scott Pieper, SMAF Environmental, 2260 NW Industrial Park Road, Prineville, OR 97754
Dan Lobato, DEQ Eugene office

EXHIBIT
Tabbies
A14 1page

ELWORTH Susan

From: LOBATO Dan
Sent: Tuesday, November 8, 2016 7:33 AM
To: 'Scott Pieper'
Cc: ELWORTH Susan; FULLER Brian
Subject: RE: Medford Plating removal

Mr. Pieper, in consideration of your request to extend the disposal compliance date found in Remedial Action Order No. LQ/HW-WR-2016-134, the Department believes an extension to December 9, 2016 due to potential scheduling conflicts is reasonable and therefore approves your request. The new compliance date for completion of the disposal activities at 702 S. Grape Street in Medford, Oregon is December 9, 2016.

Dan Lobato
Compliance Specialist
Western Region Hazardous Waste Program
165 East 7th Ave., Suite 100, Eugene, OR 97401
541-686-7998 (direct line)
541-686-7551 (fax)
lobato.dan@deq.state.or.us

From: Scott Pieper [mailto:rscottp@whhsmaf.com]
Sent: Monday, November 07, 2016 7:01 AM
To: LOBATO Dan
Subject: Re: Medford Plating removal

Mr. Lobato,

As a follow-up, NRC is not available until Nov 28th. Therefore, an extension is necessary so our client does not suffer for our scheduling difficulties.

Thank you,

> On November 4, 2016 at 1:42 PM Scott Pieper <rscottp@whhsmaf.com> wrote:
>
> Mr. Lobato,
>
> Our primary disposal vendor, NRC, is concerned that we have a short week before the 26th due to Thanksgiving. They are quite busy, as are we. Therefore, I would like to request a 2 week extension to December 9th to make sure we can comply with the order.
>
> We plan to have this completed this month, but the extension will allow us some room if logistics are problematic.
>
> Regards,



R. Scott Pieper, R.G.

Environmental Services Manager

SMAF Environmental LLC

2260 NW Industrial Park Road

Prineville, OR 97754

(800) 875-7069 24-hour Spill Response Hotline

(541) 447-5643 Office

(541) 233-7830 Mobile

ELWORTH Susan

From: LOBATO Dan
Sent: Thursday, March 30, 2017 7:40 AM
To: ELWORTH Susan
Subject: FW: 702 S Grape St Manifests
Attachments: Manifest_Tracking (702 S Grape St)1.pdf

Hi Susan, I forgot to forward this when I got it. I haven't had time to look at it yet. Will soon and get back to you.

Dan

From: OH Co [mailto:opropc@hotmail.com]
Sent: Friday, March 24, 2017 6:32 PM
To: LOBATO Dan <dan.lobato@state.or.us>
Subject: 702 S Grape St Manifests

Hello,

Attached is the manifest tracking summary from Clean Harbors. Thank you.



Run Date: 3/16/2017

Manifest Tracking Report

Manifests generated from 2/1/2016 through 3/16/2017

Mnfst No	Generator EPA Id	Generator Code	Job Site Address	Sales Order	Tran 1	Mnfstd Facility Name	Gen Sign Date	Mnfstd Facility Recd Date	Mnfst Return Days	Weight Ticket
009996389FLE	CESQG	ME33097	702 S Grape st Medford, OR 97501	1700123396-001	Clean Harbors Environmental Service, Inc.	Clean Harbors Aragonite LLC	1/11/2017	1/31/2017		
010466154FLE	CESQG	ME33097	702 S Grape st Medford, OR 97501	1700123396-001	Clean Harbors Environmental Service, Inc.	Clean Harbors Aragonite LLC	2/15/2017	3/9/2017		
010466155FLE	CESQG	ME33097	702 S Grape st Medford, OR 97501	1700123396-001	Tri State Motor Transit	Clean Harbors Arizona LLC	2/15/2017	3/2/2017	19	
W170792997	CESQG	ME33097	702 S Grape st Medford, OR 97501	1700494230-003	Clean Harbors Environmental Service, Inc.	WM-Hillsboro Landfill	2/8/2017	2/9/2017		
010466150FLE	CESQG	ME33097	702 S Grape st Medford, OR 97501	1700123396-002	Clean Harbors Environmental Service, Inc.	Clean Harbors Grassy Mountain LLC	2/15/2017	3/1/2017	16	
010466151FLE	CESQG	ME33097	702 S Grape st Medford, OR 97501	1700123396-002	Tri State Motor Transit	Clean Harbors Environmental Service, Inc.	2/15/2017	3/9/2017	22	
010466152FLE	CESQG	ME33097	702 S Grape st Medford, OR 97501	1700123396-002	Tri State Motor Transit	Clean Harbors Arizona LLC	2/15/2017	3/10/2017		
010466157FLE	CESQG	ME33097	702 S Grape st Medford, OR 97501	1700123396-003	Clean Harbors Environmental Service, Inc.	Clean Harbors Grassy Mountain LLC	2/15/2017	3/6/2017	22	
010466158FLE	CESQG	ME33097	702 S Grape st Medford, OR 97501	1700123396-003	Tri State Motor Transit	Clean Harbors Arizona LLC	2/15/2017	3/2/2017	20	

1-12

Please print or type. (Form designed for use on elite (12-pitch) typewriter.) OR 1700123396-001 SC PPW 1/4/2017 Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST	1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Manifest Tracking Number
	CESOG	2	(800) 483-3718	009996389 FLE

GENERATOR

5. Generator's Name and Mailing Address
Medford Plating
702 S Grape st
Medford, OR 97501
Generator's Phone: (541) 292-0420

Generator's Site Address (if different than mailing address)
SAME

6. Transporter 1 Company Name
Clean Harbors Environmental Service, Inc.
U.S. EPA ID Number
MAD039322250

7. Transporter 2 Company Name
Safety Kleen Systems Inc
U.S. EPA ID Number
TXR000081705

8. Designated Facility Name and Site Address
Clean Harbors Aragonite LLC
11600 North Aptus Road
Grantsville, UT 84029
Facility's Phone: (425) 881-8100
U.S. EPA ID Number
UTD981552177

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
X	1. UN1362, WASTE CARBON, ACTIVATED, 4.2, PG III	001	CF	00062	P	D001
X	2. UN1444, WASTE AMMONIUM PERSULFATE, 5.1, PG III	001	DF	00003	P	D001
X	3. UN2922, WASTE CORROSIVE LIQUIDS, TOXIC, N.O.S., (SULFURIC ACID, CHROMIUM TRIOXIDE), 8, (6.1), PG II	001	DF	00158	P	D002 D004 D005 D006 D007 D008
X	4. UN2922, WASTE CORROSIVE LIQUIDS, TOXIC, N.O.S., (AMMONIUM HYDROXIDE, SODIUM HYDROXIDE), 8, (6.1), PG II	001	DF	00070	P	D002 D004 D005 D006 D007 D008

14. Special Handling Instructions and Additional Information
1. LCCRD ERG#133 1X55
2. LCCRO ERG#140 1X5
3. LCCRA ERG#154 1X55
4. LCCRB ERG#154 1X55

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Dennis Carroll on behalf of General Property Group
Signature:
Month: 01 Day: 11 Year: 17

INT'L

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Materials
Transporter 1 Printed/Typed Name: ~~Tyler Anderson~~ Mike Mason
Signature:
Month: 1 Day: 11 Year: 17
Transporter 2 Printed/Typed Name: Tyler Anderson
Signature:
Month: 1 Day: 12 Year: 17

DESIGNATED FACILITY

18. Discrepancy
18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
Manifest Reference Number:
18b. Alternate Facility (or Generator) U.S. EPA ID Number
Facility's Phone:
18c. Signature of Alternate Facility (or Generator) Month: Day: Year:

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1.	2.	3.	4.
H040	H040	H040	H040

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a
Printed/Typed Name:
Signature:
Month: 1 Day: 13 Year: 17

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete.

DESIGNATED FACILITY TO DESTINATION STATE (IF REQUIRED)
Clean Harbors has the appropriate permits for and will accept the waste the generator is shipping.

Please print or type. (Form designed for use on elite (12-pitch) typewriter.) SI1700123396-001 SC PPW 1/4/2017 Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST (Continuation Sheet)

21. Generator ID Number: CESOG

22. Page: 2 of 2

23. Manifest Tracking Number: 008996389FLE

24. Generator's Name: Medford Plating

25. Transporter 3 Company Name: TSMT — U.S. EPA ID Number: MOD095038998

26. Transporter 4 Company Name: CHES — U.S. EPA ID Number: MAD039322250

27a. HM	27b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	28. Containers No.	28. Containers Type	29. Total Quantity	30. Unit Wt./Vol.	31. Waste Codes
X	5. UN3082. WASTE ENVIRONMENTALLY HAZARDOUS SUBSTANCES. LIQUID. N.O.S.. (NICKEL CHLORIDE). 9. PG III	001	CF	00036	P	
	6. NON D.O.T. REGULATED. (FLOOR FINISH, SEALERS)	003	CF	00459	P	

32. Special Handling Instructions and Additional Information
6. LCCRC ERG#171 1X30
6. LCCRN 3X55

TRANSPORTER

33. Transporter 3 Acknowledgment of Receipt of Materials
Printed/Typed Name: Patrick Seward — Signature: PJS — Month 1 Day 20 Year 17

34. Transporter 4 Acknowledgment of Receipt of Materials
Printed/Typed Name: Riley Baldwin — Signature: [signature] — Month 1 Day 23 Year 17

DESIGNATED FACILITY

35. Discrepancy

36. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)
6. H040 | 6. H040

DESIGNATED FACILITY TO DESTINATION STATE (IF REQUIRED)

EPA Form 8700-22A (Rev. 3-05) Previous editions are obsolete.

Clean Harbors has the appropriate permits for and will accept the waste the generator is shipping.

Clean Harbors
ENVIRONMENTAL SERVICES

Land Disposal Restriction Notification Form

Printed Date :Jan 11, 2017

MANIFEST INFORMATION

Generator : Medford Plating

Address: 702 S Grape st
Medford,OR 97501

EPA ID #: C E S Q G

Manifest Tracking Info.

009996399FLE

Sales Order No: 1700123396-001

Clean Harbors
ENVIRONMENTAL SERVICES

Land Disposal Restriction Notification Form

Printed Date : Jan 11, 2017

LINE ITEM INFORMATION

Line Item:	Page No:	Profile No:	Treatability Group:	LDR Disposal Category
1.	1	LCCRD	NON-WASTEWATER	11 (Labpack Alternate Standard)

EPA Waste Code	EPA Waste SubCategory
D001	Ignitables, except High TOC Liquids

LINE ITEM INFORMATION

Line Item:	Page No:	Profile No:	Treatability Group:	LDR Disposal Category
2.	1	LCCRO	NON-WASTEWATER	11 (Labpack Alternate Standard)

EPA Waste Code	EPA Waste SubCategory
D001	Ignitables, except High TOC Liquids

LINE ITEM INFORMATION

Line Item:	Page No:	Profile No:	Treatability Group:	LDR Disposal Category
3.	1	LCCRA	NON-WASTEWATER	11 (Labpack Alternate Standard)

EPA Waste Code	EPA Waste SubCategory
D002	Corrosive Characteristic
D004	Toxicity Characteristic for Arsenic
D005	Toxicity Characteristic for Barium
D006	Toxicity characteristic for Cadmium
D007	Toxicity Characteristic for Chromium
D008	Toxicity Characteristic for Lead
D011	Toxicity Characteristic for Silver

LINE ITEM INFORMATION

Line Item:	Page No:	Profile No:	Treatability Group:	LDR Disposal Category
4.	1	LCCRB	NON-WASTEWATER	11 (Labpack Alternate Standard)

EPA Waste Code	EPA Waste SubCategory
D002	Corrosive Characteristic
D004	Toxicity Characteristic for Arsenic
D005	Toxicity Characteristic for Barium
D006	Toxicity characteristic for Cadmium
D007	Toxicity Characteristic for Chromium
D008	Toxicity Characteristic for Lead
D011	Toxicity Characteristic for Silver

Land Disposal Restriction
Notification Form

Printed Date : Jan 11, 2017

Certification	Applies to Manifest Line Items
This labpack is subject to the treatment standards specified in 40 CFR 268 Subpart D. I certify under penalty of law that I personally have examined and am familiar with the waste and that the lab pack contains only wastes that have not been excluded under appendix IV to 40 CFR part 268 and that this lab pack will be sent to a combustion facility in compliance with the alternative treatment standards for lab packs at 40 CFR 268.42(c). I am aware that there are significant penalties for submitting a false certification, including the possibility of fine or imprisonment.	1. 2. 3. 4.
This waste is not restricted as specified in 40 CFR 268 Subpart D.	5. 6.

Waste analysis data, where available, is attached.

Signature : [signature] Print Name Dennis Carroll On Behalf of General property Group

Title : none Date : 01.11.17

Clean Harbors Manifest Addendum

Generator ID Number:		Sales Order Number:
C E S Q G	009996389FLE	1700123398-001

Medford Plating
702 S Grape st
Medford, OR97501

Line #	Profile No:	Profile Description:		Waste Codes:
3.	LCCRA			D011
		CH Container #	Customer Container #	
4.	LCCRB			D011
		CH Container #	Customer Container #	

2/4 0206413

Please print or type. (Form designed for use on elite (12-pitch) typewriter.) SI 1700123396-001 SC PPW 1/4/2017

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST	1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Manifest Tracking Number
	CESQG	1	(800) 483-3718	010466154 FLE

GENERATOR

5. Generator's Name and Mailing Address
Medford Plating
702 S Grape st
Medford, OR 97501
Generator's Phone: (541) 292-0433

Generator's Site Address (if different than mailing address)
SAME

6. Transporter 1 Company Name
Clean Harbors Environmental Service, Inc.
U.S. EPA ID Number
MAD039322250

7. Transporter 2 Company Name
Safety Kleen Systems Inc
U.S. EPA ID Number
TXR000081205

8. Designated Facility Name and Site Address
Clean Harbors Aragonite LLC
11600 North Aptus Road
Grantsville, UT 84029
Facility's Phone: (435) 884-8100
U.S. EPA ID Number
UTD981552177

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
	1. NON DOT REGULATED, (NICKEL SULFATE SOLUTION)	004	DF	01112	P	
	2.					
	3.					
	4.					

14. Special Handling Instructions and Additional Information
1.CH1359410 4X55

15. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: on behalf of GP6 Dennis Carroll
Signature:
Month Day Year: 02 15 17

INT'L

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Materials
Transporter 1 Printed/Typed Name: Mike Mason
Signature:
Month Day Year: 2 15 17
Transporter 2 Printed/Typed Name: Martin Skoien
Signature:
Month Day Year: 02 16 17

DESIGNATED FACILITY

18. Discrepancy
18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
18b. Alternate Facility (or Generator) Manifest Reference Number:
U.S. EPA ID Number
Facility's Phone:
18c. Signature of Alternate Facility (or Generator)
Month Day Year:

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1.	2.	3.	4.
H141			

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a
Printed/Typed Name: William Beaty
Signature:
Month Day Year: 3 6 17

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete.

DESIGNATED FACILITY TO DESTINATION STATE (IF REQUIRED)
Clean Harbors has the appropriate permits for and will accept the waste the generator is shipping.

Please print or type. (Form designed for use on elite (12-pitch) typewriter.) Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST (Continuation Sheet)

21. Generator ID Number: CESQG | 22. Page: 2/2 | 23. Manifest Tracking Number: 010466154 FLE

24. Generator's Name: Medford Plating

25. Transporter 3 Company Name: TSMT | U.S. EPA ID Number: MOD095038998

26. Transporter 4 Company Name: CITES | U.S. EPA ID Number: MAD039322250

GENERATOR

27a. HM	27b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	28. Containers No.	28. Containers Type	29. Total Quantity	30. Unit Wt./Vol.	31. Waste Codes

32. Special Handling Instructions and Additional Information

TRANSPORTER

33. Transporter 3 Acknowledgment of Receipt of Materials
Printed/Typed Name: Rosa Bates | Signature: Rosa Bates | Month 12 Day 20 Year 17

34. Transporter 4 Acknowledgment of Receipt of Materials
Printed/Typed Name: Brian Boyd | Signature: [signature] | Month 04 Day 21 Year 17

DESIGNATED FACILITY

35. Discrepancy

36. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

EPA Form 8700-22A (Rev. 3-05) Previous editions are obsolete. DESIGNATED FACILITY TO DESTINATION STATE (IF REQUIRED)

Please print or type. (Form designed for use on elite (12-pitch) typewriter.) 3 1700128398-001 SC PPW 2/4/2017 Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST	1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Manifest Tracking Number
	OESOS	1	(800) 468-3716	010466155 FLE

5. Generator's Name and Mailing Address
Medford Plating
702 S Grape st
Medford, OR 97501
Generator's Phone: (541) 292-0438

Generator's Site Address (if different than mailing address)
SAME

6. Transporter 1 Company Name — U.S. EPA ID Number
Clean Harbors Environmental Service, Inc — MAD039932960 — CR ✓

7. Transporter 2 Company Name — U.S. EPA ID Number
Safety Kleen Systems INC — TXR000081205 — FS ✓

8. Designated Facility Name and Site Address — U.S. EPA ID Number
Clean Harbors Arizona LLC
1340 West Lincoln Street
Phoenix AZ 85007
Facility's Phone: (602) 252-6155
AZD049318009 — OFFC

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt/Vol.	13. Waste Codes
X	1. UN1789, WASTE HYDROCHLORIC ACID SOLUTION, 8, PG II	003	DF	00665	P	D002
X	2. UN1789, WASTE HYDROCHLORIC ACID SOLUTION, 8, PG II	001	DM	00050	P	D002
	3.					
	4.					

GENERATOR

14. Special Handling Instructions and Additional Information
1.CH1859408 ERG#157 2X55, 1X16
2.CH1859408 ERG#157 1X85 (1 x 55 open top OP in 85 DM)

15. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: on behalf of GPG Dennis Carroll — Signature: [signature] on behalf of GPG — Month 02 Day 15 Year 17

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

17. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: Mike Mason — Signature: [signature] — Month 2 Day 15 Year 17

Transporter 2 Printed/Typed Name: Martin Skolew — Signature: [signature] — Month 02 Day 16 Year 17

18. Discrepancy

18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

18b. Alternate Facility (or Generator) — U.S. EPA ID Number
Facility's Phone:

18c. Signature of Alternate Facility (or Generator) — Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1.	2.	3.	4.
H141	H141		

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a

Printed/Typed Name: Ahmet Mamut — Signature: [signature] — Month 03 Day 2 Year 17

Form 8700-22 (Rev. 3-05) Previous editions are obsolete. DESIGNATED FACILITY TO DESTINATION STATE (IF REQUIRED)

Clean Harbors has the appropriate permits for and will accept the waste the generator is shipping.

Please print or type. (Form designed for use on elite (12-pitch) typewriter.) Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST (Continuation Sheet)

21. Generator ID Number: CESQG | 22. Page: 8/2 | 23. Manifest Tracking Number: 010466155 FLE

24. Generator's Name: Medford Plating

25. Transporter 3 Company Name: TSMT | U.S. EPA ID Number: MED045038998

26. Transporter 4 Company Name: CLEAN | U.S. EPA ID Number: MAD039377250

GENERATOR

27a. HM	27b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	28. Containers No.	28. Containers Type	29. Total Quantity	30. Unit Wt./Vol.	31. Waste Codes

32. Special Handling Instructions and Additional Information

33. Transporter 3 Acknowledgment of Receipt of Materials
Printed/Typed Name: Rosa Bates | Signature: [signature] | Month: 12 Day: 20 Year: 17

34. Transporter 4 Acknowledgment of Receipt of Materials
Printed/Typed Name: Brian Boyd | Signature: [signature] | Month: 12 Day: 21 Year: 17

35. Discrepancy

36. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

Form 8700-22A (Rev. 3-05) Previous editions are obsolete. DESIGNATED FACILITY TO DESTINATION STATE (IF REQUIRED)

Please print or type. (Form designed for use on elite (12-pitch) typewriter.) Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST (Continuation Sheet)

21. Generator ID Number: Ces Q6 | 22. Page: 3 | 23. Manifest Tracking Number: 010466455 FLE

24. Generator's Name: Medford Plating

25. Transporter 5 Company Name: TSMT | U.S. EPA ID Number: MOD 095038998

26. Transporter _____ Company Name | U.S. EPA ID Number

GENERATOR

27a. HM	27b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	28. Containers No.	28. Containers Type	29. Total Quantity	30. Unit Wt./Vol.	31. Waste Codes
	TPD					

32. Special Handling Instructions and Additional Information

33. Transporter 5 Acknowledgment of Receipt of Materials
Printed/Typed Name: Bryan Baker | Signature | Month: 3 | Day: 1 | Year: 17

34. Transporter _____ Acknowledgment of Receipt of Materials
Printed/Typed Name | Signature | Month | Day | Year

35. Discrepancy

36. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

Form 8700-22A (Rev. 3-05) Previous editions are obsolete. DESIGNATED FACILITY TO DESTINATION STATE (IF REQUIRED)

2/16 aad # 020643

SI 1700123396-002 SC PPW 1.4.2017

Please print or type. (Form designed for use on elite (12-pitch) typewriter.) Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Manifest Tracking Number
OESOG	2	(800) 483-3718	010466150 FLE

GENERATOR

5. Generator's Name and Mailing Address
Medford Plating
702 S Grape st
Medford. OR 97501
Generator's Phone: (541) 292-0433

Generator's Site Address (if different than mailing address)
SAME

6. Transporter 1 Company Name: Clean Harbors Environmental Service, Inc.
U.S. EPA ID Number: MAD039322250

7. Transporter 2 Company Name: Safety Kleen Systems Inc
U.S. EPA ID Number: TXR000081205

8. Designated Facility Name and Site Address
Clean Harbors Grassy Mountain LLC
3 Miles East 7 Miles North of Knolls
Grantsville. UT 84029
Facility's Phone: (435) 884-8500
U.S. EPA ID Number: UTD991301748

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes		
X	1. UN3288, WASTE TOXIC SOLID, INORGANIC, N.O.S., (CADMIUM OXIDE POWDER), 6.1, PG II	001	DF	00052	P	D006		
X	2. UN2922, WASTE CORROSIVE LIQUIDS, TOXIC, N.O.S., (CHROMIUN, LEAD), 8, (6.1), PG II	002	TP	05280	P	D002 D008	D004 F007	D007
X	3. UN2922, WASTE CORROSIVE LIQUIDS, TOXIC, N.O.S., (CHROMIUM), 8, (6.1), PG II	002	TP	04920	P	D002	D007	F007
X	4. UN2922, WASTE CORROSIVE LIQUIDS, TOXIC, N.O.S., (CHROMIUM, SILVER), 8, (6.1), PG II	005	TP	12500	P	D002 D007	D004 D011	D006 F007

14. Special Handling Instructions and Additional Information
1.CH1372557 ERG#151 1X55 (1x ISOM 09 in 30DP)
2.CH1359424 ERG#154 2XTOTE
3.CH1359427 ERG#154 2XTOTE
4.CH1343153 ERG#154 2XTOTE

15. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: On behalf of GPG Dennis Carroll
Signature: [signature]
Month 02 Day 15 Year 17

INTL

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: Mike Masa
Signature: [signature]
Month 2 Day 15 Year 17

Transporter 2 Printed/Typed Name: Martin Skaden
Signature: [signature]
Month 02 Day 16 Year 17

DESIGNATED FACILITY

18. Discrepancy

18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
Manifest Reference Number:

18b. Alternate Facility (or Generator)
U.S. EPA ID Number
Facility's Phone:

18c. Signature of Alternate Facility (or Generator)
Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1.	2.	3.	4.
H132	H132	H132	H132

20170002207

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a
Printed/Typed Name: F. Keith Gunnells
Signature: F. Keith Gunnells
Month 3 Day 1 Year 17

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete.

DESIGNATED FACILITY TO DESTINATION STATE (IF REQUIRED)
Clean Harbors has the appropriate permits for and will accept the waste the generator is shipping.

Please print or type. (Form designed for use on elite (12-pitch) typewriter.) GL1700123398-002 SC EPW 1.4.2017 Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST (Continuation Sheet)

21. Generator ID Number: CESOG
22. Page: 2 of 2
23. Manifest Tracking Number: 010466150FLE

24. Generator's Name: Medford Plating

25. Transporter 3 Company Name: T&MT — U.S. EPA ID Number: MDD045038998

26. Transporter 4 Company Name: CHES — U.S. EPA ID Number: MAD039322250

27a. HM	27b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	28. Containers No.	28. Containers Type	29. Total Quantity	30. Unit Wt./Vol.	31. Waste Codes
X	5. UN1823, SODIUM HYDROXIDE, SOLID, (SODIUM HYDROXIDE), 8, PG II	001	DM	00350	P	
X	6. NA3082, HAZARDOUS WASTE, LIQUID, N.O.S., (CHROMIUM), 9, PG III	001	TP	00095	P	D007 F007
	7. NON DOT REGULATED MATERIAL, (BUFFING/SCOURING COMPOUND)	001	DM	00125	P	
	8. NON DOT REGULATED MATERIAL, (BUFFING/SCOURING COMPOUND)	~~001~~ 002	DF	~~01530~~ 380	P	

32. Special Handling Instructions and Additional Information
5. CH1359509 ERG#154 1X85 (1 @ 55G OP in 85 DM)
6. CH1359421 ERG#171 1X TOTE
7. CH1378421 1X85
8. ~~CH1378421~~ 2455

33. Transporter 3 Acknowledgment of Receipt of Materials
Printed/Typed Name: Rosa Bates — Signature: [signature] — Month: 2 Day: 20 Year: 17

34. Transporter 4 Acknowledgment of Receipt of Materials
Printed/Typed Name: Brian Boyd — Signature: [signature] — Month: 02 Day: 21 Year: 17

35. Discrepancy

36. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

5. H132	6. H132	7. H132	8. H132	

GENERATOR / TRANSPORTER / DESIGNATED FACILITY

EPA Form 8700-22A (Rev. 3-05) Previous editions are obsolete.

DESIGNATED FACILITY TO DESTINATION STATE (IF REQUIRED)

Clean Harbors has the appropriate permits for and will accept the waste the generator is shipping

Clean Harbors Environmental Services

Land Disposal Restriction Notification Form

Printed Date :Feb 15, 2017

MANIFEST INFORMATION

Generator : Medford Plating
Address: 702 S Grape st
Medford,OR 97501
EPA ID #: C E S Q G

Manifest Tracking Info.
010466150FLE
Sales Order No: 1700123396-002

LINE ITEM INFORMATION

Line Item:	Page No:	Profile No:	Treatability Group:	LDR Disposal Category
1.	1	CH1372557	NON-WASTEWATER	2 (This is subject to LDR.)

EPA Waste Code	EPA Waste SubCategory
D006	Toxicity characteristic for Cadmium

LINE ITEM INFORMATION

Line Item:	Page No:	Profile No:	Treatability Group:	LDR Disposal Category
2.	1	CH1359424	WASTEWATER	2 (This is subject to LDR.)

EPA Waste Code	EPA Waste SubCategory
D002	Corrosive Characteristic
D004	Toxicity Characteristic for Arsenic
D007	Toxicity Characteristic for Chromium
D008	Toxicity Characteristic for Lead
F007	NONE

LINE ITEM INFORMATION

Line Item:	Page No:	Profile No:	Treatability Group:	LDR Disposal Category
3.	1	CH1359427	WASTEWATER	2 (This is subject to LDR.)

EPA Waste Code	EPA Waste SubCategory
D002	Corrosive Characteristic
D007	Toxicity Characteristic for Chromium
F007	NONE

LINE ITEM INFORMATION

Line Item:	Page No:	Profile No:	Treatability Group:	LDR Disposal Category
4.	1	CH1343158	WASTEWATER	2 (This is subject to LDR.)

EPA Waste Code	EPA Waste SubCategory
D002	Corrosive Characteristic
D004	Toxicity Characteristic for Arsenic
D006	Toxicity characteristic for Cadmium
D007	Toxicity Characteristic for Chromium
D011	Toxicity Characteristic for Silver

Clean Harbors
ENVIRONMENTAL SERVICES

Land Disposal Restriction Notification Form

Printed Date :Feb 15, 2017

F007	NONE

LDR Chemical Data

Chemical	Underlying Hazardous Constituents	Constituents of Concern	Contaminants Subject to Treatment
FLUORIDE	Y	N	N

LINE ITEM INFORMATION

Line Item:	Page No:	Profile No:	Treatability Group:	LDR Disposal Category
6.	2	CH1369421	WASTEWATER	2 (This is subject to LDR.)

EPA Waste Code	EPA Waste SubCategory
D007	Toxicity Characteristic for Chromium
F007	NONE

LDR Chemical Data

Chemical	Underlying Hazardous Constituents	Constituents of Concern	Contaminants Subject to Treatment
FLUORIDE	Y	N	N

Certification	Applies to Manifest Line Items
Pursuant to 40 CFR 268.7(a), I hereby notify that this shipment contains waste restricted under 40 CFR Part 268.	1. 2. 3. 4. 6.
This waste is not restricted as specified in 40 CFR 268 Subpart D.	6. 7. 8.

Waste analysis data, where available, is attached.

Signature: on behalf of GPG Dennis Carroll Print Name: Dennis Carroll

Title : Rep Date : 02/15/17

2/4

V170305 84

Please print or type. (Form designed for use on elite (12-pitch) typewriter.) SI 1700123396-002 SC PPW 1/4/2017 Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Manifest Tracking Number
CESOG	2/3	(800) 483-3718	010466151 FLE

GENERATOR

5. Generator's Name and Mailing Address
Medford Plating
702 S Grape st
Medford, OR 97501
Generator's Phone: (541) 292-0433

Generator's Site Address (if different than mailing address)
SAME

6. Transporter 1 Company Name: Clean Harbors Environmental Service, Inc. — U.S. EPA ID Number: MAD039322250

7. Transporter 2 Company Name: Safety Kleen Systems Inc — U.S. EPA ID Number: TXR000081205

8. Designated Facility Name and Site Address
Clean Harbors Environmental Service, Inc.
2247 South Highway 71
Kimball, NE 69145
Facility's Phone: (308) 235-4012

U.S. EPA ID Number: NED981723513

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
X	1. UN3098, WASTE OXIDIZING LIQUID, CORROSIVE, N.O.S., (CHROMIC ACID, POTASSIUM BICHROMATE),), 5.1, (8), PG II	001	DF	00030	P	D001 D002 D007
	2.					
	3.					
	4.					

14. Special Handling Instructions and Additional Information
1.CH1368757 ERG#140 1X30 (1 x 16 df OP in 30 df)

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: on behalf of GPG Dennis Carroll — Signature: [signature] — Month 02 Day 15 Year 17

INT'L

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: Mike Mason — Signature: [signature] — Month 2 Day 15 Year 17

Transporter 2 Printed/Typed Name: Martin Skolka — Signature: [signature] — Month 02 Day 16 Year 17

DESIGNATED FACILITY

18. Discrepancy

18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

18b. Alternate Facility (or Generator) — U.S. EPA ID Number

Facility's Phone:

18c. Signature of Alternate Facility (or Generator) — Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1.	2.	3.	4.
H141			

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a

Printed/Typed Name: Laura Johnson — Signature: [signature] — Month 3 Day 9 Year 17

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete.

DESIGNATED FACILITY TO DESTINATION STATE (IF REQUIRED)

Clean Harbors has the appropriate permits for and will accept the waste the generator is shipping.

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST (Continuation Sheet)

21. Generator ID Number: CESQG

22. Page: 2 of

23. Manifest Tracking Number: 010466151 FLE

24. Generator's Name: Medford Plating

25. Transporter 3 Company Name: TSMT — U.S. EPA ID Number: MDD095038998

26. Transporter 4 Company Name: CHES — U.S. EPA ID Number: MAD039322250

27a. HM	27b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	28. Containers No.	28. Containers Type	29. Total Quantity	30. Unit Wt./Vol.	31. Waste Codes

32. Special Handling Instructions and Additional Information

TRANSPORTER

33. Transporter 3 Acknowledgment of Receipt of Materials
Printed/Typed Name: Shanae Thompson — Signature: Shanae Thompson — Month: 10 Day: 23 Year: 17

34. Transporter 4 Acknowledgment of Receipt of Materials
Printed/Typed Name: Mo Green — Signature: [illegible] — Month: 2 Day: 27 Year: 17

DESIGNATED FACILITY

35. Discrepancy

36. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

EPA Form 8700-22A (Rev. 3-05) Previous editions are obsolete.

DESIGNATED FACILITY TO DESTINATION STATE (IF REQUIRED)

Please print or type. (Form designed for use on elite (12-pitch) typewriter.) Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST (Continuation Sheet)

21. Generator ID Number: CESQG

22. Page: 3/3

23. Manifest Tracking Number: 010 466151 FLE

24. Generator's Name: Medford Plating

25. Transporter 5 Company Name: TSMT — U.S. EPA ID Number: MODO 950 389 98

26. Transporter _____ Company Name — U.S. EPA ID Number:

27a. HM	27b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	28. Containers No.	28. Containers Type	29. Total Quantity	30. Unit Wt./Vol.	31. Waste Codes

32. Special Handling Instructions and Additional Information

GENERATOR

33. Transporter 5 Acknowledgment of Receipt of Materials

Printed/Typed Name: Sandra Bates — Signature: Sandra Bates — Month: 3 Day: 8 Year: 17

34. Transporter _____ Acknowledgment of Receipt of Materials

Printed/Typed Name — Signature — Month — Day — Year

TRANSPORTER

35. Discrepancy

36. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

DESIGNATED FACILITY

EPA Form 8700-22A (Rev. 3-05) Previous editions are obsolete. DESIGNATED FACILITY TO DESTINATION STATE (IF REQUIRED)

Clean Harbors
ENVIRONMENTAL SERVICES

Land Disposal Restriction Notification Form

Printed Date :Feb 15, 2017

MANIFEST INFORMATION

Generator : Medford Plating
Address: 702 S Grape st
Medford,OR 97501

EPA ID #: C E S Q G

Manifest Tracking Info.
010466151FLE

Sales Order No: 1700123396-002

LINE ITEM INFORMATION

Line Item:	Page No:	Profile No:	Treatability Group:	LDR Disposal Category
1.	1	CH1368757	NON-WASTEWATER	2 (This is subject to LDR.)

EPA Waste Code	EPA Waste SubCategory
D001	High TOC Ignitable Liquids
D002	Corrosive Characteristic
D007	Toxicity Characteristic for Chromium

LDR Chemical Data

Chemical	Underlying Hazardous Constituents	Constituents of Concern	Contaminants Subject to Treatment
CHROMIUM	Y	N	N

Certification	Applies to Manifest Line Items
Pursuant to 40 CFR 268.7(a), I hereby notify that this shipment contains waste restricted under 40 CFR Part 268.	1.

Waste analysis data, where available, is attached.

Signature : on behalf of GPG Dennis Carroll Print Name Dennis Carroll

Title : Rep Date : 02/15/17

Please print or type. (Form designed for use on elite (12-pitch) typewriter.) CA 1700123396-002 SC PFW 1 4 2017 Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Manifest Tracking Number
CESQG	83	(800) 483-3718	010466152 FLE

GENERATOR

5. Generator's Name and Mailing Address
Medford Plating
702 S Grape st
Medford, OR 97501
Generator's Phone: (541) 292-0433

Generator's Site Address (if different than mailing address)
SAME

6. Transporter 1 Company Name
Clean Harbors Environmental Service, Inc.
OR ✓
U.S. EPA ID Number
MAD039322250

7. Transporter 2 Company Name
Safety Kleen Systems Inc
ES ✓
U.S. EPA ID Number
TxR000081205

8. Designated Facility Name and Site Address
Clean Harbors Arizona LLC
1340 West Lincoln Street
Phoenix AZ 85007
Facility's Phone: (602) 258-8155
CFC
U.S. EPA ID Number
AZD049318009

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
X	1. UN3077, ENVIRONMENTALLY HAZARDOUS SUBSTANCES, SOLID, N.O.S., (MERCURY), 9, PG III, (FLUORESCENT LIGHT TUBES - UNIVERSAL WASTE)	002 ~~001~~	CF	00032	P	
	2.					
	3.					
	4.					

14. Special Handling Instructions and Additional Information
1.CH1368746 ERG#171 ~~1~~ 2 ~~WASTE~~

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: on behalf of GPG Dennis Carroll
Signature:
Month 02 Day 15 Year 17

INT'L

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: Mike Mason
Signature:
Month 2 Day 15 Year 17

Transporter 2 Printed/Typed Name: Martin Skokan
Signature:
Month 02 Day 16 Year 17

DESIGNATED FACILITY

18. Discrepancy
18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
Manifest Reference Number:

18b. Alternate Facility (or Generator)
U.S. EPA ID Number
Facility's Phone:

18c. Signature of Alternate Facility (or Generator)
Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1.	2.	3.	4.
H141			

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a
EDCP EDCP RMSP

Printed/Typed Name: Raul A de la Paz J. DE JESUS
Signature:
Month 03 Day 08 Year 17

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete.

DESIGNATED FACILITY TO DESTINATION STATE (IF REQUIRED)

Clean Harbors has the appropriate permits for and will accept the waste the generator is shipping

Please print or type. (Form designed for use on elite (12-pitch) typewriter.) Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST (Continuation Sheet)

21. Generator ID Number: CESQG

22. Page 2 of 3

23. Manifest Tracking Number: 010466152 FLE

24. Generator's Name: Medford Plating

25. Transporter 3 Company Name: TSMT — U.S. EPA ID Number: MOD045038998

26. Transporter 4 Company Name: CHES — U.S. EPA ID Number: MAD039322250

GENERATOR

27a. HM	27b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	28. Containers No.	28. Containers Type	29. Total Quantity	30. Unit Wt./Vol.	31. Waste Codes		

32. Special Handling Instructions and Additional Information

TRANSPORTER

33. Transporter 3 Acknowledgment of Receipt of Materials
Printed/Typed Name: Shanae Thompson — Signature: [signature] — Month: 02 Day: 23 Year: 17

34. Transporter 4 Acknowledgment of Receipt of Materials
Printed/Typed Name: M. McGreen — Signature: [signature] — Month: 2 Day: 27 Year: 17

DESIGNATED FACILITY

35. Discrepancy

36. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

EPA Form 8700-22A (Rev. 3-05) Previous editions are obsolete. DESIGNATED FACILITY TO DESTINATION STATE (IF REQUIRED)

Please print or type. (Form designed for use on elite (12-pitch) typewriter.) Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST (Continuation Sheet)

21. Generator ID Number: CESQG

22. Page: 3

23. Manifest Tracking Number: 010466152 FLE

24. Generator's Name: Medford Plating

25. Transporter 5 Company Name: TSMT — U.S. EPA ID Number: MOD095038498

26. Transporter _____ Company Name — U.S. EPA ID Number:

GENERATOR

27a. HM	27b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	28. Containers No.	28. Containers Type	29. Total Quantity	30. Unit Wt./Vol.	31. Waste Codes

32. Special Handling Instructions and Additional Information

TRANSPORTER

33. Transporter 5 Acknowledgment of Receipt of Materials
Printed/Typed Name: Raul P — Signature: Raul P — Month: 03 Day: 10 Year: 17

34. Transporter _____ Acknowledgment of Receipt of Materials
Printed/Typed Name — Signature — Month Day Year

DESIGNATED FACILITY

35. Discrepancy

36. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

EPA Form 8700-22A (Rev. 3-05) Previous editions are obsolete.

DESIGNATED FACILITY TO DESTINATION STATE (IF REQUIRED)

2/16

Please print or type. (Form designed for use on elite (12-pitch) typewriter.) CI 1700123896-003 SCFPW 1, 4, 2017 Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Manifest Tracking Number
OESOG	1	(800) 483-3713	010466157 FLE

GENERATOR

5. Generator's Name and Mailing Address
Medford Plating
702 S Grape st
Medford, OR 97501
Generator's Phone: (541) 292-0433

Generator's Site Address (if different than mailing address)
SAME

6. Transporter 1 Company Name
Clean Harbors Environmental Service, Inc.
U.S. EPA ID Number
MAD039322250

7. Transporter 2 Company Name
Safety Kleen Systems Inc
U.S. EPA ID Number
TXR000081205

8. Designated Facility Name and Site Address
Clean Harbors Grassy Mountain LLC
3 Miles East 7 Miles North of Knolls
Grantsville, UT 84029
Facility's Phone: ~~(435) 884-8800~~
U.S. EPA ID Number
UTD991301748

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes		
X	1. NA3077, HAZARDOUS WASTE, SOLID, N.O.S., (CADMIUM, CHROMIUM), 9, PG III	001	~~DM~~ DF	00121	P	D006	D007	F006
	2.							
	3.							
	4.							

14. Special Handling Instructions and Additional Information
1.CHL374705 ERG#171 LXEE

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Dennis Carroll on Behalf of GPG
Signature: on behalf of GPG
Month 02 Day 15 Year 17

INT'L

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: Mike Mason
Signature:
Month 2 Day 15 Year 17

Transporter 2 Printed/Typed Name: Martin Skolow
Signature:
Month 02 Day 16 Year 17

DESIGNATED FACILITY

18. Discrepancy

18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
Manifest Reference Number:

18b. Alternate Facility (or Generator)
U.S. EPA ID Number
Facility's Phone:

18c. Signature of Alternate Facility (or Generator)
Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1.	2.	3.	4.
H132			2017002409

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a

Printed/Typed Name: F. Keith Gunnells
Signature: F. Keith Gunnells
Month 3 Day 6 Year 17

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete.

DESIGNATED FACILITY TO DESTINATION STATE (IF REQUIRED)
Clean Harbors has the appropriate permits for and will accept the waste the generator is shipping.

Please print or type. (Form designed for use on elite (12-pitch) typewriter.) Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST (Continuation Sheet)

21. Generator ID Number: CESQG | 22. Page: 2/2 | 23. Manifest Tracking Number: 010966157 FLE

24. Generator's Name: Medford Plating

25. Transporter 3 Company Name: TSMT | U.S. EPA ID Number: MODO9503998

26. Transporter 4 Company Name: CHES | U.S. EPA ID Number: MIADO 39322250

27a. HM	27b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	28. Containers No.	28. Containers Type	29. Total Quantity	30. Unit Wt./Vol.	31. Waste Codes		

32. Special Handling Instructions and Additional Information

TRANSPORTER

33. Transporter 3 Acknowledgment of Receipt of Materials
Printed/Typed Name: Shanae Thompson | Signature: Shanae Thompson | Month: 02 | Day: 23 | Year: 17

34. Transporter 4 Acknowledgment of Receipt of Materials
Printed/Typed Name: M. to Green | Signature: M. to Green | Month: 2 | Day: 27 | Year: 17

DESIGNATED FACILITY

35. Discrepancy

36. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

EPA Form 8700-22A (Rev. 3-05) Previous editions are obsolete. DESIGNATED FACILITY TO DESTINATION STATE (IF REQUIRED)

CleanHarbors
ENVIRONMENTAL SERVICES

Land Disposal Restriction Notification Form

Printed Date: Feb 15 2017

MANIFEST INFORMATION

Generator	Medford Plating	Manifest Tracking Info	
Address.	702 S Grape st Medford,OR 97501	010486157FLE	
EPA ID #.	C E S Q G	Sales Order No.	1700128386-003

LINE ITEM INFORMATION

Line Item.	Page No	Profile No	Treatability Group	LDR Disposal Category
1.	1	CH1374705	NON-WASTEWATER	3 (Alternate Debris Standard)

EPA Waste Code	EPA Waste SubCategory
D006	Toxicity characteristic for Cadmium
D007	Toxicity Characteristic for Chromium
F006	NONE

LDR Chemical Data

Chemical	Underlying Hazardous Constituents	Constituents of Concern	Contaminants Subject to Treatment
CADMIUM	Y	N	Y
CHROMIUM	Y	N	Y

Certification	Applies to Manifest Line Items
This hazardous debris is subject to the Alternate Treatment Standards of 40 CFR 268.45	1

Waste analysis data, where available, is attached

Signature. on behalf of GPG Dennis Carroll Print Name. Dennis Carroll

Title. Sup Date. 02/15/17

Lead - 020474

Please print or type. (Form designed for use on elite (12-pitch) typewriter.) Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Manifest Tracking Number
OR E6204	1	(800) 468-0124	010466158 FLE

5. Generator's Name and Mailing Address
Medford Plating
702 S Grape st
Medford, OR 97501
Generator's Phone: (541) 772-2048

Generator's Site Address (if different than mailing address)
SAME

6. Transporter 1 Company Name: Clean Harbors Environmental Service, Inc. — U.S. EPA ID Number: MAD033322350

7. Transporter 2 Company Name: Safety Kleen Systems INC — U.S. EPA ID Number: TXR000081205

8. Designated Facility Name and Site Address
Clean Harbors Arizona LLC
1340 West Lincoln Street
Phoenix AZ 85007
Facility's Phone: (602) 258-2155
U.S. EPA ID Number: AZD049018009

GENERATOR

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
X	1. RESIDUE LAST CONTAINED: UN3264, CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S., (), 8, PG III	~~002~~ 002	DF	~~00032~~ 00032	P	
X	2. RESIDUE LAST CONTAINED: UN3266, CORROSIVE LIQUID, BASIC, INORGANIC, N.O.S. (), 8, PG III	~~006~~ 006	DM	~~00096~~ 00096	P	
	3.					
	4.					

CR ✓
FS ✓
OFFC

14. Special Handling Instructions and Additional Information
1. CH1383354 ERG#154 ~~2x55~~ 2x55
2. CH1383354 ERG#154 ~~6x55~~ 6x55

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Denny Carroll on behalf of GPG — Signature: on behalf of GPG — Month 02 Day 15 Year 17

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

17. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: Mike Mason — Signature: Mike Mason — Month 2 Day 15 Year 17

Transporter 2 Printed/Typed Name: Martin Skoien — Signature: — Month 02 Day 16 Year 17

18. Discrepancy

18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
Manifest Reference Number:

18b. Alternate Facility (or Generator) — U.S. EPA ID Number
Facility's Phone:

18c. Signature of Alternate Facility (or Generator) — Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1.	2.	3.	4.
H141	H141		

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a

Printed/Typed Name: Ahmet Mamut — Signature: — Month 3 Day 2 Year 17

Form 8700-22 (Rev. 3-05) Previous editions are obsolete. **DESIGNATED FACILITY TO DESTINATION STATE (IF REQUIRED)**

Clean Harbors has the appropriate permits for and will accept the waste the generator is shipping

Please print or type. (Form designed for use on elite (12-pitch) typewriter.) Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST (Continuation Sheet)

21. Generator ID Number	22. Page	23. Manifest Tracking Number
CESQG	2/2	010466158 FLE

24. Generator's Name: Medford Plating

25. Transporter 3 Company Name: TSMT — U.S. EPA ID Number: MOD095038918

26. Transporter 4 Company Name: CITES — U.S. EPA ID Number: MAD039522250

GENERATOR

27a. HM	27b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	28. Containers No.	28. Containers Type	29. Total Quantity	30. Unit Wt./Vol.	31. Waste Codes

32. Special Handling Instructions and Additional Information

33. Transporter 3 Acknowledgment of Receipt of Materials
Printed/Typed Name: Rose Bates — Signature: Rose Bates — Month: 2 Day: 20 Year: 17

34. Transporter 4 Acknowledgment of Receipt of Materials
Printed/Typed Name: Brian Boyd — Signature: [signature] — Month: 02 Day: 21 Year: 17

35. Discrepancy

36. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

Form 8700-22A (Rev. 3-05) Previous editions are obsolete.

DESIGNATED FACILITY TO DESTINATION STATE (IF REQUIRED)

Memo

To: **Enforcement File**

From: **Dan Lobato**
Hazardous Waste Program
Western Region-Eugene

Date April 11, 2017

Subject: **Remedial Action Order No. LQ/HW-WR-2016-134**
General Property Group, LLC
Former Medford Plating
702 S. Grape Street
Medford, Oregon

DEQ
State of Oregon
Department of Environmental Quality

Program,
Address
Phone:

Fax:
Contact:
Email:
www.oregon.gov/DEQ

This memo is intended to document the respondent's compliance with the above referenced Remedial Action Order (RAO).

On August 30, 2016, the Department issued RAO LQ/HW-WR-2016-134 to General Property Group LLC, Kevin Curtin, Registered Agent (GPG). The RAO required remedial actions to be completed under defined timelines. Service of the RAO to GPG was completed on September 16, 2016. (Email attached) The following is a chronological accounting of the actions required and the response by the respondent:

Section V. ORDER

1. Notice of Intent to Comply

On September 20, 2016, I received an email from GPG, indicating that they hired SMAF Environmental to dispose of the materials. (Email attached)

2.B Access to Site

Access to the site was extremely limited. I asked repeatedly for notification when corrective actions were taking place so that I could be present. I wasn't informed when the contractor went to the site on January 11, 2017 to remove some of the wastes. On February 8, 2017, additional on-site work was being done and I was informed 4:20 pm on February 7, 2017 after I inquired as to status. (see email #22)

2.C Project Manager

Initially, on September 20, 2016, GPG identified SMAF employee Scott Pieper as the project manager for the corrective actions required. (see email #2) On December 5, 2016, GPG sent me an email with a letter attached. The letter indicated that SMAF would no longer be managing the project and that GPG would be the project manager for the project. (see email #16 w/letter attached)

EXHIBIT
Tabbies
A17 74 pages

Memo

State of Oregon
Department of Environmental Quality

Program,
Address
Phone:

Fax:
Contact:
Email:
www.oregon.gov/DEQ

2.D Work to be Performed

2.D.ii

The initial compliance date for submitting a work plan was October 7, 2016. SMAF submitted an extension request on behalf of GPG. (see attached email #4, 5 and 7) The work plan was submitted on October 27, 2016 (email #8). The Department approved the plan on October 27, 2016 (email #9)

2.D.iii

November 28, 2016 was the compliance date for completion of the work. (email #11, referenced 26th which is a Saturday)

November 4, 2016, SMAF sent an extension request. (email #12)

November 8, 2016, the Department approved the extension to December 9, 2016. (email #13)

November 22, 2016 SMAF unable to contact GPG. (email #14 and 15)

December 5, 2016 GPG requests an extension after terminating SMAF. The letter requests an extension to "the end of January". (email #16 w attached letter)

December 7, 2016 I requested an amended disposal plan since the previously approved plan identified SMAF as project manager and I wanted to make sure the plan details were the same. (email #17)

December 13, 2016, GPG sent an amended disposal plan. (email #17)

(approval?)

December 21, 2016 I requested an update of the plan. (email #18)

December 23, 2016 GPG informs me that the removal will be done "first week of January for the first part and second week of January for the second part. (email #18)

January 13, 2017 I asked for an update to the schedule since I hadn't heard anything. (email #19)

January 13, 2017 GPG sent an email saying they are waiting on the contractor.

January 27, 2017 I sent an email asking for an update. (email #20)

January 30, 2017 GPG sent an email saying they're still waiting. (email #20)

Memo

February 7, 2017 I sent an email imploring action. (email #21)

February 7, 2017, GPG says contractor will be there tomorrow morning (Feb 8th) at 7:00 am. (email # email#22)

February 16, 2017 I sent an email asking for an update (email #23)

February 16, 2017, GPG sent an email saying that "it's done". (email # 23)

2.D.iv

March 20, 2017 manifests were due from GPG.

March 27, 2017 GPG sent manifest by email. (email #24)

Note: Documentation of disposition of "other" wastes as prescribed in the RAO was not provided to me.

DEQ
State of Oregon
Department of Environmental Quality

Program,
Address
Phone:

Fax:
Contact:
Email:
www.oregon.gov/DEQ

1

LOBATO Dan

From: MacQuilliam Maggi
Sent: Monday, September 19, 2016 8:19 AM
To: ELWORTH Susan; LOBATO Dan
Subject: FW: Personal Service: General Property Group LLC, LQ/HW-WR-2016-134
Attachments: 5651aff.pdf

Hello Susan and Dan,

See below --

From: Lisa Carter [mailto:lisa@interstateprocessserving.com]
Sent: Friday, September 16, 2016 4:43 PM
To: 'MacQuilliam Maggi'
Subject: RE: Personal Service: General Property Group LLC, LQ/HW-WR-2016-134

Hi Maggi,
Service upon General Property Group LLC was completed 9/16/16 at 12:12pm by posting on the front door. Please see attached affidavit and invoice for service.
Mailing original to you.

Have a great weekend!

Thanks,
Lisa Carter
Interstate Process Serving
11575 SW Pacific Hwy Ste 220
Portland OR 97223
Phone 503.452.7179 Fax 503-452-7324
Celebrating 30 Years of Excellence

From: MacQuilliam Maggi [mailto:maggi.macquilliam@state.or.us]
Sent: Friday, September 16, 2016 12:01 PM
To: 'Lisa Carter'
Subject: RE: Personal Service: General Property Group LLC, LQ/HW-WR-2016-134

Lisa,

Thank you – please post! If at all possible, we would appreciate your letter stating the date that you posted at the office as soon as you can.

Maggi

From: Lisa Carter [mailto:lisa@interstateprocessserving.com]
Sent: Friday, September 16, 2016 11:51 AM
To: 'MacQuilliam Maggi'
Subject: RE: Personal Service: General Property Group LLC, LQ/HW-WR-2016-134
Importance: High

Hi Maggi,
Multiple attempts have been made, office always closed. Perhaps they open by appointment only. I have a server there now, office still closed – I told him to go ahead and post on the front door.
Please approve posting.

Thanks!
Lisa Carter
Interstate Process Serving
11575 SW Pacific Hwy Ste 220
Portland OR 97223
Phone 503.452.7179 Fax 503-452-7324
Celebrating 30 Years of Excellence

From: Lisa Carter [mailto:lisa@interstateprocessserving.com]
Sent: Tuesday, September 13, 2016 12:04 PM
To: 'MacQuilliam Maggi'
Subject: RE: Personal Service: General Property Group LLC, LQ/HW-WR-2016-134

Hi Maggi,
Documents are out for service, first attempt will be made this afternoon.

Thanks,
Lisa Carter
Interstate Process Serving
11575 SW Pacific Hwy Ste 220
Portland OR 97223
Phone 503.452.7179 Fax 503-452-7324
Celebrating 30 Years of Excellence

From: MacQuilliam Maggi [mailto:maggi.macquilliam@state.or.us]
Sent: Tuesday, September 13, 2016 10:28 AM
To: 'Lisa Carter'
Subject: RE: Personal Service: General Property Group LLC, LQ/HW-WR-2016-134

Good morning Lisa,

I know that I sent this request just a few days ago on Friday – but by any chance, has the document been served to General Property Group?

Maggi

From: Lisa Carter [mailto:lisa@interstateprocessserving.com]
Sent: Friday, September 09, 2016 12:07 PM
To: 'MacQuilliam Maggi'
Subject: RE: Personal Service: General Property Group LLC, LQ/HW-WR-2016-134

Received. Thank you!

From: MacQuilliam Maggi [mailto:maggi.macquilliam@state.or.us]
Sent: Friday, September 09, 2016 8:58 AM
To: 'Lisa Carter'
Cc: LOBATO Dan; MacQuilliam Maggi; ELWORTH Susan
Subject: Personal Service: General Property Group LLC, LQ/HW-WR-2016-134

Hello Lisa,

Please print and serve the attached documents, DEQ Case: LQ/HW-WR-2016-134

General Property Group LLC
Kevin J. Curtin, Registered Agent
15800 SW Boones Ferry Road, Suite A-3
Lake Oswego, OR 97035

Note the name of the person to whom the papers were delivered and the relationship of that person on the certificate of service. Please return a completed proof of service form and your billing to me at **DEQ-Office of Compliance and Enforcement, 811 SW 6th Avenue, Portland, OR 97204-1390**.

Please respond by email to verify that you have received this request. If you have questions, please call me at (503) 229-5340.

Thanks,

Maggi MacQuilliam
Oregon Department of Environmental Quality
Office of Compliance and Enforcement
(503) 229-5340

2

LOBATO Dan

From: OH Co <opropc@hotmail.com>
Sent: Tuesday, September 20, 2016 10:14 AM
To: LOBATO Dan
Subject: 702 S Grape St

Follow Up Flag: Follow up
Flag Status: Flagged

Dear Mr. Lobato,

As you know, we are working with SMAF Environmental, LLC to dispose of the materials at 702 S Grape St, Medford. Scott Pieper with SMAF Environmental, LLC recently sent you an inventory. He is working with NRC to put together a plan for disposal. We have not yet received the plan, however, we expect to have it soon. Please let me know that you have received this email.

Thank you.

Sincerely,

General Property Group LLC

2(2)

LOBATO Dan

From: ELWORTH Susan
Sent: Friday, September 30, 2016 12:25 PM
To: rscottp@whhsmaf.com; opropc@hotmail.com
Cc: LOBATO Dan
Subject: 702 S Grape Street Remedial Action Order

Gentlemen – Thank you for the updates your provided in your emails on September 23rd and 28th. I thought it would prove helpful to outline the requirements in the Order and the dates certain documentation is required to be submitted to DEQ. If any of these dates are unworkable, please contact Dan Lobato as soon as possible so that DEQ can provide a formal extension of the compliance date, if appropriate.

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3. Section V, paragraph 2.D.ii requires you to provide to DEQ prior to **October 7, 2016** a plan which addresses the following:
   - Actions which will be taken to characterize all of the items at the facility listed in Section III, paragraph 4 including the liquid in the sumps outside the building; and
   - Actions which will be taken to transport and dispose of all the solid and hazardous waste at the facility.

   As of this date, DEQ has received an inventory and sample results for the items located inside the building and Mr. Pieper's email from September 28th includes information on how further characterization of those items will be completed. Note that DEQ has yet to receive a plan for how the liquids in the sumps will be characterized.
4. Section V, paragraph 2.D.iii requires you to implement the plan submitted under Section V, paragraph 2.D.ii within 30 days after DEQ approves that plan.

If you have any questions regarding the work required under the Order, please contact Dan Lobato directly at 5416867998. Otherwise feel free to contact me with any questions.

Susan M. Elworth, JD
Department of Environmental Quality
(503) 229-5152

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3

LOBATO Dan

From: LOBATO Dan
Sent: Thursday, October 06, 2016 9:35 AM
To: 'Scott Pieper'; ELWORTH Susan
Cc: opropc@hotmail.com
Subject: RE: 702 S Grape Street Remedial Action Order
Attachments: CurtinOrder.pdf

Scott, I will be doing the extension request, we can do through email, however, written is preferred. Let me know how much of an extension you need and I will respond.

I have attached a copy of the order.

Dan Lobato
Compliance Specialist
Western Region Hazardous Waste Program
165 East 7th Ave., Suite 100, Eugene, OR 97401
541-686-7998 (direct line)
541-686-7551 (fax)
lobato.dan@deq.state.or.us

From: Scott Pieper [mailto:rscottp@whhsmaf.com]
Sent: Wednesday, October 05, 2016 3:57 PM
To: ELWORTH Susan
Cc: LOBATO Dan; opropc@hotmail.com
Subject: Re: 702 S Grape Street Remedial Action Order

Hi Susan,

I am working with the disposal company, NRC, to come up with a work plan. I hope to have this complete next week. Therefore, I am requesting an extension to the October 7 deadline, since I was unaware of this deadline until I received your e-mail.

Would you provide me with a copy of the order, so I can make sure we are helping our client with compliance?

Thank you,

> On September 30, 2016 at 12:25 PM ELWORTH Susan <susan.elworth@state.or.us> wrote:
>
> Gentlemen – Thank you for the updates your provided in your emails on September 23rd and 28th. I thought it would prove helpful to outline the requirements in the Order and the dates certain documentation is required to be submitted to DEQ. If any of these dates are unworkable, please contact Dan Lobato as soon as possible so that DEQ can provide a formal extension of the compliance date, if appropriate.

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4

LOBATO Dan

From: Scott Pieper <rscottp@whhsmaf.com>
Sent: Thursday, October 06, 2016 10:25 AM
To: LOBATO Dan
Cc: patricia_curtin@hotmail.com; opropc@hotmail.com; ELWORTH Susan
Subject: RE: 702 S Grape Street Remedial Action Order

Mr Lobato,

Thank you for forwarding me the order. I believe we will have the remedial action plan ready by the end of next week. In order to be sure, I request an extension for submittal of the plan to October 28th. Testing the sumps was not previously on my list. I will need to test the sumps to determine what actions, if any, are necessary.

Given the findings of the previous lab results, I propose we sample the sumps and test for the following:

- pH
- RCRA-8 Metals, plus zinc and nickel

Do you require any further analyses?

Regards,

> On October 6, 2016 at 9:35 AM LOBATO Dan <dan.lobato@state.or.us> wrote:
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> Scott, I will be doing the extension request, we can do through email, however, written is preferred. Let me know how much of an extension you need and I will respond.
>
> I have attached a copy of the order.
>
> *Dan Lobato*
>
> Compliance Specialist
>
> Western Region Hazardous Waste Program
>
> 165 East 7th Ave., Suite 100, Eugene, OR 97401
>
> 541-686-7998 (direct line)
>
> 541-686-7551 (fax)
>
> lobato.dan@deq.state.or.us

From: Scott Pieper [mailto:rscottp@whhsmaf.com]
Sent: Wednesday, October 05, 2016 3:57 PM
To: ELWORTH Susan
Cc: LOBATO Dan; opropc@hotmail.com
Subject: Re: 702 S Grape Street Remedial Action Order

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5

LOBATO Dan

From: LOBATO Dan
Sent: Thursday, October 06, 2016 1:33 PM
To: 'Scott Pieper'; LOBATO Dan
Cc: patricia_curtin@hotmail.com; opropc@hotmail.com; ELWORTH Susan
Subject: RE: 702 S Grape Street Remedial Action Order

Hi Scott,

I have approved the extension to the 28th of October, 2016. I have talked to the Office of Compliance and Enforcement and they will be drafting the extension letter to be signed by the Compliance Manager today (because it is a compliance date in a Department Order).

I agree with your proposal of what analytes to test the sumps for. That should cover the sumps.

Thanks for your attention to the compliance dates as violating the order could lead to additional civil penalties that can be avoided.

If you have any questions, don't hesitate to call or email me.

Thanks again.

Dan Lobato
Compliance Specialist
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165 East 7th Ave., Suite 100, Eugene, OR 97401
541-686-7998 (direct line)
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Cc: patricia_curtin@hotmail.com; opropc@hotmail.com; ELWORTH Susan
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541-686-7551 (fax)

lobato.dan@deq.state.or.us

From: Scott Pieper [mailto:rscottp@whhsmaf.com]
Sent: Wednesday, October 05, 2016 3:57 PM
To: ELWORTH Susan
Cc: LOBATO Dan; opropc@hotmail.com
Subject: Re: 702 S Grape Street Remedial Action Order

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Susan M. Elworth, JD

Department of Environmental Quality

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6

LOBATO Dan

From: LOBATO Dan
Sent: Thursday, October 06, 2016 3:09 PM
To: 'Scott Pieper'
Subject: RE: Waste Codes

Scott, after reviewing the analytical, I have the following:

Tank 2 –	D006 Cadmium
	D007 Chromium
	D011 Silver
	D002 Corrosivity
	D004 Arsenic
Tank 3	D007 Chromium
Tank 4	D008 Lead
Tank O1	D005 Barium
	D007 Chromium
	D008 Lead
	D002 Corrosivity
Tank O2	D006 Cadmium
	D007 Chromium
	D008 Lead
	D002 Corrosivity
Totes 4&5	D007 Chromium
	D002 Corrosivity
Totes B	D004 Arsenic
	D007 Chromium
	D008 Lead
	D002 Corrosivity

F006 if the sump has sludge or water that has any plating constituents.

Hope that helps.

From: Scott Pieper [mailto:rscottp@whhsmaf.com]
Sent: Thursday, October 06, 2016 2:25 PM
To: LOBATO Dan
Subject: Waste Codes

Dan,

Based on the analyses, I find the following Waste Codes aply:

- D002 Corrosive
- D007 Chromium
- D008 Lead
- F006 Wastewater form electroplating - is this correct?

Any others? Also any State of Oregon codes?

Thank you

R. Scott Pieper, R.G.

Environmental Services Manager

SMAF Environmental LLC

2260 NW Industrial Park Road

Prineville, OR 97754

(800) 875-7069 24-hour Spill Response Hotline

(541) 447-5643 Office

(541) 233-7830 Mobile

7

LOBATO Dan

From: ELWORTH Susan <susan.elworth@state.or.us>
Sent: Thursday, October 06, 2016 3:51 PM
To: LOBATO Dan; 'Scott Pieper'
Cc: patricia_curtin@hotmail.com; opropc@hotmail.com
Subject: RE: 702 S Grape Street Remedial Action Order
Attachments: 201610061522.pdf

All – Attached is the letter allowing an extension until October 28, 2016. Thank you - Susan

---

From: LOBATO Dan [mailto:dan.lobato@state.or.us]
Sent: Thursday, October 06, 2016 1:33 PM
To: 'Scott Pieper'; LOBATO Dan
Cc: patricia_curtin@hotmail.com; opropc@hotmail.com; ELWORTH Susan
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Department of Environmental Quality

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8

LOBATO Dan

From: Scott Pieper <rscottp@whhsmaf.com>
Sent: Thursday, October 27, 2016 11:05 AM
To: LOBATO Dan
Cc: patricia_curtin@hotmail.com; Benedict, Kevin
Subject: Medford Metals disposal plan

Mr. Lobato,

Attached please find the disposal plan for the former Medford Metals facility. We are still investigating recycling/re-use options for some of the materials which are in totes and drums, but this covers all of the items listed on the chemical inventory.

Please let me know if you require any additions, clarifications, or if you have any questions.

Regards,

R. Scott Pieper, R.G.

Environmental Services Manager

SMAF Environmental LLC

2260 NW Industrial Park Road

Prineville, OR 97754

(800) 875-7069 24-hour Spill Response Hotline

(541) 447-5643 Office

(541) 233-7830 Mobile

SMAF ENVIRONMENTAL

Dan Lobato
Compliance Specialist
Western Region Hazardous Waste Program
165 East 7th Ave., Suite 100, Eugene, OR 97401

RE: Disposal Plan for Medford Metals, 702 S Grape Street, Medford

Mr. Lobato,

SMAF Environmental and NRC will perform the removal action for General Properties Group at the former Medford Metals facility.

Crews with appropriate PPE with use compatible transfer pumps to empty the dip tanks into totes, or use the liquid vac truck to combine contents for shipment as detailed below:

Source	Packaging	Destination
Tank 2	Transfer to totes	Chem Waste, Arlington OR
Tank 3	Transfer to totes	Chem Waste, Arlington OR
Tank 4	Transfer to totes	Chem Waste, Arlington OR
Tanks5, 6,7,8, 9, 11	Consolidate in Tanker	Chem Waste, Arlington OR
Tanks O-1, O-2	Transfer to Totes	Chem Waste, Arlington OR
Totes 1-5	Ship as is	Chem Waste, Arlington OR
55-gallon drums of Acid	Ship as is	Chem Waste, Arlington OR
1-gallon containers	Combine in Drums	Chem Waste, Arlington OR
5-gallon containers	Combine in Drums	Chem Waste, Arlington OR
Non-hazardous items	Combine in drums	Hillsboro Landfill

SMAF ENVIRONMENTAL

Totes will be loaded by forklift onto a placarded dry van.

Bulk liquid will be shipped in an 80-bbl liquid tanker, non-haz.

55-gallon drums will loaded onto a flatbed truck

Non-hazardous items will also be transported by the flatbed truck.

All of the hazardous materials will be transported to the Chemical Waste Facility in Arlington, OR, where they will be segregated and sent to appropriate disposal.

Non-hazardous items will be delivered to the Waste Management Hillsboro landfill.

Per our previous conversation, the liquid in the sumps will be left in place, based on the laboratory results.

Please let me know if you have any questions.

Regards,

Scott Pieper
SMAF Environmental LLC

SMAF Environmental LLC
PO Box 672, Prineville, OR 97754
(541) 447-5643

9

LOBATO Dan

From: LOBATO Dan
Sent: Thursday, October 27, 2016 1:19 PM
To: 'Scott Pieper'
Subject: RE: Disposal Plan re-send

Thanks for the submittal. It looks good and complies with Section D.ii. of RAO LQ/HW-WR-2016-134.

Dan Lobato
Compliance Specialist
Western Region Hazardous Waste Program
165 East 7th Ave., Suite 100, Eugene, OR 97401
541-686-7998 (direct line)
541-686-7551 (fax)
lobato.dan@deq.state.or.us

From: Scott Pieper [mailto:rscottp@whhsmaf.com]
Sent: Thursday, October 27, 2016 11:16 AM
To: LOBATO Dan
Cc: patricia_curtin@hotmail.com; Benedict, Kevin
Subject: Disposal Plan re-send

My apologies. Attached is the disposal plan for Medford Metals.

R. Scott Pieper, R.G.

Environmental Services Manager

SMAF Environmental LLC

2260 NW Industrial Park Road

Prineville, OR 97754

(800) 875-7069 24-hour Spill Response Hotline

(541) 447-5643 Office

(541) 233-7830 Mobile

10

LOBATO Dan

From: Scott Pieper <rscottp@whhsmaf.com>
Sent: Thursday, November 03, 2016 1:38 PM
To: LOBATO Dan
Subject: RE: Disposal Plan re-send

Hi Dan,

I am getting final costs from NRC, then will advise our client. After that, We will see.

Sent from my Verizon Smartphone

R Scott Pieper, R.G.
SMAF Environmental LLC
2260 NW Industrial Park Road
Prineville, OR 97754

Mobile: (541) 233-7830

-------- Original message --------
From: LOBATO Dan <dan.lobato@state.or.us>
Date: 11/3/16 1:31 PM (GMT-08:00)
To: 'Scott Pieper' <rscottp@whhsmaf.com>
Subject: RE: Disposal Plan re-send

Do you have a date when things will be shipped off-site yet?

From: LOBATO Dan
Sent: Thursday, October 27, 2016 1:19 PM
To: 'Scott Pieper'
Subject: RE: Disposal Plan re-send

Thanks for the submittal. It looks good and complies with Section D.ii. of RAO LQ/HW-WR-2016-134.

Dan Lobato

Compliance Specialist

Western Region Hazardous Waste Program

165 East 7th Ave., Suite 100, Eugene, 97401

541-686-7998 (direct line)

541-686-7551 (fax)

lobato.dan@deq.state.or.us

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To: LOBATO Dan
Cc: patricia_curtin@hotmail.com; Benedict, Kevin
Subject: Disposal Plan re-send

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Prineville, OR 97754

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(541) 447-5643 Office

(541) 233-7830 Mobile

11

LOBATO Dan

From: Scott Pieper <rscottp@whhsmaf.com>
Sent: Thursday, November 03, 2016 2:02 PM
To: patricia_curtin@hotmail.com
Cc: LOBATO Dan; Benedict, Kevin
Subject: Medford Plating cleanup

Hi Patricia,

DEQ has accepted the work plan for disposal of the hazardous materials at the former Medford Plating facility. I should have final numbers for disposal soon.

The removal must be completed by November 26th in order to comply with DEQ's cleanup order.

We can schedule this any time beginning next week, after you approve the budget.

Regards,

R. Scott Pieper, R.G.

Environmental Services Manager

SMAF Environmental LLC

2260 NW Industrial Park Road

Prineville, OR 97754

(800) 875-7069 24-hour Spill Response Hotline

(541) 447-5643 Office

(541) 233-7830 Mobile

12

LOBATO Dan

From: Scott Pieper <rscottp@whhsmaf.com>
Sent: Friday, November 04, 2016 1:42 PM
To: LOBATO Dan
Cc: patricia_curtin@hotmail.com
Subject: Medford Plating removal

Mr. Lobato,

Our primary disposal vendor, NRC, is concerned that we have a short week before the 26th due to Thanksgiving. They are quite busy, as are we. Therefore, I would like to request a 2 week extension to December 9th to make sure we can comply with the order.

We plan to have this completed this month, but the extension will allow us some room if logistics are problematic.

Regards,

R. Scott Pieper, R.G.

Environmental Services Manager

SMAF Environmental LLC

2260 NW Industrial Park Road

Prineville, OR 97754

(800) 875-7069 24-hour Spill Response Hotline

(541) 447-5643 Office

(541) 233-7830 Mobile

13

LOBATO Dan

From: Scott Pieper <rscottp@whhsmaf.com>
Sent: Tuesday, November 08, 2016 7:58 AM
To: LOBATO Dan
Cc: patricia_curtin@hotmail.com; Benedict, Kevin
Subject: RE: Medford Plating removal

Thank you for your consideration. We are working with our client to move forward on Nov. 28th.

On November 8, 2016 at 7:33 AM LOBATO Dan <dan.lobato@state.or.us> wrote:

Mr. Pieper, in consideration of your request to extend the disposal compliance date found in Remedial Action Order No. LQ/HW-WR-2016-134, the Department believes an extension to December 9, 2016 due to potential scheduling conflicts is reasonable and therefore approves your request. The new compliance date for completion of the disposal activities at 702 S. Grape Street in Medford, Oregon is December 9, 2016.

Dan Lobato

Compliance Specialist

Western Region Hazardous Waste Program

165 East 7th Ave., Suite 100, Eugene, OR 97401

541-686-7998 (direct line)

541-686-7551 (fax)

lobato.dan@deq.state.or.us

From: Scott Pieper [mailto:rscottp@whhsmaf.com]
Sent: Monday, November 07, 2016 7:01 AM
To: LOBATO Dan
Subject: Re: Medford Plating removal

As a follow-up, NRC is not available until Nov 28th. Therefore, an extension is necessary so our client does not suffer for our scheduling difficulties.

Thank you,

> On November 4, 2016 at 1:42 PM Scott Pieper <rscottp@whhsmaf.com> wrote:
>
> Mr. Lobato,
>
> Our primary disposal vendor, NRC, is concerned that we have a short week before the 26th due to Thanksgiving. They are quite busy, as are we. Therefore, I would like to request a 2 week extension to December 9th to make sure we can comply with the order.
>
> We plan to have this completed this month, but the extension will allow us some room if logistics are problematic.
>
> Regards,

R. Scott Pieper, R.G.

Environmental Services Manager

SMAF Environmental LLC

2260 NW Industrial Park Road

Prineville, OR 97754

(800) 875-7069 24-hour Spill Response Hotline

(541) 447-5643 Office

(541) 233-7830 Mobile

14

LOBATO Dan

From: Scott Pieper <rscottp@whhsmaf.com>
Sent: Tuesday, November 22, 2016 10:47 AM
To: patricia_curtin@hotmail.com; opropc@hotmail.com
Cc: Benedict, Kevin
Subject: Schedule change

Hi Patricia,

Since I have not heard from you, and we do not have a work order in place, we will cancel the planned cleanup/disposal currently scheduled for next Monday.

Please let me know your plans so I can adjust accordingly.

Regards,

R. Scott Pieper, R.G.

Environmental Services Manager

SMAF Environmental LLC

2260 NW Industrial Park Road

Prineville, OR 97754

(800) 875-7069 24-hour Spill Response Hotline

(541) 447-5643 Office

(541) 233-7830 Mobile

15

LOBATO Dan

From: Scott Pieper <rscottp@whhsmaf.com>
Sent: Tuesday, November 29, 2016 2:58 PM
To: LOBATO Dan
Subject: RE: Schedule change

Nothing. I emailed tester day and today.

Sent from my Verizon Smartphone

R Scott Pieper, R.G.
SMAF Environmental LLC
2260 NW Industrial Park Road
Prineville, OR 97754

Mobile: (541) 233-7830

-------- Original message --------
From: LOBATO Dan <dan.lobato@state.or.us>
Date: 11/29/16 2:49 PM (GMT-08:00)
To: 'Scott Pieper' <rscottp@whhsmaf.com>
Subject: RE: Schedule change

Scott, have you heard anything?

Dan

From: Scott Pieper [mailto:rscottp@whhsmaf.com]
Sent: Tuesday, November 22, 2016 10:47 AM
To: patricia_curtin@hotmail.com; opropc@hotmail.com
Cc: Benedict, Kevin
Subject: Schedule change

Hi Patricia,

Since I have not heard from you, and we do not have a work order in place, we will cancel the planned cleanup/disposal currently scheduled for next Monday.

Please let me know your plans so I can adjust accordingly.

Regards,

R. Scott Pieper, R.G.

Environmental Services Manager

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Prineville, OR 97754

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16

LOBATO Dan

From: OH Co <opropc@hotmail.com>
Sent: Monday, December 05, 2016 8:20 AM
To: LOBATO Dan
Subject: 702 S Grape St
Attachments: Extension Letter to Dan Lobato 12216.pdf

Follow Up Flag: Follow up
Flag Status: Flagged

Dear Mr. Lobato:

Please see the attached letter. Thank you.

Sincerely,

General Property Group LLC

General Property Group LLC

P.O. Box 8158
Medford, OR 97501

December 2, 2016

Dan Lobato
Western Region Hazardous Waste Program
165 East 7th Ave, Suite 100
Eugene, OR 97401

Dear Mr. Lobato:

Scott Pieper and SMAF Environmental, LLC are no longer working on the remediation project at 702 S Grape Street, Medford. We will now be working with Clean Harbors Environmental Services, Inc. Clean Harbors Environmental Services, Inc. will not be available to dispose of the waste until January. We are waiting for them to get back to us with an exact date. We would like to request an extension through the end of January due to the scheduling issue. We will let you know the exact date as soon as we hear back from them. Thank you for your time.

Sincerely,

General Property Group LLC

17

LOBATO Dan

From: OH Co <opropc@hotmail.com>
Sent: Tuesday, December 13, 2016 5:20 PM
To: LOBATO Dan
Subject: Re: 702 S Grape St
Attachments: GPG Plan (CH).pdf

Follow Up Flag: Follow up
Flag Status: Flagged

Dear Mr. Lobato:

Please see the attached disposal plan. Thank you.

Sincerely,

General Property Group LLC

From: LOBATO Dan <dan.lobato@state.or.us>
Sent: Wednesday, December 7, 2016 3:22 PM
To: OH Co
Subject: RE: 702 S Grape St

Mr. Curtin:

I have consulted with the Office of Compliance and Enforcement and my manager regarding your request for an extension to the previously extended date of December 9th, 2016.

We will need to see an updated disposal plan as required under the Order since the last plan is no longer valid. In addition, I would like to have a contact at Clean Harbors to interface with.

Please submit the updated plan and new project manager/contact as soon as possible but no later than Tuesday, December 13th.

Failure to submit the plan by the above date will be considered failure to comply with the order.

Respectfully,

Dan Lobato

From: OH Co [opropc@hotmail.com]
Sent: Monday, December 05, 2016 8:19 AM
To: LOBATO Dan
Subject: 702 S Grape St

Dear Mr. Lobato:

Please see the attached letter. Thank you.

Sincerely,

General Property Group LLC

18

LOBATO Dan

From: OH Co <opropc@hotmail.com>
Sent: Friday, December 23, 2016 1:17 PM
To: LOBATO Dan
Subject: Re: 702 S Grape St

Dear Mr. Lobato:

Clean Harbors has confirmed that they will be conducting Part 1 of our clean up plan during the first week of January. They do not know which day it will be. The will let us know as soon as possible. Once they finish Part 1, they will schedule Part 2. We expect Part 2 to be conducted the following week. General Property Group LLC will be the project manager moving forward. Thank you.

Sincerely,

General Property Group LLC

From: LOBATO Dan <dan.lobato@state.or.us>
Sent: Wednesday, December 21, 2016 7:53 AM
To: 'OH Co'
Subject: RE: 702 S Grape St

I haven't heard from you folks about missing parts of the disposal plan. Please update soon to avoid additional penalties associated with missing the compliance dates.

Dan Lobato
Compliance Specialist
Western Region Hazardous Waste Program
165 East 7th Ave., Suite 100, Eugene, OR 97401
541-686-7998 (direct line)
541-686-7551 (fax)
lobato.dan@deq.state.or.us

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Subject: 702 S Grape St

Dear Mr. Lobato:

Please see the attached letter. Thank you.

Sincerely,

General Property Group LLC

19

LOBATO Dan

From: OH Co <opropc@hotmail.com>
Sent: Friday, January 13, 2017 3:35 PM
To: LOBATO Dan
Subject: Re: 702 S Grape St

We are waiting on Clean Harbors for a time frame.

From: LOBATO Dan <dan.lobato@state.or.us>
Sent: Friday, January 13, 2017 7:03 AM
To: 'OH Co'
Subject: RE: 702 S Grape St

Please contact me with the updated schedule by close of business today to prevent the Department from enforcing the Remedial Action Order.

Dan Lobato
Compliance Specialist
Western Region Hazardous Waste Program
165 East 7th Ave., Suite 100, Eugene, OR 97401
541-686-7998 (direct line)
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Respectfully,

Dan Lobato

From: OH Co [opropc@hotmail.com]
Sent: Monday, December 05, 2016 8:19 AM

20

LOBATO Dan

From: OH Co <opropc@hotmail.com>
Sent: Monday, January 30, 2017 6:32 PM
To: LOBATO Dan
Subject: Re: 702 S Grape St

We are still waiting.
They had a couple of questions that we answered.

From: LOBATO Dan <dan.lobato@state.or.us>
Sent: Friday, January 27, 2017 7:43 AM
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Any news?

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To: LOBATO Dan
Subject: 702 S Grape St

Dear Mr. Lobato:

Please see the attached letter. Thank you.

Sincerely,

General Property Group LLC

21

LOBATO Dan

From: OH Co <opropc@hotmail.com>
Sent: Tuesday, February 07, 2017 12:10 PM
To: LOBATO Dan
Subject: Re: 702 S Grape St

Clean harbors is performing part of it tomorrow I believe.

From: LOBATO Dan <dan.lobato@state.or.us>
Sent: Tuesday, February 7, 2017 9:07 AM
To: 'OH Co'
Subject: RE: 702 S Grape St

We have to get this moving, I am getting pressure from above to get this finished. What is the status?

From: OH Co [mailto:opropc@hotmail.com]
Sent: Monday, January 30, 2017 6:32 PM
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Subject: Re: 702 S Grape St

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Dan Lobato
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Dan Lobato

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To: LOBATO Dan
Subject: 702 S Grape St

Dear Mr. Lobato:

Please see the attached letter. Thank you.

Sincerely,

General Property Group LLC

22

LOBATO Dan

From: OH Co <opropc@hotmail.com>
Sent: Tuesday, February 07, 2017 4:20 PM
To: LOBATO Dan
Subject: Re: 702 S Grape St

They will be there at 7:00 am tomorrow.

From: LOBATO Dan <dan.lobato@state.or.us>
Sent: Tuesday, February 7, 2017 12:12 PM
To: 'OH Co'
Subject: RE: 702 S Grape St

That's great news! Can you find out when?

From: OH Co [mailto:opropc@hotmail.com]
Sent: Tuesday, February 07, 2017 12:10 PM
To: LOBATO Dan
Subject: Re: 702 S Grape St

Clean harbors is performing part of it tomorrow I believe.

From: LOBATO Dan <dan.lobato@state.or.us>
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They had a couple of questions that we answered.

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Any news?

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Sent: Friday, January 13, 2017 3:35 PM
To: LOBATO Dan
Subject: Re: 702 S Grape St

We are waiting on Clean Harbors for a time frame.

From: LOBATO Dan <dan.lobato@state.or.us>
Sent: Friday, January 13, 2017 7:03 AM
To: 'OH Co'
Subject: RE: 702 S Grape St

Please contact me with the updated schedule by close of business today to prevent the Department from enforcing the Remedial Action Order.

Dan Lobato
Compliance Specialist
Western Region Hazardous Waste Program
165 East 7th Ave., Suite 100, Eugene, OR 97401
541-686-7998 (direct line)
541-686-7551 (fax)
lobato.dan@deq.state.or.us

From: OH Co [mailto:opropc@hotmail.com]
Sent: Friday, December 23, 2016 1:17 PM
To: LOBATO Dan
Subject: Re: 702 S Grape St

Dear Mr. Lobato:

Clean Harbors has confirmed that they will be conducting Part 1 of our clean up plan during the first week of January. They do not know which day it will be. The will let us know as soon as possible. Once they finish Part 1, they will schedule Part 2. We expect Part 2 to be conducted the following week. General Property Group LLC will be the project manager moving forward. Thank you.

Sincerely,

General Property Group LLC

From: LOBATO Dan <dan.lobato@state.or.us>
Sent: Wednesday, December 21, 2016 7:53 AM
To: 'OH Co'
Subject: RE: 702 S Grape St

I haven't heard from you folks about missing parts of the disposal plan. Please update soon to avoid additional penalties associated with missing the compliance dates.

Dan Lobato

Compliance Specialist
Western Region Hazardous Waste Program
165 East 7th Ave., Suite 100, Eugene, OR 97401
541-686-7998 (direct line)
541-686-7551 (fax)
lobato.dan@deq.state.or.us

From: OH Co [mailto:opropc@hotmail.com]
Sent: Tuesday, December 13, 2016 5:20 PM
To: LOBATO Dan
Subject: Re: 702 S Grape St

Dear Mr. Lobato:

Please see the attached disposal plan. Thank you.

Sincerely,

General Property Group LLC

From: LOBATO Dan <dan.lobato@state.or.us>
Sent: Wednesday, December 7, 2016 3:22 PM
To: OH Co
Subject: RE: 702 S Grape St

Mr. Curtin:

I have consulted with the Office of Compliance and Enforcement and my manager regarding your request for an extension to the previously extended date of December 9th, 2016.

We will need to see an updated disposal plan as required under the Order since the last plan is no longer valid. In addition, I would like to have a contact at Clean Harbors to interface with.

Please submit the updated plan and new project manager/contact as soon as possible but no later than Tuesday, December 13th.

Failure to submit the plan by the above date will be considered failure to comply with the order.

Respectfully,

Dan Lobato

From: OH Co [opropc@hotmail.com]
Sent: Monday, December 05, 2016 8:19 AM
To: LOBATO Dan
Subject: 702 S Grape St

Dear Mr. Lobato:

Please see the attached letter. Thank you.

Sincerely,

General Property Group LLC

23

LOBATO Dan

From: OH Co <opropc@hotmail.com>
Sent: Thursday, February 16, 2017 10:22 AM
To: LOBATO Dan
Subject: Re: 702 S Grape St

It is done. It has been cleaned out.

From: LOBATO Dan <dan.lobato@state.or.us>
Sent: Thursday, February 16, 2017 6:43 AM
To: 'OH Co'
Subject: RE: 702 S Grape St

Any update to the schedule?

From: OH Co [mailto:opropc@hotmail.com]
Sent: Tuesday, February 07, 2017 4:20 PM
To: LOBATO Dan
Subject: Re: 702 S Grape St

They will be there at 7:00 am tomorrow.

From: LOBATO Dan <dan.lobato@state.or.us>
Sent: Tuesday, February 7, 2017 12:12 PM
To: 'OH Co'
Subject: RE: 702 S Grape St

That's great news! Can you find out when?

From: OH Co [mailto:opropc@hotmail.com]
Sent: Tuesday, February 07, 2017 12:10 PM
To: LOBATO Dan
Subject: Re: 702 S Grape St

Clean harbors is performing part of it tomorrow I believe.

From: LOBATO Dan <dan.lobato@state.or.us>
Sent: Tuesday, February 7, 2017 9:07 AM
To: 'OH Co'
Subject: RE: 702 S Grape St

We have to get this moving, I am getting pressure from above to get this finished. What is the status?

From: OH Co [mailto:opropc@hotmail.com]
Sent: Monday, January 30, 2017 6:32 PM
To: LOBATO Dan
Subject: Re: 702 S Grape St

We are still waiting.
They had a couple of questions that we answered.

From: LOBATO Dan <dan.lobato@state.or.us>
Sent: Friday, January 27, 2017 7:43 AM
To: 'OH Co'
Subject: RE: 702 S Grape St

Any news?

From: OH Co [mailto:opropc@hotmail.com]
Sent: Friday, January 13, 2017 3:35 PM
To: LOBATO Dan
Subject: Re: 702 S Grape St

We are waiting on Clean Harbors for a time frame.

From: LOBATO Dan <dan.lobato@state.or.us>
Sent: Friday, January 13, 2017 7:03 AM
To: 'OH Co'
Subject: RE: 702 S Grape St

Please contact me with the updated schedule by close of business today to prevent the Department from enforcing the Remedial Action Order.

Dan Lobato
Compliance Specialist
Western Region Hazardous Waste Program
165 East 7th Ave., Suite 100, Eugene, OR 97401
541-686-7998 (direct line)
541-686-7551 (fax)
lobato.dan@deq.state.or.us

From: OH Co [mailto:opropc@hotmail.com]
Sent: Friday, December 23, 2016 1:17 PM
To: LOBATO Dan
Subject: Re: 702 S Grape St

Dear Mr. Lobato:

Clean Harbors has confirmed that they will be conducting Part 1 of our clean up plan during the first week of January. They do not know which day it will be. The will let us know as soon as possible. Once they finish Part 1, they will schedule Part 2. We expect Part 2 to be conducted the following week. General Property Group LLC will be the project manager moving forward. Thank you.

Sincerely,

General Property Group LLC

From: LOBATO Dan <dan.lobato@state.or.us>
Sent: Wednesday, December 21, 2016 7:53 AM
To: 'OH Co'
Subject: RE: 702 S Grape St

I haven't heard from you folks about missing parts of the disposal plan. Please update soon to avoid additional penalties associated with missing the compliance dates.

Dan Lobato
Compliance Specialist
Western Region Hazardous Waste Program
165 East 7th Ave., Suite 100, Eugene, OR 97401
541-686-7998 (direct line)
541-686-7551 (fax)
lobato.dan@deq.state.or.us

From: OH Co [mailto:opropc@hotmail.com]
Sent: Tuesday, December 13, 2016 5:20 PM
To: LOBATO Dan
Subject: Re: 702 S Grape St

Dear Mr. Lobato:

Please see the attached disposal plan. Thank you.

Sincerely,

General Property Group LLC

From: LOBATO Dan <dan.lobato@state.or.us>
Sent: Wednesday, December 7, 2016 3:22 PM
To: OH Co
Subject: RE: 702 S Grape St

Mr. Curtin:

I have consulted with the Office of Compliance and Enforcement and my manager regarding your request for an extension to the previously extended date of December 9th, 2016.

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Please submit the updated plan and new , ,ect manager/contact as soon as possible but . .ater than Tuesday, December 13th.

Failure to submit the plan by the above date will be considered failure to comply with the order.

Respectfully,

Dan Lobato

From: OH Co [opropc@hotmail.com]
Sent: Monday, December 05, 2016 8:19 AM
To: LOBATO Dan
Subject: 702 S Grape St

Dear Mr. Lobato:

Please see the attached letter. Thank you.

Sincerely,

General Property Group LLC

#24

LOBATO Dan

From: OH Co <opropc@hotmail.com>
Sent: Friday, March 24, 2017 6:32 PM
To: LOBATO Dan
Subject: 702 S Grape St Manifests
Attachments: Manifest_Tracking (702 S Grape St)1.pdf

Hello,

Attached is the manifest tracking summary from Clean Harbors. Thank you.

ELWORTH Susan

From: LOBATO Dan
Sent: Tuesday, November 28, 2017 9:46 AM
To: ELWORTH Susan
Subject: FW: 702 S Grape St Invoices
Attachments: 702 S Grape St_Invoice (CH) (1).pdf

Susan, I believe this will work for the non-haz stuff sent off, but I haven't reviewed in depth. I will look at it in the next couple of days and let you know.

Dan

From: OH Co [mailto:opropc@hotmail.com]
Sent: Monday, November 20, 2017 5:47 PM
To: LOBATO Dan <dan.lobato@state.or.us>
Subject: 702 S Grape St Invoices

Mr. Lobato:

Please see the attached invoices from Clean Harbors Env. Services. Thank you.

Per Dan - shows that non-h waste was disposed of.
JM

EXHIBIT
tabbies
A18 8 pages

INVOICE

Invoice No 1001762802

REMIT TO:
Clean Harbors Env. Services
PO Box 3442
Boston, MA 02241-3442

EIN: 04-2698999

SOLD TO:
Patricia Curtin
General Property Group LLC
PO Box 8158
Medford, OR 97501 - 0000

OFFICE:
Clean Harbors Environmental Service, Inc.
16540 SE 130th Avenue
Clackamas, OR 97015
(503) 742-7109
If you have any questions regarding this invoice, please contact your customer service representative at the telephone number listed above

JOB SITE/GENERATOR:
Medford Plating
702 S Grape st
Medford, OR 97501 - 0000

Job Description: labpack and totes

**** Payable in USD funds ****

15 Feb 2017	1001762802	GE28782	6I	1700123396	No PO Needed	NET 15 DAYS

Start Service Date	Task	Task Type	Description	Total
15 Feb 2017	1700123396-001	GENERAL	labpack and totes	$12,405.28
15 Feb 2017	1700123396-002	GENERAL	Packaging & Disposal	$8,925.17
16 Feb 2017	1700123396-003	GENERAL	disposal	$604.70

	SUBTOTAL	**$21,935.15**
	TAX	**$0.00**
PLEASE PAY THIS AMOUNT →	**INVOICE TOTAL**	**$21,935.15**
REMIT PAYMENT BY →	**DUE DATE**	**30 Mar 2017**

Interest will be charged at a rate of 1.5% per month for all past due amounts.

CleanHarbors®

INVOICE
Invoice No 1001762802

TASK 1700123396-001 - labpack and totes

Manifest Info	Item ID	Description	Manifest Qty	Manifest UOM	Billing Qty	Billing UOM	Unit Price	Amount
		11 Jan 2017						
009996389FLE 1	DISPSL / LCCRD	Labpack Flammables For Incineration LCCRD	1	55CF	1.000	55CF	275.0000	$275.00
	FEE-DISP	Utah Hazardous Waste for Disposal			0.045	T	35.0000	$1.56
009996389FLE 2	DISPSL / LCCRO	Labpack Oxidizers For Incineration LCCRO	1	05DF	1.000	05DF	85.0000	$85.00
	FEE-DISP	Utah Hazardous Waste for Disposal			0.003	T	35.0000	$0.09
009996389FLE 3	DISPSL / LCCRA	Labpack Acid & Acid Compatibles For Incineration LCCRA	1	55DF	1.000	55DF	275.0000	$275.00
	FEE-DISP	Utah Hazardous Waste for Disposal			0.079	T	35.0000	$2.77
009996389FLE 4	DISPSL / LCCRB	Labpack Basic & Basic Compatibles For Incineration LCCRB	1	55DF	1.000	55DF	275.0000	$275.00
	FEE-DISP	Utah Hazardous Waste for Disposal			0.035	T	35.0000	$1.21
009996389FLE 5	DISPSL / LCCRC	Labpack Organics For Incineration LCCRC	1	30CF	1.000	30CF	206.0000	$206.00
	FEE-DISP	Utah Non-Hazardous Waste for Disposal			0.018	T	2.5000	$0.04
009996389FLE 6	DISPSL / LCCRN	Labpack Non-Hazardous For Incineration LCCRN	3	55CF	3.000	55CF	275.0000	$825.00
	FEE-DISP	Utah Non-Hazardous Waste for Disposal			0.229	T	2.5000	$0.57
009996389FLE	TRAN	TRANSPORTATION			1.000	EA	1,500.0000	$1,500.00
	CLNPAKPPE	Standard Clean Pack PPE			2.000	EA	7.5000	$15.00
	SCE	Lead Chemist			8.000	HR	65.0000	$520.00
	CH	Chemist			8.000	HR	60.0000	$480.00
	SCEOT	Lead Chemist Overtime			2.000	HR	97.5000	$195.00
	CHOT	Chemist Overtime			2.000	HR	90.0000	$180.00
	DM55COPAK	Lab pak box, 55gal UN 4G/Y147.3/S HD poly liner included			4.000	EA	31.0000	$124.00
	DM30COPAK	Lab pak box, 30GAL, un 4g/y113/s HD poly liner included			1.000	EA	21.0000	$21.00
	DM55POLY	55 Gal / 205 Litre Open Head Poly, Reconditioned Drum 1H2/Y2			2.000	EA	98.0000	$196.00
	DM5POLY	5 Gal / 20 Litre Poly Drum 1H2/Y1.5/60			1.000	EA	23.0000	$23.00
	SORBVERM	Vermiculite 4 cuft			4.000	BAG	40.0000	$160.00
	PERDIEM3	Per Diem / Subsistence			1.000	DAY	150.0000	$150.00
	PERDIEM3	Per Diem / Subsistence			1.000	DAY	150.0000	$150.00
		14 Feb 2017						
	TKBOX10	Box Truck			4.500	HR	0.0000	$0.00
	SCE	Lead Chemist			4.500	HR	65.0000	$292.50
	CH	Chemist			4.500	HR	60.0000	$270.00
	PERDIEM3	Per Diem / Subsistence			1.000	DAY	150.0000	$150.00
	PERDIEM3	Per Diem / Subsistence			1.000	DAY	150.0000	$150.00
		15 Feb 2017						

CleanHarbors

INVOICE

Invoice No 1001762802

TASK 1700123396-001 - labpack and totes

Manifest Info	Item ID	Description	Manifest Qty	Manifest UOM	Billing Qty	Billing UOM	Unit Price	Amount
010466155FLE 1	DISPSL / B22A	CONCENTRATED HYDROCHLORIC ACID 11-32% - UNUSED CH1359408	1	16DF	1.000	16DF	140.0000	$140.00
010466155FLE 1	DISPSL / B22A	CONCENTRATED HYDROCHLORIC ACID 11-32% - UNUSED CH1359408	2	55DF	2.000	55DF	200.0000	$400.00
010466155FLE 2	DISPSL / B22A	CONCENTRATED HYDROCHLORIC ACID 11-32% - UNUSED CH1359408	1	85DM	1.000	85DM	290.0000	$290.00
	TRANSDOWN	010466155FLE/2 Trans to ultimate disposal facility			1.000	EA	52.6600	$52.66
	TRANSDOWN	010466155FLE/1 Trans to ultimate disposal facility			3.000	EA	52.6600	$157.98
010466154FLE 1	DISPSL / CBPS	Nickel Sulfate Solution CH1359410	4	55DF	4.000	55DF	100.0000	$400.00
	FEE-DOWN	Utah Non-Hazardous Waste for Disposal			0.609	T	2.5000	$1.52
	TRANSDOWN	010466154FLE/1 Trans to ultimate disposal facility			4.000	EA	7.5950	$30.38
	TKBOX10	Box Truck			13.500	HR	0.0000	$0.00
	CLNPAKPPE	Standard Clean Pack PPE			2.000	EA	7.5000	$15.00
	SCE	Lead Chemist			8.000	HR	65.0000	$520.00
	CH	Chemist			8.000	HR	60.0000	$480.00
	SCEOT	Lead Chemist Overtime			5.500	HR	97.5000	$536.25
	CHOT	Chemist Overtime			5.500	HR	90.0000	$495.00
	DM55POLY	55 Gal / 205 Litre Open Head Poly, Reconditioned Drum 1H2/Y2			3.000	EA	98.0000	$294.00
	DM55CPOLYR	55 Gal / 205 Litre Closed Poly Drum 1H1/Y1.8/150, Recycled			1.000	EA	101.0000	$101.00
	DM85STL	85 G / 320 L Steel Drum, Reconded 1A2/X400/S (Overpack)			3.000	EA	182.0000	$546.00
	DM30POLY	30 Gal / 120 Litre Poly Drum 1H2/Y142/S			2.000	EA	87.0000	$174.00
	SORBVERM	Vermiculite 4 cuft			3.000	BAG	40.0000	$120.00
	FEE	Recovery Fee			11,277.530	EA	0.1000	$1,127.75
							SUBTOTAL	**$12,405.28**
							TAX	**$0.00**
							TASK TOTAL	**$12,405.28**

TASK 1700123396-002 - Packaging & Disposal

Manifest Info	Item ID	Description	Manifest Qty	Manifest UOM	Billing Qty	Billing UOM	Unit Price	Amount
		15 Feb 2017						
010466152FLE 1	DISPSL / CFL1	STRAIGHT FLUORESCENT TUBES FOR RECLAIM CH1368746	2	8FTB	1.000	MIN	85.0000	$85.00
	TRANSDOWN	010466152FLE/1 Trans to ultimate disposal facility			2.000	EA	22.8300	$45.66
010466151FLE 1	DISPSL / CAXC	chromic acid and Potassium Bichromate Mixture CH1368757	1	30DF	1.000	MIN	855.0000	$855.00
	FEE-DOWN	Colorado Hazardous Waste Disposal Fee			0.032	T	9.9200	$0.32

CleanHarbors®

INVOICE
Invoice No 1001762802

TASK 1700123396-002 - Packaging & Disposal

Manifest Info	Item ID	Description	Manifest Qty	Manifest UOM	Billing Qty	Billing UOM	Unit Price	Amount
	FEE-DOWN	Adams County Waste Fee			855.000	%	0.0300	$25.65
	TRANSDOWN	010466151FLE/1 Trans to ultimate disposal facility			1.000	EA	6.1700	$6.17
010466150FLE 1	DISPSL / CCS	Cadmium Oxide CH1372557	1	30DF	1.000	30DF	120.0000	$120.00
	FEE-DISP	Utah Hazardous Waste for Treatment			0.054	T	17.5000	$0.94
010466150FLE 2	DISPSL / CCSF	Tote 1 and 2 CH1359424	2	TOTE	2.000	TOTE	693.0000	$1,386.00
	FEE-DISP	Utah Hazardous Waste for Treatment			3.312	T	17.5000	$57.96
010466150FLE 3	DISPSL / CCSF	Tote 4 and 5 CH1359427	2	TOTE	2.000	TOTE	693.0000	$1,386.00
	FEE-DISP	Utah Hazardous Waste for Treatment			3.274	T	17.5000	$57.30
010466150FLE 4	DISPSL / CCSF	Tank 2 CH1343158	5	TOTE	1.000	TOTE	693.0000	$693.00
010466150FLE 4	DISPSL / CCSF	Tank 2 CH1343158	5	TOTE	4.000	TOT2	550.0000	$2,200.00
	FEE-DISP	Utah Hazardous Waste for Treatment			5.726	T	17.5000	$100.21
010466150FLE 5	DISPSL / CBP	NaOH Solid CH1359509	1	85DM	1.000	85DM	174.0000	$174.00
	FEE-DISP	Utah Non-Hazardous Waste for Disposal			0.183	T	2.5000	$0.46
010466150FLE 6	DISPSL / CCSF	Tank 3 CH1359421	1	TOTE	1.000	TOT2	550.0000	$550.00
	FEE-DISP	Utah Hazardous Waste for Treatment			0.665	T	17.5000	$11.64
010466150FLE 7	DISPSL / CNO	Buffing Compound CH1372421	1	85DM	1.000	85DM	137.7500	$137.75
	FEE-DISP	Utah Non-Hazardous Waste for Disposal			0.088	T	2.5000	$0.22
010466150FLE 8	DISPSL / CNO	Buffing Compound CH1372421	2	55DF	2.000	55DF	95.0000	$190.00
	FEE-DISP	Utah Non-Hazardous Waste for Disposal			0.179	T	2.5000	$0.45
	TRANSDOWN	010466150FLE/7 Trans to ultimate disposal facility			1.000	EA	5.7800	$5.78
	TRANSDOWN	010466150FLE/1 Trans to ultimate disposal facility			1.000	EA	5.7800	$5.78
	TRANSDOWN	010466150FLE/5 Trans to ultimate disposal facility			1.000	EA	5.7800	$5.78
	TRANSDOWN	010466150FLE/6 Trans to ultimate disposal facility			1.000	EA	0.1156	$0.12
	TRANSDOWN	010466150FLE/8 Trans to ultimate disposal facility			2.000	EA	5.7800	$11.56
	TRANSDOWN	010466150FLE/2 Trans to ultimate disposal facility			2.000	EA	0.1156	$0.23
	TRANSDOWN	010466150FLE/3 Trans to ultimate disposal facility			2.000	EA	0.1156	$0.23
	TRANSDOWN	010466150FLE/4 Trans to ultimate disposal facility			5.000	EA	0.1156	$0.58
	FEE	Recovery Fee			8,113.790	EA	0.1000	$811.38
							SUBTOTAL	**$8,925.17**
							TAX	**$0.00**

CleanHarbors®

INVOICE

Invoice No 1001762802

TASK TOTAL **$8,925.17**

TASK 1700123396-003 - disposal

Manifest Info	Item ID	Description	Manifest Qty	Manifest UOM	Billing Qty	Billing UOM	Unit Price	Amount
		15 Feb 2017						
010466158FLE 1	DISPSL / D23	EMPTY DRUMS CH1383354	2	55DF	2.000	55DF	41.0000	$82.00
010466158FLE 2	DISPSL / D23	EMPTY DRUMS CH1383354	6	55DM	6.000	55DM	41.0000	$246.00
010466157FLE 1	DISPSL / CCSM	electroplating bath filters CH1374705	1	55DF	1.000	55DF	215.0000	$215.00
	FEE-DISP	Utah Hazardous Waste for Treatment			0.055	T	17.5000	$0.95
	TRANSDOWN	010466157FLE/1 Trans to ultimate disposal facility			1.000	EA	5.7800	$5.78
	PERDIEM3	Per Diem / Subsistence			1.000	DAY	0.0000	$0.00
	FEE	Recovery Fee			549.730	EA	0.1000	$54.97
							SUBTOTAL	**$604.70**
							TAX	**$0.00**
							TASK TOTAL	**$604.70**

Clean Harbors

INVOICE
Invoice No 1001724468

TASK 1700494230-001 - Vacuum Truck Service and Disposal

Manifest Info	Item ID	Description	Manifest Qty	Manifest UOM	Billing Qty	Billing UOM	Unit Price	Amount
		08 Feb 2017						
	TKPU	Pickup/Van/Car/Crew Cab			11.500	HR	22.0000	$253.00
	VACSJ&OP	Straight Vacuum Truck with Operator			8.000	HR	130.0000	$1,040.00
	VACSJ&OPOT	Straight Vacuum Truck with Operator Overtime			3.500	HR	162.0000	$567.00
	WASHER30H	3000psi Hot Water Pressure Washer			1.000	DAY	250.0000	$250.00
	PPEC2	Level C w/CPF1,2 or Polytyvec/Changeout			2.000	EA	62.0000	$124.00
	FT	Field Technician			8.000	HR	50.0000	$400.00
	FTOT	Field Technician Overtime			3.500	HR	75.0000	$262.50
	FT	Field Technician			8.000	HR	50.0000	$400.00
	FTOT	Field Technician Overtime			3.500	HR	75.0000	$262.50
		09 Feb 2017						
	TANKCLEAN	TANK CLEANOUT SERVICES, JOB RELATED			1.000	EA	300.0000	$300.00
	FEE	Recovery Fee			3,859.000	EA	0.1000	$385.90
							SUBTOTAL	**$4,244.90**
							TAX	**$0.00**
							TASK TOTAL	**$4,244.90**

TASK 1700494230-002 - Mobilization

Item ID	Description	Fixed Price Amount	Percent Complete	Billable Amount
	13 Feb 2017			
FIXD	Mobilization	4,282.0000	100%	$4,282.00
FEE	Recovery Fee	0.1000		$428.20
			SUBTOTAL	**$4,710.20**
			TAX	**$0.00**
			TASK TOTAL	**$4,710.20**

TASK 1700494230-003 - Disposal

Manifest Info	Item ID	Description	Manifest Qty	Manifest UOM	Billing Qty	Billing UOM	Unit Price	Amount
		08 Feb 2017						
W170792997 1	DISPSL / CNOS	Tanks 5,6,7,8,9, and 11 non-haz waste waters 123404OR	6	TON	5.380	TON	300.0000	$1,614.00
	FEE	Recovery Fee			1,614.000	EA	0.1000	$161.40
							SUBTOTAL	**$1,775.40**
							TAX	**$0.00**
							TASK TOTAL	**$1,775.40**

INVOICE
Invoice No 1001724468

REMIT TO:
Clean Harbors Env. Services
PO Box 3442
Boston, MA 02241-3442

EIN: 04-2698999

OFFICE:
Clean Harbors Environmental Service, Inc.
12402 SE Jennifer Street
Clackamas, OR 97015
(503) 785-0404

If you have any questions regarding this invoice, please contact your customer service representative at the telephone number listed above

SOLD TO:
Patricia Curtin
General Property Group LLC
PO Box 8158
Medford, OR 97501 - 0000

JOB SITE/GENERATOR:
Medford Plating
702 S Grape st
Medford, OR 97501

Job Description: Vacuum Truck Service and Disposal

**** Payable in USD funds ****

Last Service Date	Invoice No	Customer	Branch	Sales Order	Purchase Order	Terms
09 Feb 2017	1001724468	GE28782	FW	1700494230	No PO Needed	NET 15 DAYS

Last Service Date	Task	Task Type	Description	Total
09 Feb 2017	1700494230-001	GENERAL	Vacuum Truck Service and Disposal	$4,244.90
13 Feb 2017	1700494230-002	GENERAL	Mobilization	$4,710.20
08 Feb 2017	1700494230-003	DISPOSAL	Disposal	$1,775.40

	SUBTOTAL	**$10,730.50**
	TAX	**$0.00**
PLEASE PAY THIS AMOUNT ➡	**INVOICE TOTAL**	**$10,730.50**
REMIT PAYMENT BY ➡	**DUE DATE**	**01 Mar 2017**

Interest will be charged at a rate of 1.5% per month for all past due amounts.

Invoice Date: 14 Feb 2017

PLEASE RETURN A COPY OF INVOICE WITH PAYMENT - THANK YOU

ELWORTH Susan

From: LOBATO Dan
Sent: Wednesday, July 12, 2017 6:47 AM
To: ELWORTH Susan
Subject: FW: Medford Plating Shop Waste
Attachments: Medford Plating Shop.xlsx

disposal delayed from February 3, 2016 to March 10, 2017
characterize delayed 2/3/16 to 8/26/16

Finally, something!

From: Krening, Mark [mailto:MKrening@wm.com]
Sent: Friday, July 07, 2017 10:29 AM
To: LOBATO Dan <dan.lobato@state.or.us>
Subject: RE: Medford Plating Shop Waste

Good morning, Dan.

The estimated treatment and/or disposal costs for each waste stream on the table you sent me are included in the spreadsheet attached above.

Transportation of these waste streams is NOT included in the rates quoted on the spreadsheet. If you wanted Waste Management to provide transportation of these waste streams to Chemical Waste Management of the Northwest in Arlington, Oregon, the waste would make up a full truck load. We would provide a box van or flatbed truck to haul the waste for a rate of approximately $ 2,500.00 (lump sum) to Chem Waste.

I hope this helps you out. Let me know if you have any questions, or if you require any additional information. Thank you for the opportunity to provide these quotations.

Mark Krening
Senior Industrial Account Manager
Waste Management - Oregon

Phone: 503.519.3959

Per Dan - transportation would be estimated $2500

From: LOBATO Dan [mailto:dan.lobato@state.or.us]
Sent: Wednesday, July 05, 2017 1:35 PM
To: Krening, Mark <MKrening@wm.com>
Subject: [EXTERNAL] RE: Medford Plating Shop Waste

Hi Mark, attached you will find the list of what we have.

From: Krening, Mark [mailto:MKrening@wm.com]
Sent: Wednesday, July 05, 2017 12:51 PM
To: LOBATO Dan <LOBATO.Dan@deq.state.or.us>
Cc: Rodell, Nancy <nrodell@wm.com>
Subject: Medford Plating Shop Waste

Good afternoon, Dan.

EXHIBIT
A19 3pages

Per our phone conversation, please send me the inventory list of waste from the plating shop in Medford, and I will see if we can provide you with some budgetary transportation and disposal costs.

Thank you.

Mark Krening
Senior Industrial Account Manager
Waste Management - Oregon

Phone: 503.519.3959

Recycling is a good thing. Please recycle any printed emails.

Waste	*Container*	*Weight/Volume*	*Waste Codes*	*Disposal Determination*	*Disposal Cost*
Waste Oxidizing Liquid, Corrosive (Chromic Acid, Potassium Bichromate)	1 Drum	30 pounds	D001, D002, D007	Stabilization (Complex Mix)	$253.00 per 55-gal. Drum
Waste Carbon, Activated	1 Drum	62 pounds	D001	Incineration (INC01)	$566.00 per 55-gal. Drum
Waste Ammonium Persulfate	1 Drum	3 pounds	D001	Incineration (INC14)	$712.00 per 55-gal. Drum
Waste Corrosive Liquids, Toxic, NOS (Sulfuric Acid, Chromium Trioxide)	1 Drum	158 pounds	D002, D004, D005, D006, D007, D008	Stabilization (Complex Mix)	$253.00 per 55-gal. Drum
Waste Corrosive Liquids, Toxic, NOS (Ammonium hydroxide, sodium hydroxide)	1 Drum	70 pounds	D002, D004, D005, D006, D007, D008	Stabilization (Complex Mix)	$253.00 per 55-gal. Drum
Waste Environmentally Hazardous Substances, Liquid. NOS (Nickel Chloride)	1 Drum	36 pounds	None	Incineration (INC14)	$712.00 per 55-gal. Drum
Non Regulated (floor finish/sealers)	3 Drums	459 pounds	None	Solidification (STAB01)	$136.00 per 55-gal. Drum x3 $408
Non Regulated (nickel sulfate solution)	4 Drums	1,112 pounds	None	Solidification (STAB01)	$136.00 per 55-gal. Drum x4 $544
Waste Hydrochloric Acid Solution	3 Drums	665 pounds	D002	Solidification (STAB02)	$160.00 per 55-gal. Drum x3 $480
Waste Hydrochloric Acid Solution	1 Drums	90 pounds	D002	Solidification (STAB02)	$160.00 per 55-gal. Drum
Waste Toxic Solid, Inorganic, NOS (Cadmium Oxide Powder)	1 Drum	52 pounds	D006	Stabilization (Complex Mix)	$253.00 per 55-gal. Drum

Waste Corrosive Liquids, Toxic, NOS (Chromium, Lead)	2 Totes	5,280 pounds	D002, D004, D007, D008, F007	Stabilization (Complex Mix)	$1,139.00 per 275-gal. Tote
Waste Corrosive Liquids, Toxic, NOS (chromium)	2 Totes	4,920 pounds	D002, D007, F007	Stabilization (Complex Mix)	$1,139.00 per 275-gal. Tote
Waste Corrosive Liquids, Toxic, NOS (chromium, silver)	5 Totes	12,500 pounds	D002, D004, D006, D007, D011, F007	Stabilization (Complex Mix)	$1,139.00 per 275-gal. Tote
Sodium Hydroxide, solid	1 Drum	350 pounds	None	Direct Landfill (no treatment required)	$75.00 per 55-gal. Drum
Hazardous Waste Liquid, NOS (Chromium)	1 Totes	95 pounds	D007, F007	Stabilization (Complex Mix)	$1,139.00 per 275-gal. Tote
Hazardous Waste Solid, NOS (Cadmium)	1 Drum	121 pounds	D006, D007, F006	Stabilization (Complex Mix)	$253.00 per 55-gal. Drum
Environmentally Hazardous Substances, solid, NOS (mercury, fluorescent light tubes)	2 Drums	32 pounds	Universal Waste	Stabilization (Complex Mix)	$253.00 per 55-gal. Drum

Item H 000273

$1,139.00 x2 per 275-gal. Tote $2278
$1,139.00 x2 per 275-gal. Tote $2278
$1,139.00 x5 per 275-gal. Tote $5695
$253.00 x2 per 55-gal. Drum $506

$16,818
+ 2500 transportation
$19,318

Oregon
Kate Brown, Governor

Department of Environmental Quality
Office of Compliance and Enforcement
700 NE Multnomah Street, Suite 600
Portland, OR 97232
(503) 229-5382
FAX (503) 229-5787
TTY 711

January 4, 2018

Mark S. Bartholomew
Hornecker Cowling LLP
14 N. Central Avenue, Suite 104
Medford, OR 97501

RE: General Property Management, LLC
Remedial Action Order
Case no. LQ/HW-WR-2016-134

Dear Mr. Bartholomew:

On September 16, 2016, General Property Management LLC was served with a Remedial Action Order that required it to provide to DEQ documentation of the transportation and dispose of all solid and hazardous waste from the facility located at 702 S. Grape Street in Medford. On November 28, 2017, DEQ received that documentation and pursuant to Section IV, paragraph E, the Order is now terminated.

In a related matter, please have your client submit an annual generator's report by using the link previously provided to you. If they have difficulty in doing so, please contact Mary Fritzmann at 5032296968 for assistance.

Thank you for your cooperation.

Sincerely,

Sarah G. Wheeler, Acting Manager
Office of Compliance and Enforcement

cc: Dan Lobato, Eugene office, DEQ

EXHIBIT
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A20 1 page

ELWORTH Susan

From: FRITZMANN Mary
Sent: Monday, October 8, 2018 2:56 PM
To: ELWORTH Susan
Subject: RE: Former Medford Plating Site HW Report

Hi Susan,

The 2016 report was submitted 2/14/2018 and the 2017 report was submitted 2/27/2018.

Mary

Mary Fritzmann
Oregon DEQ | Hazardous Waste Policy and Program Development
503-229-6968 | Tues-Fri 6:30am-4pm | Alt Monday 6:30am-3pm

From: ELWORTH Susan
Sent: Monday, October 8, 2018 1:50 PM
To: FRITZMANN Mary <FRITZMANN.Mary@deq.state.or.us>
Subject: RE: Former Medford Plating Site HW Report

Mary – Can you tell me the date that all of the reports were submitted? I know that they did both 2016 and 2017 but cannot seem to find the exact date. Thanks! Susan

---

From: FRITZMANN Mary
Sent: Friday, March 02, 2018 8:55 AM
To: LOBATO Dan; ELWORTH Susan
Subject: RE: Former Medford Plating Site HW Report

Thanks Dan. For clarification. They reported as LQG in 2016 and that is the fee ($525) we decided not to assess. They reported as SQG for 2017 and that fee is $300 for SQG status and then ~$2100 for management fees.

I'll reply to them after your response.

Mary

Mary Fritzmann
Oregon DEQ | Hazardous Waste Policy and Program Development
503-229-6968 | Tues-Fri 6:30am-4pm | Alt Monday 6:30am-3pm

From: LOBATO Dan
Sent: Friday, March 2, 2018 7:13 AM
To: FRITZMANN Mary <FRITZMANN.Mary@deq.state.or.us>; ELWORTH Susan <elworth.susan@deq.state.or.us>
Subject: RE: Former Medford Plating Site HW Report

We never cite "operating a TSD" once they exceed 6000, the corrective action would be that they get a TSD permit and that is not going to happen (and theoretically report as a TSD!). So, we consider people a LQG.

I don't have any problem with them reporting as a SQG for 2016 and not paying the LQG fee to close th

EXHIBIT
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Am 9 pages

From: FRITZMANN Mary
Sent: Friday, March 02, 2018 7:08 AM
To: LOBATO Dan <LOBATO.Dan@deq.state.or.us>; ELWORTH Susan <elworth.susan@deq.state.or.us>
Subject: FW: Former Medford Plating Site HW Report

Hi Dan and Susan,

The HazWast.net database will not allow GPG to report as a LQG for 2017 – see attached. They reported as a SQG.

Dan, did you find any reference to LQG with accumulation amounts over 13,228lbs (6,000Kg)? The references in 40 CFR 262.34 all pertain to generating and if accumulation is exceeded then TSD standards kick in.

I emailed to GPG earlier that we would not charge the LQG fee for 2016 because I thought they would report as a LQG for 2017. Do we want to charge that LQG fee?

Thanks,
Mary

Mary Fritzmann
Oregon DEQ | Hazardous Waste Policy and Program Development
503-229-6968 | Tues-Fri 6:30am-4pm | Alt Monday 6:30am-3pm

From: OH Co [mailto:opropc@hotmail.com]
Sent: Thursday, March 1, 2018 8:11 PM
To: FRITZMANN Mary <Mary.FRITZMANN@state.or.us>
Subject: Re: Former Medford Plating Site HW Report

Dear Ms. Fritzmann,

Please see the attached Error Notice. The website would not allow us to file as a LQG. It says that we should have filed as a CEG. The annual report was rejected twice. Thank you.

Sincerely,

General Property Group LLC

From: FRITZMANN Mary <Mary.FRITZMANN@state.or.us>
Sent: Thursday, March 1, 2018 7:14 AM
To: 'OH Co'
Cc: LOBATO Dan
Subject: RE: Former Medford Plating Site HW Report

The generator status also has to do with the storage limit of waste. SQGs are allowed to generate up to 2,200lbs of HW per month and must ship every 180 days. That allows SQGs to accumulate up 13,200lbs of HW at one time. The actual amount is 13,228lbs due to the conversion from kilograms to pounds. Your site accumulated over that amount so that puts you into LQG status for 2017. I confirmed your 2017 status with Dan Lobato, the HW inspector.

I un-submitted your 2017 report so you can amend your status.

Please call me or Dan to discuss. Dan Lobato 541-686-7998

Thanks,
Mary

Mary Fritzmann
Oregon DEQ | Hazardous Waste Policy and Program Development
503-229-6968 | Tues-Fri 6:30am-4pm | Alt Monday 6:30am-3pm

From: OH Co [mailto:opropc@hotmail.com]
Sent: Wednesday, February 28, 2018 4:58 PM
To: FRITZMANN Mary <Mary.FRITZMANN@state.or.us>
Subject: Re: Former Medford Plating Site HW Report

Dear Ms. Fritzmann,

The online form shows the definition of a LQG as "Large Quantity Generator (Generates greater than 2,200 lbs/mo or more than 2.2 lbs of acute hazardous waste)." The SQG is defined as "Small Quantity Generator (Generates between 220-2,200 lbs/mo or more than 2,200 lbs accumulated onsite). Since we did not generate any of the waste, but it was accumulated onsite, we believed the SQG was the appropriate designation. Please clarify. Thank you.

Sincerely,

General Property Group LLC

From: FRITZMANN Mary <Mary.FRITZMANN@state.or.us>
Sent: Wednesday, February 28, 2018 3:28 PM
To: 'OH Co'
Subject: RE: Former Medford Plating Site HW Report

Hello GPG,

Your 2016 report is fine. For the 2017 report you need to report as a LQG because hazardous waste accumulation was greater than 13,228lbs. I will un-submit your 2017 report so you can make that change. Your RCRA ID# is withdrawn effective 12/31/2017.

There are fees associated with generating and managing hazardous waste. The LQG fee ($525) for 2016 will not be assessed per Susan Elworth. The fees for the 2017 report include the $525 for LQG status and various management fees for the amounts of waste shipped. The estimate on the invoice is $2,650. We will generate this invoice next week after your status correction and mail it to the fee contact listed on the 2017 report site ID form – Kevin Curtin, GPG LLC, Box 8158, Medford, OR.

Please let me know when you have amended to LQG status for 2017.

Thank you,
Mary

Mary Fritzmann
Oregon DEQ | Hazardous Waste Policy and Program Development
503-229-6968 | Tues-Fri 6:30am-4pm | Alt Monday 6:30am-3pm

From: OH Co [mailto:opropc@hotmail.com]
Sent: Tuesday, February 27, 2018 5:15 PM
To: FRITZMANN Mary <Mary.FRITZMANN@state.or.us>
Subject: Re: Former Medford Plating Site HW Report

Dear Ms. Fritzmann,

We made the changes you indicated to the annual reports for 2016 and 2017. Both have been submitted. Please confirm that there is nothing further we must do. Thank you.

Sincerely,

General Property Group LLC

From: FRITZMANN Mary <Mary.FRITZMANN@state.or.us>
Sent: Wednesday, February 21, 2018 8:20 AM
To: 'OH Co'
Subject: RE: Former Medford Plating Site HW Report

Thanks for the update. I apologize for the 2016 report problem. I just un-submitted it now so it's available for your amendments.

Thank you,
Mary

Mary Fritzmann
Oregon DEQ | Hazardous Waste Policy and Program Development
503-229-6968 | Tues-Fri 6:30am-4pm | Alt Monday 6:30am-3pm

From: OH Co [mailto:opropc@hotmail.com]
Sent: Tuesday, February 20, 2018 9:46 PM
To: FRITZMANN Mary <Mary.FRITZMANN@state.or.us>
Subject: Re: Former Medford Plating Site HW Report

Dear Ms. Fritzmann,

Thank you for your email. It does not appear that we can change the submitted 2016 annual report. Please let us know how to modify it. We added the Chromium 95lbs. (D007, F007) to the 2017 report. However, we were not able to change the 2016 report in order to add it. Additionally, when we make the corrections you indicated for B-2, B-3, and B-5, the corrections do not get saved. It reverts back to the submitted information. We made the corrections to the 2017 annual report, with the exception of changing the H141 codes. The disposal manifests show a code of H141. We do not see any other codes on any of the paperwork, so we have contacted the disposal company to obtain the proper codes. Thank you.

Sincerely,
General Property Group LLC

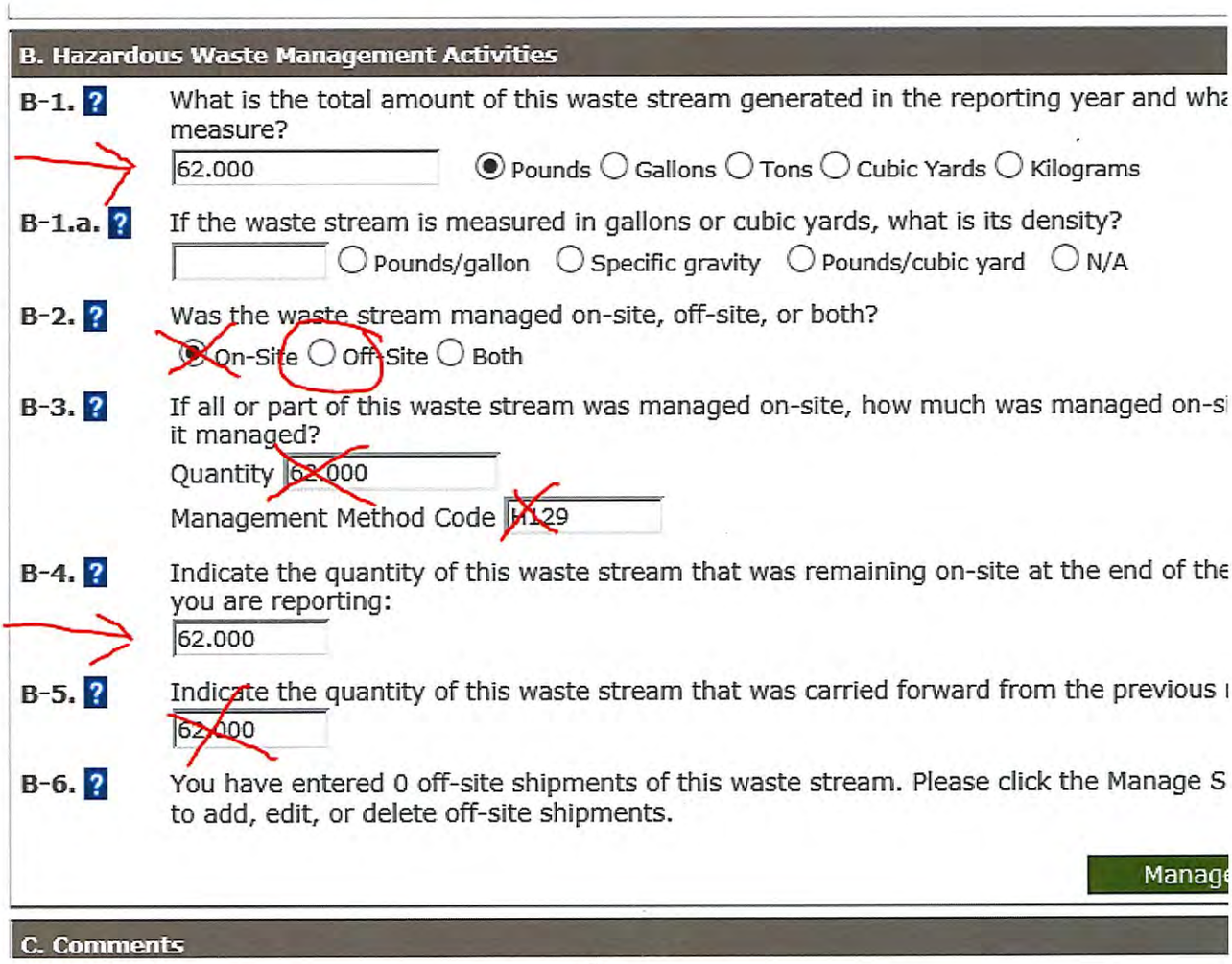
From: FRITZMANN Mary <Mary.FRITZMANN@state.or.us>
Sent: Wednesday, February 14, 2018 3:54 PM
To: 'OH Co'
Subject: RE: Former Medford Plating Site HW Report

Hello General Property Group LLC,

Sorry the delayed response.

Management code H141 describes a transfer of waste and is not a final substantive management code. If you know how the waste was managed/treated you can use that code. Otherwise you need to call the designated facility in section 8 on the manifest and ask them how the waste was managed. A list of management codes is attached.

For your 2016 report please edit the waste streams as noted below. For 2016 your waste was generated (B-1) and carried over into 2017 (B-4) and then managed off-site (B-2).



B. Hazardous Waste Management Activities

B-1. What is the total amount of this waste stream generated in the reporting year and wha measure?

62.000 ◉ Pounds ○ Gallons ○ Tons ○ Cubic Yards ○ Kilograms

B-1.a. If the waste stream is measured in gallons or cubic yards, what is its density?

○ Pounds/gallon ○ Specific gravity ○ Pounds/cubic yard ○ N/A

B-2. Was the waste stream managed on-site, off-site, or both?

◉ On-Site ○ Off-Site ○ Both

B-3. If all or part of this waste stream was managed on-site, how much was managed on-s it managed?

Quantity 62.000

Management Method Code H129

B-4. Indicate the quantity of this waste stream that was remaining on-site at the end of the you are reporting:

62.000

B-5. Indicate the quantity of this waste stream that was carried forward from the previous

62.000

B-6. You have entered 0 off-site shipments of this waste stream. Please click the Manage S to add, edit, or delete off-site shipments.

Manage

C. Comments

5

A waste stream from manifest 010466150FLE is missing. On page 2 waste stream# 6, hazardous waste liquid, Chromium 95lbs. (D007, F007) needs to be included on both 2016 and 2017 reports.

For your 2017 report edit the site ID form and click on 'Completion of RCRA waste activity' in section 1. This will withdraw and inactivate the RCRA ID# after you submit the data.
Prior to submitting your 2017 report, delete the two un-submitted 'withdraw' site ID forms from 3/31/2017 and 12/8/2017.

RCRA Site ID: ORD987201480 Former Medf
7(
MEDFC

Manage User Accounts | Generate PIN Letter | Open Pre-printed Site ID Form

Reporting Forms Log

Site ID Form History

Type	Status	Effective	Legal Owner	Submitted	E-Filer	
AR: RY2017	SQG	12/31/2017	General Property Group LLC	No	Yes	·Edi
Withdraw	SQG	12/8/2017	General Property Group LLC	No	Yes	·Edi
Withdraw	LQG	3/31/2017	General Property Group LLC	No	Yes	·Edi
Revised	LQG	2/8/2017	General Property Group LLC	Yes	Yes	·Ame
AR: RY2016	SQG	12/31/2016	General Property Group LLC	No	No	·Edi

These corrections/additions will complete the report process for 2016 and 2017.

An invoice for HW activity for 2017 will be mailed after review of your reports.

Call or email if you need any report assistance.

Thanks,
Mary

Mary Fritzmann
Oregon DEQ | Hazardous Waste Policy and Program Development
503-229-6968 | Tues-Fri 6:30am-4pm | Alt Monday 6:30am-3pm

From: OH Co [mailto:opropc@hotmail.com]
Sent: Tuesday, February 13, 2018 9:08 PM
To: FRITZMANN Mary <Mary.FRITZMANN@state.or.us>
Subject: Re: Former Medford Plating Site HW Report

Dear Ms. Fritzmann,

We have completed the annual report for 2016, and are just about done with the report for 2017 (showing the disposal of all of the waste). However, there is an error with regard to several of the shipments. The

manifests use the code H141, but when we try to validate the information, it says this is the wrong code. Please let us know how to proceed. Thank you.

Sincerely,

General Property Group LLC

From: FRITZMANN Mary <Mary.FRITZMANN@state.or.us>
Sent: Tuesday, February 6, 2018 3:18 PM
To: OH Co
Subject: Former Medford Plating Site HW Report

Hello General Property Group,

The DEQ Hazardous Waste webpage contains information to assist generators in reporting. The webpage below contains:

http://www.oregon.gov/deq/Hazards-and-Cleanup/hw/Pages/HW-Reporting.aspx

Hazardous Waste Reporting System - State of Oregon

www.oregon.gov

State of Oregon : Oregon.gov Home Page : State of Oregon ...

www.oregon.gov

Contact the Small Business Advocate for help navigating the rules and regulations of state and local government. Find voter information including voter registration ...



State of Oregon : Oregon.gov Home Page : State of Oregon ...

www.oregon.gov

Contact the Small Business Advocate for help navigating the rules and regulations of state and local government. Find voter information including voter registration ...



State of Oregon : Oregon.gov Home Page : State of Oregon ...

www.oregon.gov

Contact the Small Business Advocate for help navigating the rules and regulations of state and local government. Find voter information including voter registration ...

HazWaste.net is DEQ's online system for submitting the annual hazardous waste report. All small and large quantity hazardous waste generators are required to submit ...

A link to the HazWaste.net database
Form codes
Source codes
Management method codes
Waste generation and management answer sheet (mimics the online report GM form)
Generator fee information
The "Help with Getting Started" link contains instructions for online reporting

You are required to submit a report for 2016 and 2017.

The 2016 report will contain all waste streams generated and carried over into 2017.

The 2017 report will contain those same waste streams with the amounts carried over from 2016 but no waste generated. This report will also contain the manifest information for each waste shipped.

Please call or email if you have any questions regarding the online reporting. The reports are due March 1, 2018.

Thanks,
Mary

Mary Fritzmann
Oregon DEQ | Hazardous Waste Policy and Program Development
503-229-6968 | Tues-Fri 6:30am-4pm | Alt Monday 6:30am-3pm

ELWORTH Susan

From: FRITZMANN Mary
Sent: Wednesday, May 23, 2018 8:32 AM
To: FULLER Brian; LOBATO Dan
Cc: ELWORTH Susan
Subject: Former Medford Plating

FYI - General Property Group paid the HW reporting invoice ($2,422.53) on May 8, 2018.

Mary Fritzmann
Oregon DEQ | Hazardous Waste Policy and Program Development
503-229-6968 | Tues-Fri 6:30am-4pm | Alt Monday 6:30am-3pm



BEFORE THE ENVIRONMENTAL QUALITY COMMISSION

OF THE STATE OF OREGON

IN THE MATTER OF: GENERAL PROPERTY GROUP LLC	LIST OF AUTHORITIES No. LQ/HW-WR-2016-179 OAH Case No. 2018-ABC-01716

Under OAR 340-100-0002, the Environmental Quality Commission adopted by reference the regulations governing the management of hazardous waste, including its generation, transportation, treatment, storage, recycling and disposal, as set forth in 40 C.F.R. Parts 260 to 268, 270, 273 and Subpart A and Subpart B of Part 124. Additionally, the comment to that rule states that "the Department uses the federal preamble accompanying the federal regulations and federal guidance as a basis for regulatory decision-making." As such, the following list of authorities is applicable to DEQ's application of the regulations at issue in this case. For further support, please see: Oil Re-Refining Company vs. Environmental Quality Commission, SC S063590, February 9, 2017.

1. RCRA Orientation Manual 2014, Chapters I, II, and III
2. Checklist to Assist in Evaluating Whether Commercial Chemical Products are Solid and Hazardous Waste under the Resource Conservation and Recovery Act (May 14, 2013)
3. Managing your Hazardous Waste – A Guide for Small Businesses (December 2001)
4. Hazardous Waste Generator Regulations – A User-Friendly Reference Document (August 2012)
5. Introduction to Generators (September 2005)
6. RCRA Faxback #11161 (June 3, 1986)
7. RCRA Faxback #11028 (August 3, 1983)
8. RCRA Online #14700 (January 2004)
9. RCRA Faxback #11013 (May 20, 1981)

10. RCRA Faxback #14069 (March 12, 1997)
11. RCRA Faxback #11913 (August 10, 1995)
12. Federal Register, Vol. 45, No. 225, page 76621 (November 19, 1980)
13. Federal Register, Vol. 45, No. 98, pages 33090-33095 (May 19, 1980)
14. Federal Register, Vol. 45, No. 212, pages 72024-72027 (October 30, 1980)
15. RCRA Online #11935
16. RCRA Online #11424

Attachment B3
Sept. 26-27, 2019, EQC meeting
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RCRA

Orientation Manual 2014

Resource Conservation and Recovery Act



RCRA Orientation Manual 2014

United States
Environmental Protection Agency
Solid Waste and Emergency Response (5305W)
Washington, DC 20460

Recycled/Recyclable—Printed with Vegetable Oil Based Inks on 100% (Minimum 50% Postconsumer) Recycled Paper

tabbies
EXHIBIT
Item H 000289

RCRA Orientation Manual

THIS MANUAL WAS DEVELOPED BY:

THE U.S. ENVIRONMENTAL PROTECTION AGENCY
OFFICE OF RESOURCE CONSERVATION AND RECOVERY
PROGRAM MANAGEMENT, COMMUNICATIONS, AND ANALYSIS OFFICE
1200 Pennsylvania Avenue, N.W.
WASHINGTON, DC 20460

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FOREWORD

This manual supersedes the *2008 RCRA Orientation Manual*. The *Manual* has proven to be a popular and valuable resource for anyone working with EPA's solid and hazardous waste management program. Since the manual's initial publication in 1990, the RCRA program has evolved dramatically. As a result of changes in the dynamics of solid and hazardous waste management, as well as changes in the regulatory expectations and demands of government, public, and private entities, the RCRA program has been modified through new regulations, policies, Agency-wide initiatives, and Congressional mandates. The *Manual's* revision reflects the progress that has been made in the program and documents its changes.

At this time, the RCRA Subtitle C hazardous waste regulatory framework is completely in place, and almost all states are implementing large portions of the program. EPA has achieved significant progress in establishing provisions to fully protect both ground water and air resources. Under Subtitle D, the establishment of municipal solid waste landfill criteria ensures adequate protection of human health and the environment from solid waste disposal practices. In addition, the Agency has significantly expanded initiatives to reduce the amount of waste generated and to make waste management more efficient.

Information about RCRA's past, present, and future are contained in two other documents. For a look ahead, *Sustainable Materials Management: The Road Ahead* suggests a roadmap for the future based on materials management—fulfilling human needs and prospering, while using less materials, reducing toxics and recovering more of the materials used. For a look back at past successes, the report *25 Years of RCRA: Building on Our Past to Protect Our Future* commemorates RCRA's 25th Anniversary in October 2001 and highlights the accomplishments of RCRA's protective framework to date. In addition, *RCRA: Reducing Risk from Waste* provides an overview of RCRA including: the history of RCRA, the role of EPA and the states, the regulated community, and municipal and industrial waste issues.

CHAPTER I

INTRODUCTION TO THE RESOURCE CONSERVATION AND RECOVERY ACT

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OVERVIEW

The Resource Conservation and Recovery Act (RCRA), an amendment to the Solid Waste Disposal Act, was enacted in 1976 to address the huge volumes of municipal and industrial solid waste generated nationwide.

The goals set by RCRA are:

- To protect human health and the environment from the potential hazards of waste disposal
- To conserve energy and natural resources
- To reduce the amount of waste generated
- To ensure that wastes are managed in an environmentally sound manner.

RCRA also regulates **underground storage tanks (USTs)** that store petroleum or certain chemical products under Subtitle I. Requirements exist for the design and operation of these tanks and the development of systems to prevent accidental spills. Examples of facilities using these tanks include petroleum refineries, chemical plants, and commercial gas stations.

The Medical Waste Tracking Act of 1988 was a 2-year demonstration program that expired in June 1991. It created a Subtitle J program designed to track **medical waste** from generation to disposal. At present, no federal EPA tracking regulations are in effect for medical waste, but many states have adopted their own programs.

The Comprehensive Environmental Response, Compensation, and Liability Act (known as Superfund or CERCLA) is a related statute that deals with cleaning up inactive and abandoned hazardous waste sites. RCRA, on the other hand, deals with materials that are currently destined for disposal or recycling.

RCRA: WHAT IT IS

The term RCRA is often used interchangeably to refer to the law, regulations, and EPA policy and guidance. The law describes the waste management program mandated by Congress that gave EPA authority to develop the RCRA program. EPA regulations carry out the Congressional intent by providing explicit, legally enforceable requirements for waste management. These regulations can be found in Title 40 of the Code

of Federal Regulations (CFR), Parts 239 through 282. EPA guidance documents and policy directives clarify issues related to the implementation of the regulations. These three elements are the primary parts of the RCRA program.

The Act

The Act provides, in broad terms, general guidelines for the waste management program envisioned by Congress (e.g., EPA is directed to develop and promulgate criteria for identifying hazardous waste). The Act also provides the EPA Administrator (or his or her representative) with the necessary authority to develop these broad standards into specific requirements that implement the law.

THE ACT

The law that describes the kind of waste management program that Congress wants to establish. The Act also provides the Administrator of EPA (or his or her designee) with the authority to implement the program.

What we commonly know as RCRA, or the Act, is actually a combination of the first federal solid waste statutes and all subsequent amendments (see Figure I-1). In 1965, Congress enacted the Solid Waste Disposal Act, the first statute that specifically focused on improving solid waste disposal methods. The Solid Waste Disposal Act established economic incentives for states to develop planning, training, research, and demonstration projects for the management of solid waste. The Act was amended in 1976 by RCRA, which substantially remodeled the nation's solid waste management system and laid out the basic framework of the current hazardous waste management program.

The Act, which has been amended several times since 1976, continues to evolve as Congress alters it to reflect changing waste management needs. The Act was amended significantly on November 8, 1984, by the Hazardous and Solid Waste Amendments (HSWA), which expanded the scope and requirements of RCRA. HSWA was created largely in response to citizen concerns that existing methods of hazardous waste disposal, particularly land disposal, were not safe. Because of their significance and differences in their implementation, HSWA provisions are emphasized throughout this manual. Congress also revised RCRA in 1992 by passing the Federal Facilities Compliance Act, which strengthened the authority to enforce RCRA at federal facilities. In addition, the Land Disposal Program Flexibility Act of 1996 amended RCRA to provide regulatory flexibility for the land disposal of certain wastes.

Figure I-1: The Evolution of Significant RCRA Legislation



Today, the Act consists of 10 subtitles (see Figure I-2). Subtitles A, B, E, F, G, H, I, and J outline general provisions; authorities of the EPA Administrator; duties of the Secretary of Commerce; federal responsibilities; miscellaneous provisions; research, development, demonstration, and information requirements; underground storage tanks; and medical waste tracking. Other subtitles lay out the framework for the two major programs that comprise RCRA: Subtitle C (the hazardous waste management program) and Subtitle D (the solid waste program).

The text of the Act can be found at www.epa.gov/lawsregs/laws.

Regulations

The Act includes a Congressional mandate directing EPA to develop a comprehensive set of regulations. **Regulations**, or **rulemakings**, are issued by an agency, such as EPA, that translate the general mandate of a statute into a set of requirements for the Agency and the regulated community.

Regulations are developed by EPA in an open and public manner according to an established process. When a regulation is formally proposed,

Figure I-2: Outline of the Act

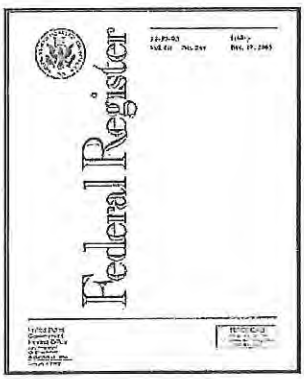
Subtitle	Provisions
A	General Provisions
B	Office of Solid Waste; Authorities of the Administrator and Interagency Coordinating Committee
C	Hazardous Waste Management
D	State or Regional Solid Waste Plans
E	Duties of the Secretary of Commerce in Resource and Recovery
F	Federal Responsibilities
G	Miscellaneous Provisions
H	Research, Development, Demonstration, and Information
I	Regulation of Underground Storage Tanks
J	Standards for the Tracking and Management of Medical Waste

it is published in an official government document called the *Federal Register* to notify the public of EPA's intent to create new regulations or modify existing ones. EPA provides the public, which includes the potentially regulated community, with an opportunity to submit comments. Following an established comment period, EPA may revise the proposed rule based on both an internal review process and public comments.

REGULATIONS

Legal mechanisms that establish standards or impose requirements as mandated by the Act. RCRA regulations are promulgated by EPA, published in the *Federal Register*, and codified in the Code of Federal Regulations.

The final regulation is published, or promulgated, in the *Federal Register*. Included with the regulation is discussion of the Agency's rationale for the regulatory approach, known as preamble language. Final regulations are compiled annually and incorporated in the Code of Federal Regulations (CFR) according to a highly structured format based on the topic of the regulation. This latter process is called **codification**, and each CFR title corresponds to a different regulatory authority. For example, EPA's regulations are in Title 40 of the CFR. The codified RCRA regulations can be found in Title 40 of the CFR, Parts 239-282. These regulations are often cited as 40 CFR, with the part listed afterward (e.g., 40 CFR Part 264), or the part and section (e.g., 40 CFR §264.10).



Although this relationship between an Act and the regulations is the norm, the relationship between HSWA and its regulations differs slightly. Congress, through HSWA, not only provided EPA with a general mandate to promulgate regulations, but also placed explicit instructions in the Statute to develop certain regulations. Many of these requirements are so specific that EPA incorporated them directly into the regulations. HSWA is all the more significant because of the ambitious schedules that Congress established for implementation of the Act's provisions. Another unique aspect of HSWA is that it established **hammer provisions**, or statutory requirements that would go into effect automatically (with the force of regulations) if EPA failed to issue regulations by certain dates.



The interpretation of statutory language does not end with the codification of regulations. EPA further clarifies the requirements of the Act and its regulations through guidance documents and policy.

The RCRA regulations can be found at www.epa.gov/epawaste/laws-regs.

■ Guidance and Policy

Guidance documents are issued by EPA primarily to provide direction for implementing and complying with regulations. They are essentially "how to" documents. For example, the regulations in 40 CFR Part 270 detail what is required in a permit application for a hazardous waste management facility, while the guidance for this Part suggests how to evaluate a permit application to ensure

that all information has been included. Guidance documents also elaborate on the Agency's interpretation of the requirements of the Act.

GUIDANCE = *HOW TO*

Documents developed and issued by EPA to provide instructions on how to implement the requirements of either the Act or regulations.

Policy statements, on the other hand, specify operating procedures that should generally be followed. They are mechanisms used by EPA program offices to outline the manner in which the RCRA programs are implemented. For example, EPA's Office of Resource Conservation and Recovery (ORCR) may issue a policy outlining what actions should generally be taken to achieve RCRA corrective action cleanup goals. In many cases, policy statements are addressed to the staff working on implementation, but they may also be addressed to the regulated community.

POLICY = *SHOULD DO*

Statements developed by EPA outlining a position on a topic or giving instructions on how a procedure should be conducted.

RCRA: HOW IT WORKS

To provide an overall perspective of how RCRA works, each waste program is briefly summarized here. Later, the Subtitle D (solid waste) program is discussed before the Subtitle C (hazardous waste) program. Although this is alphabetically out of order, the structure is designed for better understanding by the reader.

■ Subtitle D—Solid Waste

RCRA Subtitle D focuses on state and local governments as the primary planning, regulating, and implementing entities for the management of nonhazardous solid waste, such as household garbage and nonhazardous industrial solid waste. EPA provides these state and local agencies with information, guidance, policy, and regulations through workshops and publications to help states and the regulated community make better decisions in dealing with waste issues, to reap the environmental and economic benefits of source reduction and recycling of solid wastes, and to require upgrading or closure of all environmentally unsound disposal units. In order to promote the use of safer units for solid waste disposal, EPA developed federal criteria for the proper design and operation of **municipal solid waste landfills** (MSWLFs) and other solid waste disposal facilities. Many states have adopted these criteria into their state solid waste programs.

■ Subtitle C—Hazardous Waste

RCRA Subtitle C establishes a federal program to manage hazardous wastes from **cradle to grave**. The objective of the Subtitle C program is to ensure that hazardous waste is handled in a manner that protects human health and the environment. To this end, there are Subtitle C regulations for the generation, transportation, and treatment, storage, or disposal of hazardous wastes. In practical terms, this means regulating a large number of hazardous waste handlers. As of 2009, EPA had on record approximately 460 treatment, storage, and disposal facilities (TSDFs); 18,000 transporters; and 14,700 large quantity generators (LQGs).

The Subtitle C program has resulted in perhaps the most comprehensive regulations EPA has ever developed. The regulations first identify the criteria to determine which solid wastes are hazardous, and then establish various requirements for the three categories of hazardous waste handlers: generators, transporters, and TSDFs. In addition, the Subtitle C regulations set technical standards for the design and safe operation of TSDFs. These standards are designed to minimize the release of hazardous waste into the environment. Furthermore, the regulations for TSDFs serve as the basis for developing and issuing the permits required by the Act for each facility. Permits are essential to making the Subtitle C regulatory program work, since it is through the permitting process that EPA or a state applies the technical standards to TSDFs.

One of the primary differences between Subtitle C and Subtitle D is the type of waste each regulates. Subtitle C regulates only hazardous waste, a subset of solid waste, whereas Subtitle D primarily regulates nonhazardous solid waste.

WHO IS INVOLVED IN RCRA?

The RCRA program involves many people and organizations, all with varying roles. Congress and the President set overall national direction for the RCRA program through amendments to the Act. EPA, through its Office of Solid Waste and Emergency Response (OSWER), translates this direction into operating programs by developing regulations, guidance, and policy.

Site-specific implementation of the RCRA program is the responsibility of the EPA regions and states. Hazardons and solid waste programs have mechanisms through which states can exercise key program responsibilities. Initial federal responsibilities vary among the different programs.

Under Subtitle D, EPA established minimum criteria for MSWLFs and required each state to gain approval for their MSWLF permitting program through an approval process that ensures that the state's program meets minimum federal criteria. Most of the Subtitle D solid waste program is overseen by the states, and compliance is assured through state-issued permits.

State involvement in the Subtitle C program is similar to involvement in the Subtitle D program. Under Subtitle C, in the authorization process, EPA reviews a state's hazardous waste program and, if it is at least as stringent as the federal program, grants the state authority to implement its own program in lieu of the federal program. These states are known as authorized states.

The **regulated community** that must understand and comply with RCRA and its regulations is a large, diverse group. It includes not only facilities typically thought of as hazardous waste generators, such as industrial manufacturers, but also government agencies and small businesses, such as a local dry cleaner generating small amounts of hazardous solvents, or a gas station with underground petroleum tanks.

Lastly, the general public plays a key role in RCRA by providing input and comments during almost every stage of the program's development and implementation, through rulemaking participation and comments on TSDF permits.

RCRA TODAY

Ensuring responsible waste management practices is a far-reaching and challenging undertaking that engages EPA Headquarters and regions, state agencies, tribes, and local governments, as well as everyone who generates waste. EPA has largely focused on building the hazardous and municipal solid waste programs and fostering a strong societal commitment to recycling and pollution prevention. Since the enactment of RCRA, EPA has built a comprehensive cradle-to-grave regulatory program for hazardous waste management; authorized forty-eight states to implement RCRA; set national baseline standards for municipal solid waste landfills; identified priority pollutants on which to focus hazardous waste reduction efforts; worked in successful partnerships to reduce waste, promote recycling, and build markets for recycled-content products; and provided education and technical assistance.

■ Looking to the Future

In the future, EPA will maintain and build on the effective hazardous and municipal waste programs already in place. At the same time, EPA must increase efforts in resource conservation, sustainability, and safe materials management. Safe waste management and cleanup remain the critical foundation to protect human health and the environment. EPA now relies on a largely complete regulatory structure for hazardous and municipal waste and proven implementation programs to ensure safe management. EPA will assess potential threats from wastes and address critical program improvements in the most effective manner, either through regulatory changes, cooperative voluntary efforts, or other means.

Striving for sustainability and materials management are long-term challenges. EPA will look beyond the traditional definition of waste to determine how programs fits into, and can benefit from, a life cycle approach to ensure that chemicals and materials are managed protectively, in all stages of use and discard. In addition, waste issues must be considered beyond the nation's boundaries to maximize environmental results and achieve sustainability and safe materials management. A top

priority is to reduce the generation of industrial and municipal waste and to conserve resources while reducing environmental impacts. Through the Resource Conservation Challenge (RCC), EPA is undertaking a broad spectrum of efforts to encourage waste minimization, pollution prevention, energy recovery, and recycling. Where necessary, this may require refining the current regulatory system. However, the scope of EPA's regulatory work is narrower and relies more on improving compliance with the existing regulations. There are only two remaining rulemakings to complete the hazardous waste regulatory structure and 1984 statutory mandates. Other regulatory activities are primarily targeted to simplify and add flexibility and facilitate resource conservation and pollution prevention.

EPA believes a key to success for RCRA and for improving the corrective action program will be building new partnerships and coalitions with government agencies, businesses, interest groups, and the public. While EPA has made great strides in working in true partnership with the states, more remains to be done. The goal of faster, more efficient cleanups will continue, and new corrective action goals will focus on the activities that precede completion of final corrective action, remedy selection, and construction. Encouraging facilities to achieve corrective action goals helps move the program toward success and provides increased protection against exposure to contaminants that have been released from corrective action facilities.

■ Conserving Natural Resources

EPA will continue to help society reduce the amount and toxicity of wastes that facilities generate and promote safe recycling and energy recovery. A successful materials management approach will assess risks and ensure that harmful chemicals do not enter the environment throughout the life cycle of material handling. Resources that simply become waste are not available for future generations, and extraction and harvesting of resources can have long-term environmental impacts. Despite protective waste management programs, toxic chemicals can still find their way into the environment throughout the life cycle of materials. Persistent, bioaccumulative, and toxic chemicals released into the environment can present long-term risks to human health and the environment, even in small quantities. The challenge is to mobilize industries, state and local agencies, communities, and the public through collaborative efforts and by harnessing regulatory incentives to minimize threats to human health and the environment. The RCC will be the main vehicle by which EPA works to meet this challenge. The main objectives for conserving natural resources are reducing priority chemicals, stimulating product stewardship and recycling, fostering the transition to materials management, forming partnerships, promoting recycling and safe energy recovery from waste, and engaging consumers and under-served communities.



■ Preventing Future Waste Problems

EPA will sustain and enhance effective state programs for hazardous, municipal, and industrial waste management and EPA regional implementation to ensure protective management tailored to the full spectrum of wastes that facilities generate. The large universe of waste generators and treatment, storage, and disposal facilities (TSDFs) subject to hazardous and solid waste requirements presents a substantial challenge. EPA intends to identify unaddressed significant risks from current and new wastes and waste management practices and incorporate flexibility, and ensure that all wastes are managed protectively without unnecessary costs. The main objectives for preventing future waste problems are setting national goals for hazardous waste management facilities, supporting state implementation of hazardous and solid waste programs, building tribal capacity, maintaining and updating the federal regulatory programs, assisting industries to comply and move beyond compliance, engaging stakeholders, and improving waste and materials management.

■ Cleaning up Problems from Past Practices

EPA will continue to facilitate protective, practical completion of cleanups at hazardous waste TSDFs and help develop and/or strengthen state and tribal waste cleanup programs. These cleanups present a challenge because several thousand RCRA facilities have potentially released hazardous waste to the environment. In addition, cleanup may be costly and can take considerable time. EPA hopes to achieve timely cleanups at high priority facilities and create an environment in which all stakeholders can work together using a variety of tools and cleanup programs. The main objectives for cleaning up problems from past practices are controlling human exposures and groundwater releases, promoting mechanisms for flexible cleanups, supporting a "one cleanup program" framework, promoting revitalization and reuse, and supporting the tribal open dump cleanup and prevention program.

OUTLINE OF THE MANUAL

The remainder of this manual details the three RCRA programs briefly discussed in this introduction. The manual also describes two other components of RCRA: the federal procurement and medical waste tracking programs. In addition, the manual discusses the interrelationships between RCRA's Subtitle C program and other environmental statutes, as well as RCRA's public participation provisions. To supplement this technical description of the RCRA regulatory program, the manual also contains appendices that present important RCRA forms and paperwork requirements and a glossary (for the reader's convenience, the terms that appear in this glossary have been bolded throughout the text).

SUMMARY

RCRA was passed in 1976, as an amendment to the Solid Waste Disposal Act of 1965, to ensure that solid wastes are managed in an environmentally sound manner. The goals of RCRA have changed over time as EPA has implemented the program. The current goals are:

- To protect human health and the environment from the potential hazards of waste disposal
- To conserve energy and natural resources
- To reduce the amount of waste generated
- To ensure that wastes are managed in an environmentally sound manner
- Prevent future problems caused by irresponsible waste management
- Clean up releases of hazardous waste in a timely, flexible, and protective manner.

To achieve these goals, EPA will rely heavily on three programs:

- The current regulatory framework already in place
- Collaborative partnerships with stakeholders, such as those developed under the Resource Conservation Challenge
- The RCRA corrective action program.

There are several components of RCRA:

- Act – The law that describes the kind of waste management program that Congress wants to establish. The Act also provides the Administrator of EPA (or his or her designee) with the authority to implement the Act.
- Regulations – The legal mechanism that establishes standards or imposes requirements as mandated by the Act. RCRA regulations are promulgated by EPA, published in the *Federal Register*, and codified in the CFR.
- Guidance – Documents developed and issued by EPA to provide instructions on how to implement requirements of either the Act or regulations.
- Policy – Statements developed by EPA outlining a position on a topic or giving instructions on how a procedure should be conducted.

RCRA continues to change with amendments to the Statute. HSWA, in particular, significantly

expanded both the scope and detailed requirements of the Act, especially in the context of the land disposal of hazardous wastes. Congress, EPA, states, regulated entities, and the general public are involved in developing and implementing the RCRA program.

EPA continues to improve the RCRA program by using measurable results to identify and promote new initiatives, such as encouraging waste minimization, improving the federal/state partnership in the hazardous waste program, and aiding state and local governments in reaping the environmental and economic benefits of source reduction and recycling.

CHAPTER II

MANAGING NONHAZARDOUS SOLID WASTE

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OVERVIEW

Congress enacted the Solid Waste Disposal Act of 1965 to address the growing quantity of solid waste generated in the United States and to ensure its proper management. Subsequent amendments to the Solid Waste Disposal Act, such as RCRA, have substantially increased the federal government's involvement in solid waste management.

During the 1980s, solid waste management issues rose to new heights of public concern in many areas of the United States because of increasing solid waste generation, shrinking disposal capacity, rising disposal costs, and public opposition to the siting of new disposal facilities. These solid waste management challenges continue today, as many communities are struggling to develop cost-effective, environmentally protective solutions. The growing amount of waste generated has made it increasingly important for solid waste management officials to develop strategies to manage wastes safely and cost effectively.

RCRA encourages environmentally sound solid waste management practices that maximize the reuse

WHAT IS SOLID WASTE?

- Garbage
- Refuse
- Sludges from waste treatment plants, water supply treatment plants, or pollution control facilities
- Industrial wastes
- Other discarded materials, including solid, semisolid, liquid, or contained gaseous materials resulting from industrial, commercial, mining, agricultural, and community activities.

of recoverable material and foster resource recovery. Under RCRA, EPA regulates hazardous solid wastes and may authorize states to do so. Nonhazardous solid waste is predominately regulated by state and local governments. EPA has, however, promulgated some regulations pertaining to nonhazardous solid waste, largely addressing how disposal facilities should be designed and operated. Aside from regulation of hazardous wastes, EPA's primary role in solid waste management includes setting national goals, providing leadership and technical assistance, and developing guidance and educational materials. The Agency has played a major role in this program by providing tools and information through policy and guidance to empower local governments, business, industry, federal agencies, and individuals to make better decisions in dealing with solid waste issues. The Agency strives to motivate behavioral change in solid waste management through both regulatory and nonregulatory approaches.

This chapter presents an outline of the RCRA nonhazardous solid waste program. In doing so, it defines the terms solid waste and municipal solid waste, and it describes the role EPA plays in assisting waste officials in dealing with solid waste management problems. The remainder of this chapter will use the term "solid waste" to mean only nonhazardous solid waste, excluding hazardous waste regulated under RCRA Subtitle C. The chapter will provide an overview of the criteria that EPA has developed for solid waste landfills and will introduce some Agency initiatives designed to promote proper and efficient solid waste management.

DEFINITION OF SOLID WASTE

RCRA defines the term **solid waste** as:

- Garbage (e.g., milk cartons and coffee grounds)
- Refuse (e.g., metal scrap, wall board, and empty containers)
- Sludges from waste treatment plants, water supply treatment plants, or pollution control facilities (e.g., scrubber slags)
- Industrial wastes (e.g., manufacturing process wastewaters and nonwastewater sludges and solids)
- Other discarded materials, including solid, semisolid, liquid, or contained gaseous materials resulting from industrial, commercial, mining, agricultural, and community activities (e.g., boiler slags).

The definition of solid waste is not limited to wastes that are physically solid. Many solid wastes are liquid, while others are semisolid or gaseous.

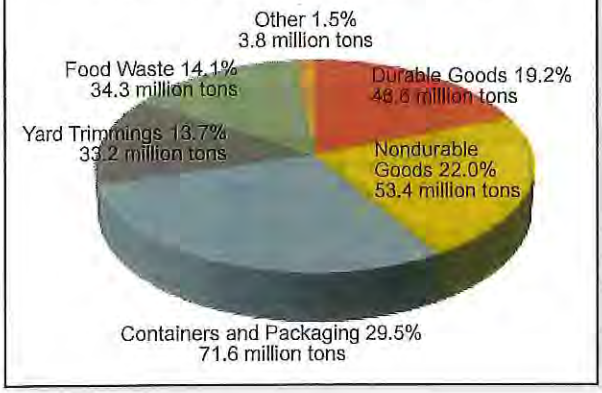
The term solid waste, as defined by the Statute, is very broad, including not only the traditional nonhazardous solid wastes, such as municipal garbage and industrial wastes, but also hazardous wastes. Hazardous waste, a subset of solid waste, is regulated under RCRA Subtitle C. (Hazardous waste is fully discussed in Chapter III.) For purposes of regulating hazardous wastes, EPA established by regulation a separate definition of solid waste. This definition is discussed in Chapter III and pertains only to hazardous waste regulations.

MUNICIPAL SOLID WASTE

Municipal solid waste is a subset of solid waste and is defined as durable goods (e.g., appliances, tires, batteries), nondurable goods (e.g., newspapers, books, magazines), containers and packaging, food wastes, yard trimmings, and miscellaneous organic wastes from residential, commercial, and industrial nonprocess sources (see Figure II-1).

Municipal solid waste generation has grown steadily over the past 49 years from 88 million tons per year (2.7 pounds per person per day) in 1960, to 243 million tons per year (4.3 pounds per person per

Figure II-I: Products Generated in MSW by Weight, 2009 (total weight – 243 million tons)



day) in 2009. While generation of waste has grown steadily, recycling has also greatly increased. In 1960, only about 7 percent of municipal solid waste was recycled. By 2009, this figure had increased to 33.8 percent.

To address the increasing quantities of municipal solid waste, EPA recommends that communities adopt "integrated waste management" systems tailored to meet their needs. The term "integrated waste management" refers to the complementary use of a variety of waste management practices to safely and effectively handle the municipal solid waste stream. An integrated waste management system will contain some or all of the following elements: source reduction, recycling (including composting), waste combustion for energy recovery, and/or disposal by landfilling (see Figure II-2). In designing systems, EPA encourages communities to consider these components in a hierarchical sequence. The hierarchy favors source reduction to reduce both the volume and toxicity of waste and to increase the useful life of manufactured products. The next preferred tier in the hierarchy is recycling, which includes composting of yard and food wastes. Source reduction and recycling are preferred over combustion and/or landfilling, because they divert waste from the third tier and they have positive impacts on both the environment and economy. The goal of EPA's approach is to use a combination of all these methods to safely and effectively manage municipal solid waste. EPA recommends that communities tailor their systems from the four components to meet their specific needs, looking first to source reduction, and second to recycling as preferences to combustion and/or landfilling.

■ Source Reduction

Rather than managing waste after it is generated, **source reduction** changes the way products are made and used in order to decrease waste generation. Source reduction, also called waste prevention, is defined as the design, manufacture, and use of products in a way that reduces the quantity and toxicity of waste produced when the products reach the end of their useful lives. The ultimate goal of source reduction is to decrease the amount and the toxicity of waste generated. Businesses, households, and all levels of government can play an active role in source reduction. Businesses can manufacture products with packaging that is reduced in both volume and toxicity. They also can reduce waste by altering their business practices (e.g., reusing packaging for shipping, making double-sided copies, maintaining equipment to extend its useful life, using reusable envelopes). Community residents can help reduce waste by leaving grass clippings on the lawn or composting them with other yard trimmings in their backyards, instead of bagging such materials for eventual disposal. Consumers play a crucial role in an effective source reduction program by purchasing products having reduced packaging or that contain reduced amounts of toxic constituents. This purchasing subsequently increases the demand for products with these attributes.

■ Recycling

Municipal solid waste **recycling** refers to the separation and collection of wastes, their subsequent transformation or remanufacture into usable or marketable products or materials, and the purchase of products made from recyclable materials. In 2009, 33.8 percent (82.0 million tons) of the municipal solid waste generated in the United States was recycled (see Figure II-3). Solid waste recycling:

- Preserves raw materials and natural resources
- Reduces the amount of waste that requires disposal

Figure II-2: The Solid Waste Management Hierarchy



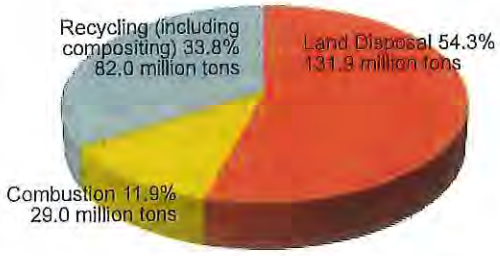
- Reduces energy use and associated pollution
- Provides business and job opportunities
- Reduces pollution associated with use of virgin materials.

Solid waste recycling also reduces greenhouse gas (GHG) emissions. For example, using the Waste Reduction Model (WARM), it can be calculated that the GHG savings of recycling 1 short ton of aluminum instead of landfilling it would be 3.71 metric tons of carbon equivalent (MTCE).

Communities can offer a wide range of recycling programs to their businesses and residents, such as drop-off centers, curbside collection, and centralized composting of yard and food wastes.

Additional information about recycling of common wastes and materials can be found at www.epa.gov/epawaste/conserve/materials.

Figure II-3: Management of MSW in the U.S., 2009 (total weight – 243 million tons)



Composting processes are designed to optimize the natural decomposition or decay of organic matter, such as leaves and food. Compost is a humus-like material that can be added to soils to increase soil fertility, aeration, and nutrient retention. Composting can serve as a key component of municipal solid waste recycling activities, considering that food and yard wastes accounted for nearly 28 percent of the total amount of municipal solid waste generated in 2009. Some communities are implementing large-scale composting programs in an effort to conserve landfill capacity.

For recycling to be successful, the recovered material must be reprocessed or remanufactured and the resulting products bought and used by consumers. Recycling programs will become more effective as markets increase for products made from recycled material. The federal government has developed several initiatives in order to bolster the use of recycled products. EPA's federal procurement guidelines, authorized by RCRA Subtitle F, are designed to bolster the market for products manufactured from recycled materials. The procurement program uses government purchasing to spur recycling and markets for recovered materials. (This program is fully discussed in Chapter V).

Combustion

Confined and controlled burning, known as **combustion**, can not only decrease the volume of solid waste destined for landfills, but can also recover energy from the waste-burning process. Modern waste-to-energy facilities use energy recovered from combustion of solid waste to produce steam and electricity. In 2009, combustion facilities handled 11.9 percent (29.0 million tons) of the municipal solid waste generated (see Figure II-3). Used in conjunction with source reduction and recycling, combustion can recover energy and materials and greatly reduce the volume of wastes entering landfills.

There are three types of technologies for the combustion of MSW: mass burn facilities, modular systems, and refuse derived fuel systems. Mass burn facilities are by far the most common types of combustion facilities in the United States. The waste used to fuel the mass burn facility may or may not be sorted before it enters the combustion chamber. Many advanced municipalities separate the waste on the front end to pull off as many recyclable products as possible. Modular systems are designed to burn unprocessed, mixed MSW. They differ from mass burn facilities in that they are much smaller and are portable and can be moved from site to site. Refuse derived fuel systems use mechanical methods to shred incoming MSW, separate out non-combustible materials, and produce a combustible mixture suitable as a fuel in a dedicated furnace or as a supplemental fuel in a conventional boiler system.

Additional information about energy recovery from waste can be found at www.epa.gov/waste/nonhaz/municipal/wte.

■ Landfilling

Landfilling of solid waste still remains the most widely used waste management method. Americans landfilled approximately 54.3 percent (131.9 million tons) of municipal solid waste in 2009 (see Figure II-3). Many communities are having difficulties siting new landfills, largely as a result of increased citizen concerns about the potential risks and aesthetics associated with having a landfill in their neighborhood. To reduce risks to health and the environment, EPA developed minimum criteria that solid waste landfills must meet.

■ Climate Change

Solid waste disposal contributes to greenhouse gas emissions in a variety of ways. First, the anaerobic decomposition of waste in landfills produces methane, a greenhouse gas 21 times more potent than carbon dioxide. Second, the incineration of waste produces carbon dioxide as a by-product. In addition, the transportation of waste to disposal sites produces greenhouse gas emissions from the combustion of the fuel used in the equipment. Finally, the disposal of materials indicates that they are being replaced by new products; this production often requires the use of fossil fuels to obtain raw materials and manufacture the items.

Waste prevention and recycling—jointly referred to as waste reduction—help us better manage the solid waste we generate. But preventing waste and recycling also are potent strategies for reducing greenhouse gas emissions. Together, waste prevention and recycling reduce methane emissions from landfills; reduce emissions from incinerators; reduce emissions from energy consumption; and increase storage of carbon in trees.

Looking at each of these benefits in more detail, waste prevention and recycling (including composting) divert organic wastes from landfills, thereby reducing the methane released when these materials decompose. Recycling and waste prevention allow some materials to be diverted from incinerators and thus reduce greenhouse gas emissions from the combustion of waste. Recycling saves energy because manufacturing goods from recycled materials typically requires less energy than producing goods from virgin materials. Waste prevention is even more effective at saving energy. When people reuse things or when products are made with less material, less energy is needed to extract, transport, and process raw materials and to manufacture products. When energy demand decreases, fewer fossil fuels are burned and less carbon dioxide is emitted to the atmosphere. Finally, trees absorb carbon dioxide from the atmosphere and store it in wood, in a process called "carbon sequestration." Waste prevention and recycling of paper products allow more trees to remain standing in the forest, where they can continue to remove carbon dioxide from the atmosphere.

Additional information about the relationship between solid waste and climate change can be found at www.epa.gov/climatechange/wycd/waste.

INDUSTRIAL WASTE

Industrial waste is also a subset of solid waste and is defined as solid waste generated by manufacturing or industrial processes that is not a hazardous waste regulated under Subtitle C of RCRA. Such waste may include, but is not limited to, waste resulting from the following manufacturing processes: electric power generation; fertilizer or agricultural chemicals; food and related products or by-products; inorganic chemicals; iron and steel manufacturing; leather and leather products; nonferrous metals manufacturing or foundries; organic chemicals; plastics and resins manufacturing; pulp and paper industry; rubber and miscellaneous plastic products; stone, glass, clay, and concrete products; textile manufacturing; transportation equipment; and water treatment. Industrial waste does not include mining waste or oil and gas production waste.

Each year in the United States, approximately 60,000 industrial facilities generate and dispose of approximately 7.6 billion tons of industrial solid waste. Most of these wastes are in the form of wastewaters (97%). EPA has, in partnership with state and tribal representatives and a focus group of industry and public interest stakeholders, developed a set of recommendations and tools to assist facility managers, state and tribal regulators, and the interested public in better addressing the management of land-disposed, nonhazardous industrial wastes.

Similarly to municipal solid waste, EPA recommends considering pollution prevention options when designing an industrial waste management system. Pollution prevention will reduce waste disposal needs and can minimize impacts across all environmental media. Pollution prevention can also reduce the volume and toxicity of waste. Lastly, pollution prevention can ease some of the burdens, risks, and liabilities of waste management. As with municipal solid waste, EPA recommends a hierarchical approach to industrial waste management: first, prevent or reduce waste at the point of generation (source reduction); second, recycle or reuse waste materials; third, treat waste; and finally, dispose of remaining waste in an environmentally protective manner. There are many benefits of pollution prevention activities, including protecting human health and the environment, cost savings, simpler design and operating conditions, improved worker safety, lower liability, higher product quality, and improved community relations.

When implementing pollution prevention, industrial facilities should consider a combination of options that best fits the facility and its products. There are a number of steps common to implementing any facility-wide pollution prevention effort. An essential starting point is to make a clear commitment to identifying and taking advantage of pollution prevention opportunities. Facilities should seek the participation of interested partners, develop a policy statement committing the industrial operation to pollution prevention, and organize a team to take responsibility for it. As a next step, facilities should conduct a thorough pollution prevention opportunity assessment. Such an assessment will help set priorities according to which options are the most promising. Another feature common to many pollution prevention programs is measuring the program's progress. The actual pollution prevention practices implemented are the core of a program. The following sections give a brief overview of these core activities: source reduction, recycling, and treatment.

■ Source Reduction

Source reduction is the design, manufacture, and use of products in a way that reduces the quantity and toxicity of waste produced when the products reach the end of their useful lives. Source reduction activities for industrial waste include equipment or technology modifications; process or procedure modifications; reformulations or redesign of products; substitution of less-noxious product materials; and improvements in housekeeping, maintenance, training, or inventory control.

One source reduction option is to reformulate or redesign industrial products and processes to incorporate materials more likely to produce lower-risk wastes. Some of the most common practices include eliminating metals from inks, dyes, and paints; reformulating paints, inks, and adhesives to eliminate synthetic organic solvents; and replacing chemical-based cleaning solvents with water-based or citrus-based products.

Newer process technologies often include better waste reduction features than older ones. For industrial processes that predate consideration of waste and risk reduction, adopting new procedures or upgrading equipment can reduce waste volume, toxicity, and management costs. Some examples include redesigning equipment to cut losses during batch changes or during cleaning and maintenance, changing to mechanical cleaning devices to avoid solvent use, and installing more energy and material-efficient equipment.

In-process recycling involves the reuse of materials, such as cutting scraps, as inputs to the same process from which they came, or uses them in other processes or for other uses in the facility. This furthers waste reduction goals by reducing the need for treatment or disposal and by conserving energy and resources. A common example of in-process recycling is the reuse of wastewater.

Some of the easiest, most cost-effective, and most widely used waste reduction techniques are simple improvements in housekeeping. Accidents and spills generate avoidable disposal hazards and expenses. They are less likely to occur in clean, neatly organized facilities. Good housekeeping techniques that reduce the likelihood of accidents and spills include training employees to manage waste and materials properly; keeping aisles wide and free of obstructions; clearly labeling containers with content, handling, storage, expiration, and health and safety information; spacing stored materials to allow easy access; surrounding storage areas

with containment berms to control leaks or spills; and segregating stored materials to avoid cross-contamination, mixing of incompatible materials, and unwanted reactions.

■ Recycling

Industry can benefit from recycling: the separation and collection of byproduct materials, their subsequent transformation or remanufacture into usable or marketable products or materials, and the purchase of products made from recyclable materials.

Many local governments and states have established materials exchange programs to facilitate transactions between generators of byproduct materials and industries that can recycle wastes as raw materials. Materials exchanges are an effective and inexpensive way to find new users and uses for a byproduct material.

Recycling can involve substituting industrial by-products for another material with similar properties which is a component of sustainable materials management. For example, using wastewaters and sludges as soil amendments and using foundry sand in asphalt, concrete, and roadbed construction conserves natural resources. The industrial byproducts replace other, virgin materials, such as fill or Portland cement, not only avoiding disposal costs but also yielding a quality product. State regulatory agencies may require advance approval of planned recycling activities and may require testing of the materials to be recycled. Others may pre-designate certain by-products for recycling, as long as the required analyses are completed. Generally, regulatory agencies want to ensure that industrial byproducts are beneficially used in a safe manner and do not pose a greater risk than the materials they are replacing. Industrial facilities should consult with the state agency for criteria and regulations governing the recycling of industrial byproducts prior to any use or application.

In the last couple of years, several recent events (EPA's proposed rule regarding the disposal of coal combustion residues, the Inspector General's review of the Coal Combustion Products Partnership, and an enhanced focus in the sustainable materials management arena) have shifted the Agency's focus to ensure that these materials are beneficially used in a safe manner. While the Agency still supports safe beneficial use practices, EPA is developing a process to ensure the safety of beneficial use practices.

■ Treatment

Treatment of nonhazardous industrial waste is not a federal requirement. However, it can help to reduce the volume and toxicity of waste prior to disposal. Treatment can also make a waste amenable for reuse or recycling. Consequently, a facility managing nonhazardous industrial waste might elect to apply treatment. For example, treatment might be employed to address volatile organic compound (VOC) emissions from a waste management uuit, or a facility might elect to treat a waste so that a less stringent waste management system design could be used. Treatment involves changing a waste's physical, chemical, or biological character or composition through designed techniques or processes. There are three primary categories of treatment – physical, chemical, and biological. Physical treatment involves changing the waste's physical properties such as its size, shape, density, or state (i.e., gas, liquid, solid). Physical treatment does not change a waste's chemical composition. One form of physical treatment, immobilization, involves encapsulating waste in other materials, such as plastic, resin, or cement, to prevent constituents from volatilizing or leaching. Listed below are a few examples of physical treatment:

- Immobilization, including encapsulation and thermoplastic binding
- Carbon absorption, including granular activated carbon and powdered activated carbon
- Distillation, including batch distillation, fractionation, thin film extraction, steam stripping, thermal drying, and filtration
- Evaporation/volatilization
- Grinding
- Shredding
- Compacting
- Solidification/addition of absorbent material.

Chemical treatment involves altering a waste's chemical composition, structure, and properties through chemical reactions. Chemical treatment can consist of mixing the waste with other materials (reagents), heating the waste to high temperatures, or a combination of both. Through chemical treatment, waste constituents can be recovered or destroyed. Listed below are a few examples of chemical treatment:

- Neutralization
- Oxidation
- Reduction
- Precipitation
- Acid leaching
- Ion exchange
- Incineration
- Thermal desorption
- Stabilization
- Vitrification
- Extraction, including solvent extraction and critical extraction
- High temperature metal recovery.

Biological treatment can be divided into two categories–aerobic and anaerobic. Aerobic biological treatment uses oxygen-requiring microorganisms to decompose organic and non-metallic constituents into carbon dioxide, water, nitrates, sulfates, simpler organic products, and cellular biomass (i.e., cellular growth and reproduction). Anaerobic biological treatment uses microorganisms, in the absence of oxygen, to transform organic constituents and nitrogen-containing compounds into oxygen and methane gas (CH_4). Anaerobic biological treatment typically is performed in an enclosed digestor unit.

The range of treatment methods from which to choose is as diverse as the range of wastes to be treated. More advanced treatment will generally be more expensive, but by reducing the quantity and risk level of the waste, costs might be reduced in the long run. Savings could come from not only lower disposal costs, but also lower closure and post-closure care costs. Treatment and post-treatment waste management methods can be selected to minimize both total cost and environmental impact, keeping in mind that treatment residuals, such as sludges, are wastes themselves that will need to be managed.

■ Landfilling

As with municipal solid waste, industrial facilities will not be able to manage all of their industrial waste by source reduction, recycling, and treatment. Landfilling is the least desirable option and should be implemented as part of a comprehensive waste management system. Implementing a waste management system that achieves protective environmental operations requires incorporating performance monitoring and measurement of progress towards environmental goals. An effective waste management system can help ensure proper operation of the many interrelated systems on which a unit depends for waste containment, leachate management, and other important functions. If the elements of an industrial waste landfill are not regularly inspected, maintained, improved, and evaluated for efficiency, even the best designed unit might not operate efficiently. Implementing an effective waste management system can also reduce long- and short-term costs, protect workers and local communities, and maintain good community relations.

Industrial waste landfills can face opposition as a result of concerns about possible negative aesthetic impact and potential health risks. To reduce risks to health and the environment, EPA developed minimum criteria that industrial waste landfills must meet. The federal criteria for nonhazardous industrial waste facilities or practices are provided in 40 CFR Part 257, Subparts A and B. The criteria for solid waste disposal facilities are discussed later in this chapter.

■ Guide for Industrial Waste Management

EPA, in close collaboration with state and tribal representatives through the Association of State and Territorial Solid Waste Management Officials (ASTSWMO), and a focus group of industry and public interest stakeholders, developed a set of recommendations and tools to assist facility managers, state and tribal regulators, and the interested public in better addressing the management of land-disposed, nonhazardous industrial wastes. The *Guide for Industrial Waste Management* (EPA530-R-03-001) provides considerations and Internet-based tools for siting industrial waste management units; methods for characterizing waste constituents; fact sheets and Web sites with information about individual waste

constituents; tools to assess possible risks posed by the wastes; principles for building stakeholder partnerships; opportunities for waste minimization; guidelines for safe unit design; procedures for monitoring surface water, air, and ground water; and recommendations for closure and post-closure care.

The guide is available at www.epa.gov/epawaste/nonhaz/industrial/guide.

CRITERIA FOR SOLID WASTE DISPOSAL FACILITIES

One of the initial focuses of the Solid Waste Disposal Act (as amended by RCRA) was to require EPA to study the risks associated with solid waste disposal and to develop management standards and criteria for solid waste disposal units (including landfills) in order to protect human health and the environment. This study resulted in the development of criteria for classifying solid waste disposal facilities and practices.

On September 13, 1979, EPA promulgated criteria to designate solid waste disposal facilities and practices which would not pose adverse effects to human health and the environment (Part 257, Subpart A). Facilities failing to satisfy the criteria are considered **open dumps** requiring attention by state solid waste programs. RCRA prohibits open dumping. As a result, open dumps had to either be closed or upgraded to meet the criteria for sanitary landfills. States were also required to incorporate provisions into their solid waste programs to prohibit the establishment of new open dumps. States have the option of developing standards more stringent than the Part 257, Subpart A criteria.

Solid waste disposal is overseen by the states, and compliance is assured through state-issued permits. EPA does not issue permits for solid waste management. Each state is to obtain EPA approval for their MSWLF permitting program. This approval process assesses whether a state's program is sufficient to ensure each landfill's compliance with the criteria. In states without an approved program, the federal criteria are self-implementing; the owner or operator of a solid waste disposal facility in those states must directly implement the requirements. In addition to the minimum federal criteria, some states may impose requirements that are more stringent than the federal requirements. Citizen suits (under RCRA §7002) may also be used to enforce the federal criteria in addition to state-issued permits.

■ Technical Criteria for Solid Waste Disposal Facilities

The Part 257, Subpart A regulatory criteria used to classify solid waste disposal facilities and practices consist of general environmental performance standards. The criteria contain provisions designed to ensure that wastes disposed of in solid waste disposal units will not threaten endangered species, surface water, ground water, or flood plains. Further, owners and operators of disposal units are required to implement public health and safety precautions such as disease vector (e.g., rodents, flies, mosquitoes) controls to prevent the spread of disease and restrictions on the open burning of solid waste. In addition, facilities are required to install safety measures to control explosive gases generated by the decomposition of waste, minimize the attraction of birds to the waste disposed in the unit, and restrict public access to the facility. The criteria also restrict the land spreading of wastes with high levels of cadmium and polychlorinated biphenyls (PCBs) in order to adequately protect ground water from these dangerous contaminants.

These criteria serve as minimum technical standards for solid waste disposal facilities. As a result, facilities must meet the Part 257 standards to ensure that ongoing waste management operations adequately protect human health and the environment. If they fail to do so, the facility is classified as an open dump and must upgrade its

WHAT IS AN OPEN DUMP?

An open dump is defined as a disposal facility that does not comply with one or more of the Part 257 or Part 258 criteria. Using the Part 257, Subpart A criteria as a benchmark, each state evaluated the solid waste disposal facilities within its borders to determine which facilities were open dumps that needed to be closed or upgraded. For each open dump, the state completed an Open Dump Inventory Report form that was sent to the Bureau of the Census. At the end of fiscal years 1981 through 1985, the Bureau compiled all of the report forms and sent them to EPA, where they were summarized and published annually.

operations or close.

Conditionally Exempt Small Quantity Generator Waste Disposal Facilities

In July of 1996, EPA promulgated standards for non-municipal, nonhazardous waste facilities that may receive **conditionally exempt small quantity generator (CESQG)** waste (40 CFR Part 257, Subpart B). These revisions address location restrictions, requirements for monitoring for ground- water contamination, and corrective action provisions to clean up any contamination. (CESQGs are fully discussed in Chapter III, Regulations Governing Hazardous Waste Generators).

Technical Criteria for Municipal Solid Waste Landfills (MSWLFs)

Protection of human health and the environment from the risks posed by solid waste disposal facilities was an ongoing concern of Congress after RCRA was passed in 1976. As a result, the 1984 Hazardous and Solid Waste Amendments (HSWA) required EPA to report on the adequacy of existing solid waste disposal facility criteria and gather detailed data on the characteristics and quantities of nonhazardous municipal solid wastes.

Report to Congress on Solid Waste Disposal

In October 1988, EPA submitted a Report to Congress indicating that the United States was generating an increasing amount of municipal solid waste. The Report revealed that approximately 160 million tons of municipal solid waste were generated each year, 131 million tons of which were landfilled in just over 6,500 MSWLFs. EPA also reported that although these landfills used a wide variety of environmental controls, they may pose significant threats to ground water and surface water resources. For instance, rain water percolating through the landfills can dissolve harmful constituents in the waste and can eventually seep into the ground, potentially contaminating ground water. In addition, improperly maintained landfills can pose other health risks due to airborne contaminants, or the threat of fire or explosion.

To address these environmental and health concerns, and to standardize the technical requirements for these landfills, EPA promulgated revised minimum federal criteria in Part 258 for MSWLFs on October 9, 1991. The criteria were designed to ensure that MSWLFs receiving municipal solid waste would be protective of human health and the environment. All other solid waste disposal facilities and practices, besides MSWLFs, remain subject to Part 257, Subpart A or B.

Criteria for Municipal Solid Waste Landfills

A **municipal solid waste landfill** is defined as a discrete area of land or excavation that receives household waste. A MSWLF may also receive other types of nonhazardous wastes, such as commercial solid waste, nonhazardous sludge, conditionally exempt small quantity generator (CESQG) waste, and industrial nonhazardous solid waste. In 2009, there were approximately 1,908 MSWLFs in the continental United States.

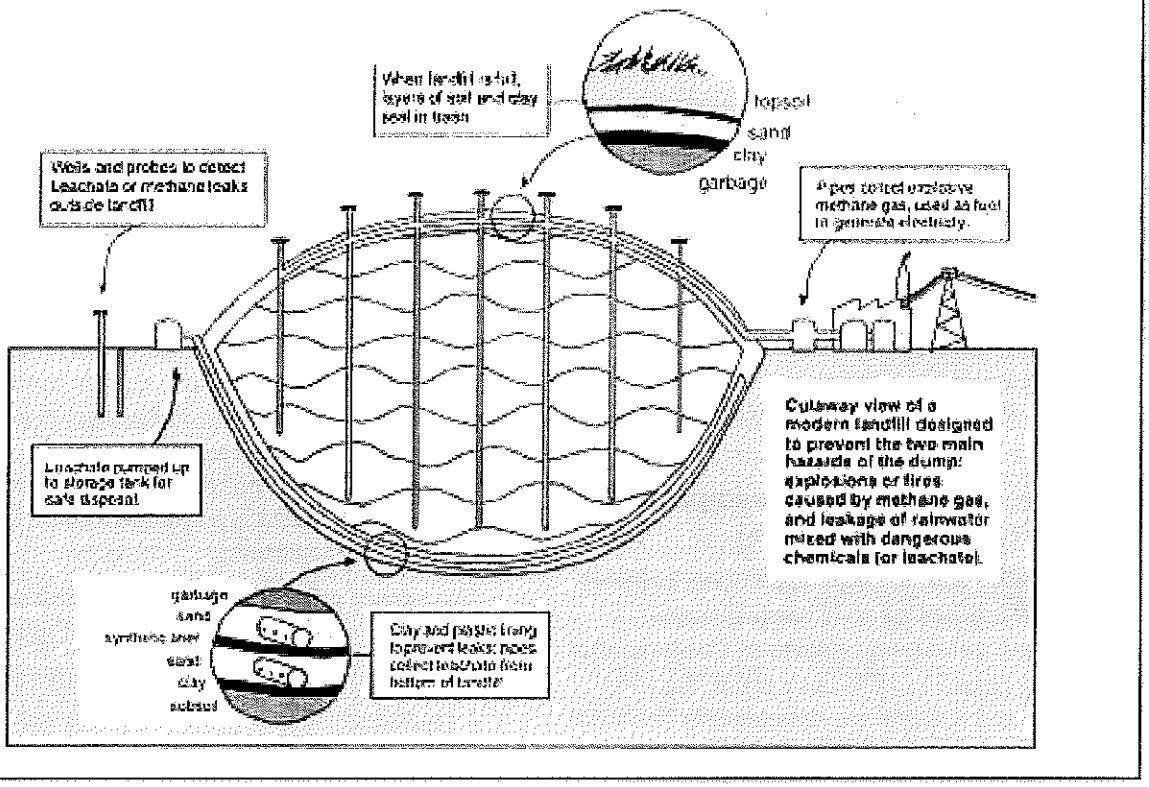
The revised criteria in 40 CFR Part 258 address seven major aspects of MSWLFs (see Figure II-4):

- Location
- Operation
- Design
- Ground-water monitoring
- Corrective action
- Closure and post-closure activities
- Financial assurance.

The location criteria restrict where a MSWLF may be located. New landfills must meet minimum standards for placement in or near flood plains, wetlands, fault areas, seismic impact zones, and other unstable areas. Because some bird species are attracted to landfills, the criteria also restrict the placement of landfills near airports to reduce the bird hazards (i.e., collisions between birds and aircraft that may cause damage to the aircraft or injury to the passengers).

The operating criteria establish daily operating standards for running and maintaining a landfill. The standards dictate sound management practices that ensure protection of human health and the environment. The provisions require covering the landfill daily, controlling disease vectors, and controlling explosive gases. They also prohibit the open burning of solid waste and require the owner and operator of the landfill to control unauthorized access to the unit.

Figure II-4: Cross-Section of a Municipal Solid Waste Landfill



Leachate is formed when rain water filters through wastes placed in a landfill. When this liquid comes in contact with buried wastes, it leaches, or draws out, chemicals or constituents from those wastes. The design criteria require each new landfill to have a liner consisting of a flexible membrane and a minimum of two feet of compacted soil, as well as a leachate collection system. The liner and collection system prevent the potentially harmful leachate from contaminating the soil and ground water below the landfill. States with EPA-approved MSWLF permit programs can allow the use of an alternative liner design that controls ground-water contamination.

In order to check the performance of system design, MSWLF facility managers must also establish a ground-water monitoring program. Through a series of monitoring wells, the facility owner and operator are alerted if the landfill is leaking and causing contamination. If contamination is detected, the owner and operator of the landfill must perform **corrective action** (i.e., clean up the contamination caused by the landfill).

When landfills reach their capacity and can no longer accept additional waste, the criteria stipulate procedures for properly closing the facility to ensure that the landfill does not endanger human health and the environment in the future. The **closure** activities at the end of a facility's use are often expensive, and the owner and operator must have the ability to pay for them. To this end, the criteria require each owner and operator to prove that they have the financial resources to perform these closure and **post-closure** activities, as well as any known corrective action.

■ Bioreactor Landfills

EPA is investigating the feasibility of improving how waste is managed in MSWLFs. Projects are being conducted to assess bioreactor landfill technology. A bioreactor landfill operates to more rapidly transform and degrade organic waste. The increase in waste degradation and stabilization is accomplished through the addition of liquid and air to enhance microbial processes. This bioreactor concept differs from the traditional "dry tomb"

municipal landfill approach. Thus, decomposition and biological stabilization of the waste in a bioreactor landfill can occur in a shorter time frame than occurs in a traditional landfill. This provides a potential decrease in long-term environmental risks and landfill operating and post-closure costs.

Additional information about bioreactor landfills can be found at www.epa.gov/epawaste/nonhaz/municipal/landfill/bioreactors.htm.

ASSISTANCE TO NATIVE AMERICAN TRIBES

EPA developed a municipal solid waste strategy to assist Native American tribes in the establishment of healthy, environmentally protective, integrated solid waste management practices on tribal lands. The initial strategy was based on input from tribal focus groups convened by the National Tribal Environmental Council and discussions with tribal organizations, EPA Regional Indian Program Coordinators, other EPA offices, and other federal agencies with trust responsibilities on Native American lands. The strategy emphasizes building tribal municipal solid waste management capacity, developing tribal organizational infrastructure, and building partnerships among tribes, states, and local governments. Direct EPA support of these goals includes technical assistance, grant funding, education, and outreach.

Solid waste managers on Native American lands face unique challenges. To address issues such as jurisdiction, funding, and staffing, EPA offers several resource guides featuring in-depth information specific to Native American lands. The Agency recognizes that every solid waste management program needs funding to survive and that, in an era of tightening budgets, it may be difficult to find necessary resources. One of EPA's ongoing priorities is to make current information available to help tribes locate the funding they need to develop and implement safe and effective solid waste programs.

One such initiative is the *Tribal Waste Journal*. The journal contains in-depth information on a variety of solid and hazardous waste topics including interviews with representatives from Native American Tribes and Alaskan Native Villages. Each issue focuses on a single topic and presents ideas, approaches, and activities that other Native American Tribes and Alaskan Native Villages have successfully employed.

Additionally, EPA has initiated the Tribal Open Dump Cleanup Project to assist tribes with closure or upgrade of open dump sites. The project is part of a Tribal Solid Waste Interagency Workgroup, which is working to coordinate federal assistance for tribal solid waste management programs. The cleanup project's specific goals include assisting tribes with 1) proposals to characterize/assess open dumps; 2) proposals to develop Integrated Solid Waste Management (ISWM) Plans and Tribal Codes and regulations; 3) proposals to develop and implement alternative solid waste management activities/facilities; and 4) proposals to develop and implement closure and post-closure programs.

Outreach and educational materials are two other tools EPA provides to tribes to support environmentally sound integrated solid waste management practices. The Agency's outreach support helps tribes connect and learn from each other's experiences. Educational resources help tribal leadership as well as the general tribal community understand the importance of good municipal solid waste management. Better understanding ensures that tribal municipal solid waste programs are assigned a high priority and facilitates the communities' adoption of new and improved waste disposal practices.

Additional information about waste management in Indian Country is available at www.epa.gov/epawaste/wycd/tribal.

HOMELAND SECURITY

The Office of Resource Conservation and Recovery's role in the homeland security arena is to provide technical support to Federal, state, local, and tribal authorities, industry, and other stakeholders on waste management decisions before, during, and after a homeland security incident occurs. Most homeland security incidents (e.g., acts of terrorism, large-scale natural disasters, major accidents, and animal disease outbreaks) involve waste management issues and decisions. For example, terrorist events can result in large amounts of contaminated materials and debris, large-scale

natural disasters can generate large quantities of mixed debris, and animal disease outbreaks may result in the need to treat and/or dispose of large volumes of contaminated carcasses. In order to properly manage waste generated from a homeland security incident, the waste needs to be characterized to determine if RCRA applies. For more information on managing homeland security waste, please visit EPA's Waste Management for Homeland Security Incidents at www.epa.gov/waste/homeland.

OTHER SOLID WASTE MANAGEMENT INITIATIVES

Along with the Resource Conservation Challenge (which is discussed in Chapter IV), EPA has developed a number of solid waste management initiatives to help facilitate and promote proper waste management, and encourage source reduction by both industry and the public. Several such initiatives are described below.

■ Recycling Market Development

There are three stages to recycling: collecting recyclable materials; manufacturing recycled-content products; and selling those products. Often symbolized by the chasing arrows logo, all three stages of the recycling process must work effectively in order to close the recycling loop. Creating markets for recycled materials—the third arrow—is critical to the success of the recycling process. Without a strong market for recycled materials, there is no incentive to collect recyclables and manufacture recycled-content products. Market development means fostering businesses that manufacture and market recycled-content products and strengthening consumer demand for those products. Market development can include, for example, expanding the processing and remanufacturing capacity of recycling businesses to handle the increasing volume of collected recyclables.

Across America, more individuals, organizations, businesses, and government agencies are collecting materials for recycling than ever before, which keeps valuable resources out of landfills. However, resource recovery is only part of the recycling story. Recycling also creates new businesses that haul, process, and broker recovered materials, as well as companies that manufacture and distribute products made with recycled content. These recycling businesses put people to work. The jobs created by recycling businesses draw from the full spectrum of the labor market (ranging from low- and semi-skilled jobs to highly skilled jobs). Materials sorters, dispatchers, truck drivers, brokers, sales representatives, process engineers, and chemists are just some of the jobs needed in the recycling industry. Recycling is actively contributing to America's economic vitality.

Additional information about recycling market development, including information for state and local officials, sources of technical and financial assistance for recycling businesses, and information on the economic benefits of recycling can be found at www.epa.gov/epawaste/conserve/rrr/rmd.

Note: Portions of this program were formerly under the Jobs Through Recycling (JTR) program, which is no longer active.

■ Materials and Waste Exchanges

Materials and waste exchanges are markets for buying and selling reusable and recyclable commodities. Some are physical warehouses that advertise available commodities through printed catalogs, while others are simply websites that connect buyers and sellers. Some are coordinated by state and local governments. Others are wholly private, for-profit businesses. The exchanges also vary in terms of area of service and the types of commodities exchanged. In general, waste exchanges tend to handle hazardous materials and industrial process waste while materials exchanges handle nonhazardous items.

Typically, the exchanges allow subscribers to post materials available or wanted on a Web page listing. Organizations interested in trading posted commodities then contact each other directly. As more and more individuals recognize the power of this unique tool, the number of Internet-accessible materials exchanges continues to grow, particularly in the area of national commodity-specific exchanges.

A list of international and national exchanges, as well as state-specific exchanges can be found at www.epa.gov/epawaste/conserve/tools/exchange.htm.

■ Pay-As-You-Throw (PAYT)

Some communities are using economic incentives to encourage the public to reduce solid waste sent to landfills. One of the most successful economic incentive programs used to achieve source reduction and recycling is variable rate refuse pricing, or unit pricing. Unit pricing programs, sometimes referred to as pay-as-you-throw (PAYT) systems, have one primary goal: customers who place more solid waste at the curb for disposal pay more for the collection and disposal service. Thus, customers who recycle more have less solid waste for disposal and pay less. There are a few different types of unit pricing systems. Most require customers to pay a per-can or per-bag fee for refuse collection and require the purchase of a special bag or tag to place on bags or cans. Other systems allow customers to choose between different size containers and charge more for collection of larger containers. EPA's role in the further development of unit pricing systems has been to study effective systems in use and to disseminate documentation to inform other communities about the environmental and economic benefits that unit pricing may have for their community. The number of PAYT communities grew to more than 7,133 in 2007, and the program serves a population of 75 million today. Based on greenhouse gas calculations, PAYT is attributed with reducing an equivalent of over 10 million metric tons of carbon dioxide annually.

Additional information about unit pricing or pay-as-you-throw programs is available at www.epa.gov/payt.

■ Tools for Local Government Recycling Programs

Residential recycling programs can be difficult to sustain. However, communities across the country have developed successful strategies for maintaining and expanding residential recycling programs, and some communities have even turned these programs into cost-saving operations. EPA has developed tools and other resources to help local governments and community leaders learn how to make recycling work in their area. These tools cover topics such as how to improve recycling's economic profile, how to evaluate recycling program costs, community recycling success stories, outreach materials, and resources for recycling in specific sectors. These tools can be found at www.epa.gov/epawaste/conserve/tools/localgov.

■ Full Cost Accounting for Municipal Solid Waste

Full cost accounting is an additional financial management tool that communities can use to improve solid waste management. Full cost accounting is an accounting approach that helps local governments identify all direct and indirect costs, as well as the past and future costs, of a MSW management program. Full cost accounting helps solid waste managers account for all monetary costs of resources used or committed, thereby providing the complete picture of solid waste management costs on an ongoing basis. Full cost accounting can help managers identify high-cost activities and operations and seek ways to make them more cost-effective.

Additional information about full cost accounting can be found at www.epa.gov/fullcost.

■ Construction and Demolition Materials

Under its Resource Conservation Challenge, EPA's Industrial Materials Recycling Program is supporting projects to reduce, reuse, and recycle materials generated from construction, renovation, deconstruction, and demolition of buildings and transportation structures, such as roads and bridges. Construction and demolition materials commonly include concrete, asphalt, wood, glass, brick, metal, insulation, and furniture. From incorporating used or environmentally friendly materials into a building's construction or renovation to disassembling structures for the reuse and recycling of their components, each phase of a building's life cycle offers opportunities to reduce waste.

Additional information about construction and demolition materials is available at www.epa.gov/epawaste/conserve/rrr/imr/cdm. The Resource Conservation Challenge is discussed further in Chapter IV and at www.epa.gov/rcc.

■ Industrial Ecology

The study of material and energy flows and their transformations into products, by-products, and waste throughout industrial and ecological systems is the primary concept of industrial ecology. This initiative urges industry to seek opportunities for the continual reuse and recycling of materials through a system in which processes are designed to consume only available waste streams and to produce only usable waste. Wastes from producers and consumers become inputs for other producers and consumers, and resources are cycled through the system to sustain future generations. Individual processes and products become part of an interconnected industrial system in which new products or processes evolve out of or consume available waste streams, water, and energy; in turn, processes are developed to produce usable resources.

EPA is continually studying these and other programs in order to assist communities in deciding whether one of these programs is right for them. In addition to these initiatives, EPA has published numerous guidance documents designed to educate both industry and the public on the benefits of source reduction, to guide communities in developing recycling programs, and to educate students on the benefits and elements of source reduction and recycling.

SUMMARY

The term "solid waste" includes garbage, refuse, sludges, nonhazardous industrial wastes, hazardous wastes, and other discarded materials. RCRA Subtitle C regulations distinguish those solid wastes which are deemed hazardous and subject to the hazardous waste regulatory program described in Chapter III. Subtitle D addresses primarily nonhazardous solid waste. Subtitle D also addresses hazardous wastes that are excluded from Subtitle C regulation (e.g., household hazardous waste). Management of nonhazardous solid waste is regulated by the states.

Municipal solid waste, a subset of solid waste, is waste generated by businesses and households. EPA recommends an integrated, hierarchical approach to managing solid waste that includes, in descending order of preference:

- Source reduction
- Recycling
- Disposal by combustion and/or landfilling.

As part of Subtitle D, EPA has developed detailed technical criteria for solid waste disposal facilities (40 CFR Part 257) and specific criteria for MSWLFs (40 CFR Part 258):

- Location
- Operation
- Design
- Ground water monitoring
- Corrective action
- Closure and post-closure
- Financial assurance (i.e., responsibility).

In addition, other solid waste management initiatives have been developed by EPA to help facilitate proper waste management. These initiatives focus on the environmental and economic benefits of source reduction and recycling. These initiatives include:

- Jobs through Recycling
- Pay-As-You-Throw
- Full cost accounting
- Construction and demolition materials
- Industrial ecology.

ADDITIONAL RESOURCES

Additional information about municipal solid waste management can be found at www.epa.gov/msw. Additional information on EPA's Resource Conservation Challenge is available at www.epa.gov/rcc.

CHAPTER III

MANAGING HAZARDOUS WASTE – RCRA SUBTITLE C

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OVERVIEW

The improper management of hazardous waste poses a serious threat to human health and the environment. When EPA began developing the hazardous waste management regulations in the late 1970s, the Agency estimated that only 10 percent of all hazardous waste was managed in an environmentally sound manner.

Some threats posed by the mismanagement of hazardous waste are obvious. Reports of chemical accidents or spills of hazardous waste that close highways, or illegal midnight dumping that contaminates property, are familiar. Yet, even when hazardous waste is managed or disposed of in a careful manner, it may still pose a threat to human health and the environment. For example, toxic hazardous wastes can leak from a hazardous waste landfill that is poorly constructed, improperly maintained, or structurally compromised. Such waste contamination can severely, and sometimes irreversibly, pollute ground water, the primary source of drinking water for half the nation.

Ground water pollution is not the only problem posed by hazardous waste mismanagement. The improper disposal of hazardous waste has polluted streams, rivers, lakes, and other surface waters, killing aquatic life, destroying wildlife, and stripping areas of vegetation. In other cases, careless waste disposal has been linked to respiratory illnesses, skin diseases (including skin cancer), and elevated levels of toxic materials in the blood and tissue of humans and domestic livestock. In still other cases, the mismanagement of hazardous waste has resulted in fires, explosions, or the generation of toxic gases that have killed or seriously injured workers and firefighters.

Since 1980, under RCRA Subtitle C, EPA has developed a comprehensive program to ensure that hazardous waste is managed safely: from the moment it is generated; while it is transported, treated, or stored; until the moment it is finally disposed (see Figure III-1). This cradle-to-grave management system establishes requirements for each of the following:

- **Hazardous Waste Identification**—To facilitate the proper identification and classification of hazardons waste, RCRA begins with hazardous waste identification procedures.

- **Hazardous Waste Recycling and Universal Wastes**—To provide for the safe recycling of hazardous wastes, and facilitate the management of commonly recycled materials, RCRA includes provisions for hazardous waste recycling and universal wastes.
- **Hazardous Waste Generators**—To ensure proper and safe waste management, the RCRA regulations provide management standards for those facilities that produce hazardous waste based on the amount of hazardous waste generated in a calendar month.
- **Hazardous Waste Transporters**—To govern the transport of hazardous waste between management facilities, RCRA regulates hazardous waste transporters.
- **Treatment, Storage, and Disposal Facilities (TSDF)**—To fully protect human health and the environment from hazardous waste treatment, storage, and disposal, the TSDF requirements establish generic facility management standards, specific provisions governing hazardous waste management units, and additional precautions designed to protect soil, ground water, and air resources.
- **Land Disposal Restrictions**—To reduce the hazards posed by permanently land disposed waste, this program requires effective and expeditious hazardous waste treatment.
- **Combustion**—To minimize the hazards posed by the burning of hazardous waste, RCRA imposes strict standards on units conducting such combustion.
- **Permitting**—To ensure that only facilities meeting the TSDF standards are treating, storing, and disposing of hazardous waste, and to provide each TSDF facility with a record of the specific requirements applicable to each part of its operation, RCRA requires owners and operators of these facilities to obtain a permit.
- **Corrective Action**—Since hazardous waste management may result in spills or releases into the environment, the corrective action program is designed to guide the cleanup of any contaminated air, ground water, or soil resulting from such management.
- **Enforcement**—To ensure that RCRA- regulated facilities, from generators to TSDFs, comply with these regulations, RCRA provides EPA with the authority to enforce provisions of the Act.
- **State Authorization**—To empower states and make enforcement more efficient, RCRA also allows EPA to authorize state governments to administer various parts of the RCRA program.

Each of these aspects of the RCRA Subtitle C program is carefully detailed in this chapter.

Figure III-1: RCRA's Cradle-to-Grave Hazardous Waste Management System



Hazardous Waste Generation | Hazardous Waste Transportation | Hazardous Waste Disposal

HAZARDOUS WASTE IDENTIFICATION

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OVERVIEW

What is a hazardous waste? Simply defined, a **hazardous waste** is a waste with properties that make it dangerous or capable of having a harmful effect on human health or the environment. Unfortunately, in order to develop a regulatory framework capable of ensuring adequate protection, this simple narrative definition is not enough. Determining what is a hazardous waste is paramount, because only those wastes that have specific attributes are subject to Subtitle C regulation.

Making this determination is a complex task that is a central component of the hazardous waste management regulations. Hazardous waste is generated from many sources, ranging from industrial manufacturing process wastes, to batteries, to fluorescent light bulbs. Hazardous waste may come in many forms, including liquids, solids, gases, and sludges. To cover this wide range, EPA has developed a system to identify specific substances known to be hazardous and provide objective criteria for including other materials in this universe. The regulations contain guidelines for determining what exactly is a waste (called a solid waste) and what is excluded from the hazardous waste regulations, even though it otherwise is a solid and hazardous waste. Finally, to promote recycling and the reduction of the amount of waste entering the RCRA system, EPA provides exemptions for certain wastes when they are recycled in certain ways.

This chapter introduces the hazardous waste identification process, describes how to determine if a waste is a solid waste, and provides the

regulatory definition for hazardous waste. It also discusses those wastes specifically excluded from Subtitle C regulation and those wastes exempted when recycled.

HAZARDOUS WASTE IDENTIFICATION PROCESS

Proper hazardous waste identification is essential to the success of the RCRA program. This identification process can be a very complex task. Therefore, it is best to approach the issue by asking a series of questions in a step-wise manner (see Figure III-2). If facility owners and operators answer the following questions, they can determine if they are producing a hazardous waste:

1. Is the material in question a solid waste?
2. Is the material excluded from the definition of solid waste or hazardous waste?
3. Is the waste a listed or characteristic hazardous waste?
4. Is the waste delisted?

This chapter will examine these key questions.

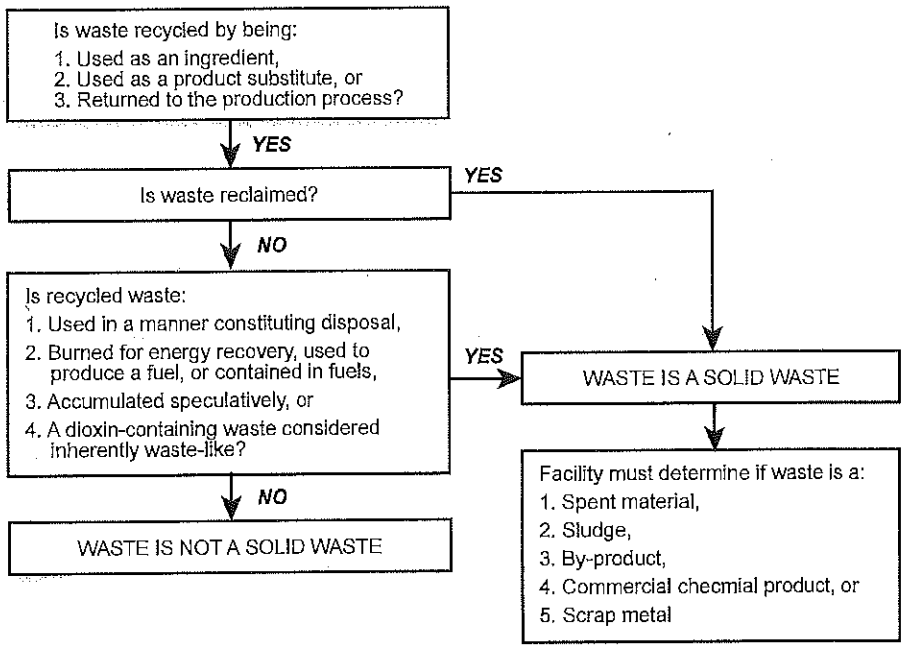
IS THE MATERIAL A SOLID WASTE?

The Subtitle C program uses the term solid waste to denote something that is a waste. In order for a material to be classified as a hazardous waste, it must first be a solid waste. Therefore, the first step in the hazardous waste identification process is determining if a material is a solid waste.

The statutory definition points out that whether a material is a solid waste is not based on the physical form of the material (i.e., whether or not it is a solid as opposed to a liquid or gas), but rather that the material is a waste. The regulations further define **solid waste** as any material that is discarded by being either abandoned, inherently waste-like, a certain military munition, or recycled (see Figure III-3).

- Abandoned—The term **abandoned** simply means thrown away. A material is abandoned if it is disposed of, burned, or incinerated.
- Inherently Waste-Like—Some materials pose such a threat to human health and the environment that they are always considered

Figure III-2: Are All Recycled Wastes Hazardous Wastes?



solid wastes; these materials are considered to be **inherently waste-like**. Examples of inherently waste-like materials include certain dioxin-containing wastes.

- Military Munition—**Military munitions** are all ammunition products and components produced for or used by the U.S. Department of Defense (DOD) or U.S. Armed Services for national defense and security. Unused or defective munitions are solid wastes when abandoned (i.e., disposed of, burned, incinerated) or treated prior to disposal; rendered nonrecyclable or nonuseable through deterioration; or declared a waste by an authorized military official. Used (i.e., fired or detonated) munitions may also be solid wastes if collected for storage, recycling, treatment, or disposal.
- Recycled—A material is **recycled** if it is used or reused (e.g., as an ingredient in a process), reclaimed, or used in certain ways (used in a manner constituting disposal, burned for energy recovery, or accumulated speculatively). (Recycled materials are fully discussed in Chapter III, Hazardous Waste Recycling and Universal Wastes.)

A user-friendly reference document containing a collection of written materials about specific issues related to the definition of solid waste can be found at www.epa.gov/epawaste/hazard/dsw/compendium.htm.

■ Recycled Materials

Materials that are recycled are a special subset of the solid waste universe. When recycled, some materials are not solid wastes and, therefore, not hazardous wastes, while others are solid and hazardous waste, but are subject to less-stringent regulatory controls. The level of regulation that applies to recycled materials depends on the material and the type of recycling (see Figure III-4). Because some types of recycling pose threats to human health and the environment, RCRA does not exempt all recycled materials from the definition of solid waste. As a result, the manner in which a material is recycled will determine whether or not the material is a solid waste and, therefore, potentially regulated as

Figure III-4: TCLP Regulatory Levels

Waste Code	Contaminant	Concentration (mg/L)
D004	Arsenic	5.0
D005	Barium	100.0
D018	Benzene	0.5
D006	Cadmium	1.0
D019	Carbon tetrachloride	0.5
D020	Chlordane	0.03
D021	Chlorobenzene	100.0
D022	Chloroform	6.0
D007	Chromium	5.0
D023	o-Cresol*	200.0
D024	m-Cresol*	200.0
D025	p-Cresol*	200.0
D026	Total Cresol*	200.0
D016	2,4-D	10.0
D027	1,4-Dichlorobenzene	7.5
D028	1,2-Dichloroethane	0.5
D029	1,1-Dichloroethylene	0.7
D030	2,4-Dichlorotoluene	0.13
D012	Endrin	0.02
D031	Heptachlor (and its epoxide)	0.008
D032	Hexachlorobenzene	0.13
D033	Hexachlorobutadiene	0.5
D034	Hexachloromethane	3.0
D008	Lead	5.0
D013	Lindane	0.4
D009	Mercury	0.2
D014	Methoxychlor	10.0
D035	Methylethylketone	200.0
D036	Nitrobenzene	2.0
D037	Pentachlorophenol	100.0
D038	Pyridine	5.0
D010	Selenium	1.0
D011	Silver	5.0
D039	Tetrachloroethylene	0.7
D015	Toxaphene	0.5
D040	Trichloroethylene	0.5
D041	2,4,5-Trichlorophenol	400.0
D042	2,4,6-Trichlorophenol	2.0
D017	2,4,5-TP (Silver)	1.0
D043	Vinyl chloride	0.2

* If 0-, m-, and p-cresols cannot be individually measured, the regulatory level for total cresols is used.

Figure III-3: Is It a Solid Waste?



a hazardous waste. In order to encourage waste recycling, RCRA exempts three types of wastes from the definition of solid waste:

- Waste Used as an Ingredient—If a material is directly used as an ingredient in a production process without first being reclaimed, then that material is not a solid waste.
- Waste Used as a Product Substitute—If a material is directly used as an effective substitute for a commercial product (without first being reclaimed), it is exempt from the definition of solid waste.
- Wastes Returned to the Production Process—When a material is returned directly to the production process (without first being reclaimed) for use as a feedstock or raw material, it is not a solid waste.

Conversely, materials are solid wastes, and are not exempt, if they are recycled in certain ways. If these materials are used in a manner constituting disposal; burned for energy recovery, used to produce a fuel, or contained in fuels; accumulated speculatively; or are dioxin-containing wastes considered inherently waste-like; then they are defined as solid wastes.

- Used in a Manner Constituting Disposal—**Use constituting disposal** is the direct placement of wastes or products containing wastes (e.g., asphalt with petroleum-refining wastes as an ingredient) on the land.
- Burned for Energy Recovery, Used to Produce a Fuel, or Contained in Fuels—Burning hazardous waste for fuel (e.g., **burning for energy recovery**) and using wastes to produce fuels are regulated activities. Conversely, commercial products intended to be burned as fuels are not considered solid wastes. For example, off-specification jet fuel (e.g., a fuel with minor chemical impurities) is not a solid waste when it is burned for energy recovery because it is itself a fuel.
- Accumulated Speculatively—In order to encourage recycling of wastes as well as ensure that materials are actually recycled, and not simply stored to avoid regulation, EPA established a provision to encourage facilities to recycle sufficient amounts in a timely manner. This provision designates as solid wastes those materials that are **accumulated speculatively**. A material is accumulated speculatively (e.g., stored in lieu of expeditious recycling) if it has no viable market or if the person accumulating the material cannot demonstrate that at least 75 percent of the material is recycled in a calendar year, commencing on January 1 (see Figure III-5).
- Dioxin-Containing Wastes Considered Inherently Waste-Like—Dioxin-containing wastes are considered inherently waste-like because they pose significant threats to human health and the environment if released or mismanaged. As a result, RCRA does not exempt such wastes from the definition of solid waste even if they are recycled through direct use or reuse without prior reclamation. This is to ensure that such wastes are subject to the most protective regulatory controls.

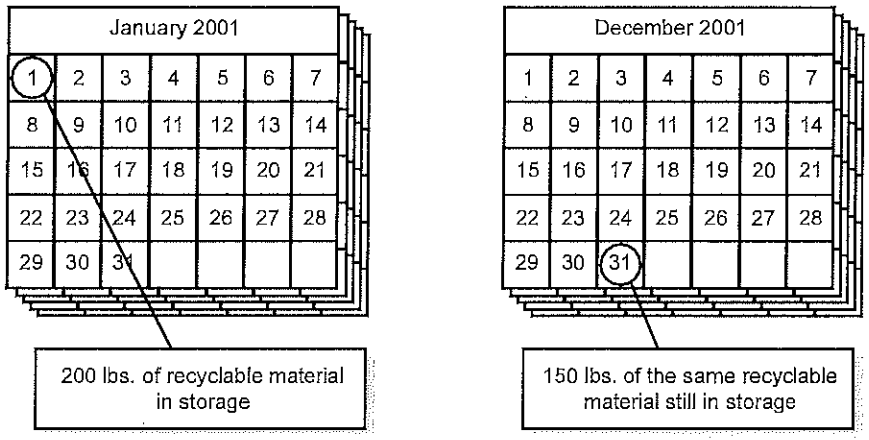
Secondary Materials

Not all materials can be directly used or reused without reclamation. A material is **reclaimed** if it is processed to recover a usable product (e.g., smelting a waste to recover valuable metal constituents), or if it is regenerated through processing to remove contaminants in a way that restores them to their usable condition (e.g., distilling dirty spent solvents to produce clean solvents). If **secondary materials** are reclaimed before use, their regulatory status depends on the type of material. For this solid waste determination process, EPA groups all materials into five categories. These secondary materials consist of spent materials, sludges, by-products, commercial chemical products (CCPs), and scrap metal.

Spent Materials

Spent materials are materials that have been used and can no longer serve the purpose for which they were produced without processing. For example, a solvent used to degrease metal parts will eventually become contaminated such that it cannot be used as a solvent until it is regenerated. If a spent material must be reclaimed, it is a solid waste and is subject to hazardous waste regulation. Spent materials are also regulated as solid wastes when used in a manner constituting disposal; burned for energy recovery,

Figure III-5: Materials Accumulated Speculatively



On January 1, 2001, a facility has 200 lbs. of a material that it wants to re-insert directly into its production process. Such a material is technically exempt from the definition of solid waste because it is being recycled through direct reuse without prior reclamation. However, by the end of the calendar year (December 31, 2001), less than 75 percent (i.e., less than 150 lbs.) of the material has been reclaimed or sent off site for reclamation. Therefore, the material has been speculatively accumulated and is no longer exempt from the definition of solid waste. The material may then be regulated as a hazardous waste.

used to produce a fuel, or contained in fuels; or accumulated speculatively (see Figure III-6).

Sludges

Sludges are any solid, semisolid, or liquid wastes generated from a wastewater treatment plant, water supply treatment plant, or air pollution control device (e.g., filters or baghouse dust). Sludges from specific industrial processes or sources (known as listed sludges) are solid wastes when reclaimed; used in a manner constituting disposal; burned for energy recovery, used to produce a fuel, or contained in fuels; or accumulated speculatively. On the other hand, characteristic sludges (which are sludges that exhibit certain physical or chemical properties) are not solid wastes when reclaimed, unless they are used in a manner constituting disposal; burned for energy recovery, used to produce a fuel, or

Figure III-6: Regulatory Status of Secondary Materials

	Reclaimed	Used in a Manner Constituting Disposal	Burned for Energy Recovery, Used to Produce a Fuel, or Contained in Fuels	Accumulated Speculatively
Spent Materials	✓	✓	✓	✓
Listed Sludges	✓	✓	✓	✓
Characteristic Sludges		✓	✓	✓
Listed By-Products	✓	✓	✓	✓
Characteristic By-Products		✓	✓	✓
Commercial Chemical Products		✓*	✓*	
Scrap-Metal	✓	✓	✓	✓

contained in fuels; or accumulated speculatively (see Figure III-6). (Listings and characteristics are fully discussed later in this chapter.)

By-Products

By-products are materials that are not one of the intended products of a production process. An example is the sediment remaining at the bottom of a distillation column. By-product is a catch-all term and includes most wastes that are not spent materials or sludges. Listed by-products are solid wastes when reclaimed; used in a manner constituting disposal; burned for energy recovery, used to produce a fuel, or contained in fuels; or accumulated speculatively. On the other hand, characteristic by- products are not solid wastes when reclaimed, unless they are used in a manner constituting disposal; burned for energy recovery, used to produce a fuel, or contained in fuels; or accumulated speculatively (see Figure III-6).

Commercial Chemical Products

Commercial chemical products (CCPS) are unused or off-specification chemicals (e.g., chemicals that have exceeded their shelf life), spill or container residues, and other unused manufactured products that are not typically considered chemicals. CCPs are not solid wastes when reclaimed, unless they are used in a manner constituting disposal; or burned for energy recovery, used to produce a fuel, or contained in fuels (see Figure III-6).

Scrap Metal

Scrap metal is worn or extra bits and pieces of metal parts, such as scrap piping and wire, or worn metal items, such as scrap automobile parts and radiators. If scrap metal is reclaimed, it is a solid waste and is subject to hazardous waste regulation (see also Chapter III, Hazardous Waste Recycling and Universal Wastes). Scrap metal is also regulated as a solid waste when used in a manner constituting disposal; burned for energy recovery, used to produce a fuel, or contained in fuels; or accumulated speculatively. This does not apply to processed scrap metal, which is excluded from hazardous waste generation entirely (as discussed later in this chapter).

Sham Recycling

For all recycling activities, the above rules are based on the premise that legitimate reclamation or reuse is taking place. EPA rewards facilities recycling some wastes by exempting them from regulation, or by subjecting them to lesser regulation. Some facilities, however, may claim that they are recycling a material in order to avoid being subject to RCRA regulation, when in fact the activity is not legitimate recycling. EPA has established guidelines for what constitutes legitimate recycling and has described activities it considers to be illegitimate or **sham recycling**. Considerations in making this determination include whether the secondary material is effective for the claimed use, if the secondary material is used in excess of the amount necessary, and whether or not the facility has maintained records of the recycling transactions.

SHAM RECYCLING

Sham recycling may include situations when a secondary material is:

- Ineffective or only marginally effective for the claimed use (e.g., using certain heavy metal sludges in concrete when such sludges do not contribute any significant element to the concrete's properties)
- Used in excess of the amount necessary (e.g., using materials containing chlorine as an ingredient in a process requiring chlorine, but in excess of the required chlorine levels)
- Handled in a manner inconsistent with its use as a raw material or commercial product substitute (e.g., storing materials in a leaking surface impoundment as compared to a tank in good condition that is intended for storing raw materials).

IS THE WASTE EXCLUDED?

Not all RCRA solid wastes qualify as hazardous wastes. Other factors must be considered before deciding whether a solid waste should be regulated as a hazardous waste. Regulation of certain wastes may be impractical or otherwise undesirable, regardless of the hazards that the waste might pose.

For instance, household waste can contain dangerous chemicals, such as solvents and pesticides, but subjecting households to the strict

RCRA waste management regulations would create a number of practical problems. As a result, Congress and EPA exempted or excluded certain wastes, such as household wastes, from the hazardous waste definition and regulations. Determining whether or not a waste is excluded or exempted from hazardous waste regulation is the second step in the RCRA hazardous waste identification process. There are five categories of exclusions:

- Exclusions from the definition of solid waste
- Exclusions from the definition of hazardous waste
- Exclusions for waste generated in raw material, product storage, or manufacturing units
- Exclusions for laboratory samples and waste treatability studies
- Exclusions for dredged material regulated under the Marine Protection Research and Sanctuaries Act or the Clean Water Act.

If the waste fits one of these categories, it is not regulated as a RCRA hazardous waste, and the hazardous waste requirements do not apply.

A user-friendly reference document containing a collection of written materials about specific issues related to exclusions from the definition of hazardous waste can be found at www.epa.gov/epawaste/hazard/wastetypes/wasteid/pdfs/rcra2614b-ref.pdf.

■ Solid Waste Exclusions

A material cannot be a hazardous waste if it does not meet the definition of a solid waste. Thus, wastes that are excluded from the definition of solid waste are not subject to RCRA Subtitle C hazardous waste regulation. The exclusions from the definition of solid waste are as follows.

Domestic Sewage and Mixtures of Domestic Sewage

Domestic sewage, or sanitary waste, comes from households, office buildings, factories, and any other place where people live and work. These wastes are carried by sewer to a municipal wastewater treatment plant (called a **publicly owned treatment works** (POTW)). The treatment of these wastes is regulated under the Clean Water Act (CWA). Mixtures of sanitary wastes and other wastes (including hazardous industrial wastes) that pass through a sewer system to a POTW are also excluded from Subtitle C regulation once they enter the sewer. In certain circumstances, this exclusion may be applied to domestic sewage and mixtures of domestic sewage that pass through a federally owned treatment works (FOTW).



Industrial Wastewater Discharges (Point Source Discharges)

Another exclusion from RCRA designed to avoid overlap with CWA regulations applies to **point source discharges**. Point source discharges are discharges of pollutants (e.g., from a pipe, sewer, or pond) directly into a lake, river, stream, or other water body. CWA regulates such discharges under the National Pollutant Discharge Elimination System (NPDES) permitting program. Under this exclusion from the definition of solid waste, wastewaters that are subject to CWA regulations are exempt from Subtitle C regulation at the point of discharge. Any hazardous waste generation, treatment, or storage prior to the discharge is subject to RCRA regulation.



Many industrial facilities that treat wastewater on site utilize this point source discharge exclusion.

Irrigation Return Flows

When farmers irrigate agricultural land, water not absorbed into the ground can flow into reservoirs for reuse. This return flow often picks up pesticide or fertilizer constituents, potentially rendering it hazardous. Because this water may be reused on the fields, it is excluded from the definition of solid waste.

Radioactive Waste

Radioactive waste is regulated by either the Nuclear Regulatory Commission or the U.S. Department of Energy (DOE) under the Atomic Energy Act (AEA). To avoid duplicative regulation under RCRA and AEA, RCRA excludes certain radioactive materials from the definition of solid waste. However, RCRA excludes only the radioactive components of the waste. If a radioactive waste is mixed with a hazardous waste, the resultant mixture is regulated by both AEA and RCRA as a **mixed waste**. Similarly, if a facility generates a hazardous waste that is also radioactive, the material is a mixed waste and is subject to regulation under both RCRA and AEA (the regulatory status of mixed waste is fully discussed later in this chapter).

In-Situ Mining Waste

In-situ (in-place) mining of certain minerals may involve the application of solvent solutions directly to a mineral deposit in the ground. The solvent passes through the ground, collecting the mineral as it moves. The mineral and solvent mixtures are then collected in underground wells where the solution is removed. Such solvent-contaminated earth, or any nonrecovered solvent, is excluded from the definition of solid waste when left in place.

Pulping Liquors

Pulping liquor, also called black liquor, is a corrosive material used to dissolve wood chips for manufacturing of paper and other materials. To promote waste minimization and recycling, EPA excluded pulping liquors from the definition of solid waste if they are reclaimed in a recovery furnace and then reused in the pulping process. If the liquors are recycled in another way, or are accumulated speculatively, they are not excluded.

Spent Sulfuric Acid

Spent sulfuric acid may be recycled to produce virgin sulfuric acid. To promote waste reduction and recycling, such recycled spent sulfuric acid is excluded from the definition of solid waste, unless the facility accumulates the material speculatively.

Closed-Loop Recycling

To further promote waste reduction and recycling, spent materials that are reclaimed and returned to the original process in an enclosed system of pipes and tanks are excluded from the definition of solid waste, provided that:

- Only tank storage is involved, and the entire process, through reclamation, is closed to the air (i.e., enclosed)
- Reclamation does not involve controlled flame combustion, such as that which occurs in boilers, industrial furnaces, or incinerators
- Waste materials are never accumulated in tanks for more than 12 months without being reclaimed
- Reclaimed materials are not used to produce a fuel, or used to produce products that are used in a manner constituting disposal.

An example of such a closed-loop system might include a closed solvent recovery system in which the dirty solvents are piped from the degreasiug unit to a solvent still where the solvent is cleaned, and then piped back to the degreasing unit.

Spent Wood Preservatives

Many wood preserving plants recycle their wastewaters and spent wood preserving solutions. These materials are collected on drip pads and sumps, and are in many cases returned directly to the beginning of the wood preserving process where they are reused in the same manner. While the process resembles a closed-loop recycling process, the closed-loop recycling exclusion does not apply because drip pads are open to the air. Consistent with their objective to encourage recycling hazardous waste, EPA developed a specific exclusion for

spent wood preserving solutions and wastewaters containing spent preservatives, provided that the materials have been reclaimed and are reused for their original purpose. In addition, wood preserving solutions and wastewaters are excluded from the definition of solid waste prior to reclamation. To use this exclusion, a facility is required to reuse the materials for their intended purpose and manage them in a way that prevents releases to the environment.

Coke By-Product Wastes

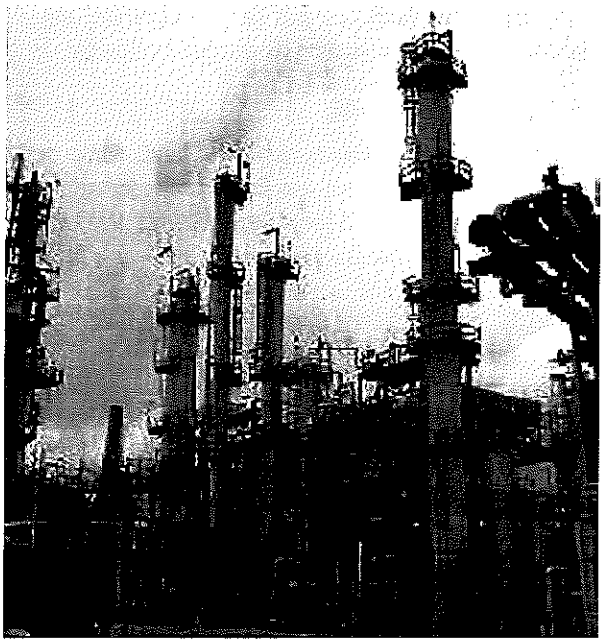
Coke, used in the production of iron, is made by heating coal in high temperature ovens. Throughout the production process many by-products are created. The refinement of these coke by-products generates several listed and characteristic wastestreams. However, to promote recycling of these wastes, EPA provided an exclusion from the definition of solid waste for certain coke by-product wastes that are recycled into new products.

Splash Condenser Dross Residue

The treatment of steel production pollution control sludge generates a zinc-laden residue, called a dross. This material, generated from a splash condenser in a high temperature metal recovery process, is known as a splash condenser dross residue. Because this material contains 50 to 60 percent zinc, it is often reclaimed, reused, or processed as a valuable recyclable material. Since facilities commonly handle this material as a valuable commodity by managing it in a way that is protective of human health and the environment, EPA excluded this residue from the definition of solid waste.

Hazardous Oil-Bearing Secondary Materials and Recovered Oil from Petroleum Refining Operations

Petroleum refining facilities sometimes recover oil from oily wastewaters and reuse this oil in the refining process. In order to encourage waste minimization and recycling, EPA excluded such recovered oil from the definition of solid waste when it is returned to the refinery. Oil-bearing hazardous wastes which are recycled back into the petroleum refining process are also excluded.



Condensates from Kraft Mill Steam Strippers

The kraft process, the most commonly used pulping process today, utilizes various chemicals to break down wood into pulp. This process generates overhead gases that are condensed and often recycled as fuel. To encourage the recycling of these condensates, EPA excluded them from the definition of solid waste provided the condensate is combusted at the mill that generated it.

Comparable Fuels

In order to promote the recycling of materials with high fuel values, certain materials that are burned as fuels are excluded from the definition of solid waste, provided that they meet certain specifications (i.e., are of a certain degree of purity). This is to ensure that the material does not exceed certain levels of toxic constituents and physical properties that might impede burning or are harmful to human health and the environment. Materials that meet this specification are considered comparable to pure or virgin fuels.

Processed Scrap Metal

Scrap metal includes, but is not limited to, pipes, containers, equipment, wire, and other metal items that are no longer of use. To facilitate recycling, scrap metal that has been processed to make it

easier to handle or transport and is sent for metals recovery is excluded from the definition of solid waste. Unprocessed scrap metal is still eligible for an exemption from hazardous waste regulation when recycled (as discussed in Chapter III, Hazardous Waste Recycling and Universal Wastes).

Shredded Circuit Boards

Circuit boards are metal boards that hold computer chips, thermostats, batteries, and other electronic components. Circuit boards can be found in computers, televisions, radios, and other electronic equipment. When this equipment is thrown away, these boards can be removed and recycled. Whole circuit boards meet the definition of scrap metal and are, therefore, exempt from hazardous waste regulation when recycled (as discussed in Chapter III, Hazardous Waste Recycling and Universal Wastes).

On the other hand, some recycling processes involve shredding the board. Such shredded boards do not meet the exclusion for recycled scrap metal. In order to facilitate the recycling of such materials, EPA excluded recycled shredded circuit boards from the definition of solid waste, provided that they are stored in containers sufficient to prevent release to the environment and are free of potentially dangerous components, such as mercury switches, mercury relays, nickel-cadmium batteries, and lithium batteries.

Mineral Processing Spent Materials

Mineral processing generates spent materials that may exhibit hazardous waste characteristics. Common industry practice is to recycle these mineral processing wastes back into the processing operations to recover mineral values. EPA created a conditional exclusion from the definition of solid waste for these spent materials when recycled in the mineral processing industry, provided the materials are stored in certain types of units and are not accumulated speculatively.

Petrochemical Recovered Oil

Organic chemical manufacturing facilities sometimes recover oil from their organic chemical industry operations. EPA excluded petrochemical recovered oil from the definition of solid waste when the facility inserts the material into the petroleum refining process of an associated or adjacent petroleum refinery. Only petrochemical recovered oil that is hazardous because it exhibits the characteristic of ignitability or exhibits the toxicity characteristic for benzene (or both) is eligible for the exclusion.

Spent Caustic Solutions from Petroleum Refining

Petroleum refineries use caustics to remove acidic compounds like mercaptans from liquid petroleum streams to reduce product odor and corrosivity as well as to meet product sulfur specifications. Spent liquid treating caustics from petroleum refineries are excluded from the definition of solid waste if they are used as a feedstock in the manufacture of napthenic and cresylic acid products. EPA believes that spent caustic, when used in this manner, is a valuable commercial feedstock in the production of these particular products and is, therefore, not a solid waste.

Zinc Fertilizers Made from Recycled Hazardous Secondary Materials

EPA promulgated a conditional exclusion from the definition of solid waste for hazardous secondary materials that are recycled to make zinc fertilizers or zinc fertilizer ingredients. Zinc, an important micronutrient for plants and animals, can be removed from zinc-rich manufacturing residue and used to produce zinc micronutrient fertilizer. A second conditional exclusion applies to the zinc fertilizer products made from these secondary materials.

Cathode Ray Tubes Being Recycled

EPA provides a conditional exclusion from the definition of solid waste for cathode ray tubes (CRTs) and CRT glass destined for recycling. EPA promulgated reduced standards to increase the collection and recycling of CRTs, and to reduce the amount of lead in landfills by allowing lead to be reused to make new CRT glass or sent to a lead smelter. Under this exclusion, used, unbroken CRTs are not regulated as solid waste unless they are stored for more than one year. EPA set simplified standards for unbroken CRTs because the risk of lead releases from them is very low. Used, broken CRTs are also not regulated as solid waste as long as the

conditions of the exclusion are met, which includes management and labeling standards. Glass removed from CRTs remains unregulated when destined for recycling at a CRT glass manufacturer or a lead smelter when the conditions of the exclusion are met. In addition, individuals that export used CRTs for recycling are subject to notification requirements and must receive written consent from the receiving country through EPA before shipments can be made. These exporters must also file annual reports with EPA as well. Exporters sending used CRTs for reuse abroad must also comply with certain notification requirements, but do not have to receive consent from the foreign country.

Reusable Solvent-Contaminated Wipes

EPA excludes solvent-contaminated wipes that are sent for cleaning (e.g., sent to a laundry or dry cleaner) and reuse provided certain conditions are met. Solvent-contaminated wipes must be managed in non-leaking, closed containers and be labeled. Additionally, solvent-contaminated wipes cannot be accumulated for more than 180 days and must contain no free liquids when sent for cleaning. Generators must also maintain certain records and the laundry or dry cleaner must be regulated under the Clean Water Act.

■ Hazardous Waste Exclusions

EPA also excludes certain solid wastes from the definition of hazardous waste. If a material meets an exclusion from the definition of hazardous waste, it cannot be a hazardous waste, even if the material technically meets a listing or exhibits a characteristic. There are currently 15 exclusions from the definition of hazardous waste.

Household Hazardous Waste

Households often generate solid wastes that could technically be hazardous wastes (e.g., old solvents, paints, pesticides, fertilizers, or poisons). However, it would be impossible to regulate every house in the United States that occasionally threw away a can of paint thinner or a bottle of rat poison. Therefore, EPA developed the household waste exclusion. Under this exclusion, wastes generated by normal household activities (e.g., routine house and yard maintenance) are excluded from the definition of hazardous waste. EPA has expanded the exclusion to include household-like areas, such as bunkhouses, ranger stations, crew quarters, campgrounds, picnic grounds, and day-use recreation areas. While household hazardous waste is excluded from Subtitle C, it is regulated under Subtitle D as a solid waste (as discussed in Chapter II).

Agricultural Waste

To prevent overregulation of farms and promote waste recycling, solid wastes generated by crop or animal farming are excluded from the definition of hazardous waste provided that the wastes are returned to the ground as fertilizers or soil conditioners. Examples of such wastes are crop residues and manures.

Mining Overburden

After an area of a surface mine has been depleted, it is common practice to return to the mine the earth and rocks (overburden) that were removed to gain access to ore deposits. When the material is returned to the mine site, it is not a hazardous waste under RCRA.

Bevill and Bentsen Wastes

In the Solid Waste Disposal Act Amendments of 1980, Congress amended RCRA by exempting oil, gas, and geothermal exploration, development, and production wastes (**Bentsen wastes**); fossil fuel combustion wastes; mining and mineral processing wastes; and cement kiln dust wastes (**Bevill wastes**) from the definition of hazardous waste pending further study by EPA. These wastes were temporarily exempted because they were produced in very large volumes, were thought to pose less of a hazard than other wastes, and were generally not amenable to the management practices required under RCRA. The following paragraphs describe these exclusions in detail.

Fossil Fuel Combustion Waste

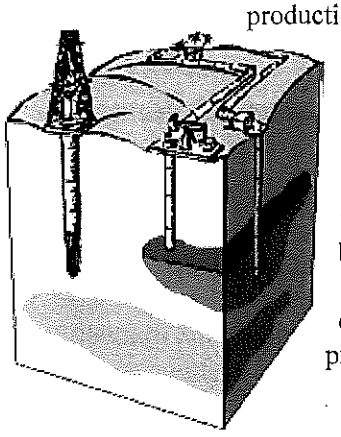
In order to accommodate effective study, fossil fuel combustion wastes were divided into two categories, large-volume coal-fired utility wastes and remaining wastes. After studying these wastes, in 1993, EPA decided to permanently exclude large- volume coal-fired utility wastes, including fly ash, bottom ash, boiler slag, and flue gas emission control waste

from the definition of hazardous waste. Further study by EPA, in 2000, indicated that all remaining fossil fuel combustion wastes need not be regulated under RCRA Subtitle C. However, EPA determined that national non-hazardous waste regulations under RCRA Subtitle D are appropriate for coal combustion wastes (CCW) disposed in surface impoundments and landfills and used as minefill.

In 2007, EPA published a Notice of Data Availability (NODA) regarding the management of CCW in landfills and surface impoundments. After the failure of the coal combustion residual (CCR) surface impoundment at the Tennessee Valley Authority's Kingston facility in December 2008, EPA undertook an effort to assess the structural integrity of other CCR surface impoundments. In 2010, EPA proposed two regulatory options under RCRA for the disposal of CCRs generated from electric utilities and independent power producers. Under the first proposal, EPA would revise its previous regulatory determination and would regulate these residuals as special wastes under Subtitle C when they are destined for disposal in landfills or surface impoundments. Under the second proposal, EPA would maintain the initial regulatory determination and regulate disposal of such materials under Subtitle D by issuing national minimum criteria. EPA also issued a subsequent NODA about additional information regarding CCR surface impoundments at electric utilities. EPA will use comments and information received in response to the proposed rule and NODA as the Agency follows up on the regulatory determination.

Oil, Gas, and Geothermal Wastes

Certain wastes from the exploration and production of oil, gas, and geothermal energy are excluded from the definition of hazardous waste. These wastes include those that have been brought to the surface during oil and gas exploration and production operations, and other wastes that have come into contact with the oil and gas production stream (e.g., during removal of waters injected into the drill well to cool the drill bit).



Mining and Mineral Processing Wastes

Certain wastes from the mining, refining, and processing of ores and minerals are excluded from the definition of hazardous waste.

Cement Kiln Dust

Cement kiln dust is a fine-grained solid by-product generated during the cement manufacturing process and captured in a facility's air pollution control system. After study, EPA decided to develop specific regulatory provisions for cement kiln dust. Until EPA promulgates these new regulatory controls, however, cement kiln dust will generally remain excluded from the definition of hazardous waste.

Trivalent Chromium Wastes

The element chromium exists in two forms, hexavalent and trivalent. EPA determined that while hexavalent chromium poses enough of a threat to merit regulation as a characteristic hazardous waste, trivalent chromium does not. Therefore, to prevent unnecessary regulation, EPA excluded, from the definition of hazardous waste, trivalent chromium- bearing hazardous wastes from certain leather tanning, shoe manufacturing, and leather manufacturing industries.

Arsenically Treated Wood

Discarded arsenically treated wood or wood products that are hazardous only because they exhibit certain toxic characteristics (e.g., contain certain concentrations of leachable metal, pesticide, or organic constituents) are excluded from the definition of hazardous waste. Once such treated wood is used, it may be disposed of by the user (commercial or residential) without being subject to hazardous waste regulation. This exclusion is based on the fact that the use of such wood products on the land is similar to the common disposal method, which is landfilling. This exclusion applies only to end-users and not to manufacturers.

Petroleum-Contaminated Media and Debris from Underground Storage Tanks (USTs)

USTs are used to store petroleum (e.g., gasoline, oil) and hazardous substances (e.g., ammonia). When these tanks leak, the UST program under RCRA Subtitle I provides requirements for cleaning up such spills. To facilitate the corrective action process under the UST regulations, contaminated media (soils and ground water) and debris (tanks and equipment) at sites undergoing UST cleanup that are hazardous only because they exhibit certain toxic characteristics (e.g., contain specific concentrations of leachable organic constituents) are excluded from the definition of hazardous waste.

Spent Chlorofluorocarbon Refrigerants

Chlorofluorocarbons (CFCs) released to the atmosphere damage the stratospheric ozone layer. To promote recycling and discourage the practice of venting used CFCs to the atmosphere as a means of avoiding Subtitle C regulation, EPA excluded recycled CFCs from the definition of hazardous waste since the refrigerants are generally reclaimed for reuse.

Used Oil Filters

In order to promote the recycling and recovery of metals and other products from used oil filters, EPA exempted used oil filters that have been properly drained to remove the used oil.

Used Oil Distillation Bottoms

When used oil is recycled, residues (called **distillation bottoms**) form at the bottom of the recycling unit. To promote used oil recycling and the beneficial reuse of waste materials, EPA excluded these residues from the definition of hazardous waste when the bottoms are used as ingredients in asphalt paving and roofing materials.

Landfill Leachate or Gas Condensate Derived from Certain Listed Wastes

Landfill leachate and landfill gas condensate derived from previously disposed wastes, where such wastes now meet the listing description of one or more of the following listed wastes: K169, K170, K171, K172, K176, K177, K178, and K181, would be regulated as a listed hazardous waste. However, EPA temporarily deferred such landfill leachate and gas condensate from the definition of hazardous waste provided their discharge is regulated under CWA. The exclusion will remain effective while EPA studies how the landfill leachate and landfill gas condensate are currently managed, and the effect of future CWA effluent limitation guidelines for landfill wastewaters.

Disposable Solvent-Contaminated Wipes

EPA conditionally excludes solvent-contaminated wipes (except for wipes that are hazardous due to the presence of trichloroethylene) that are sent for disposal, e.g., to a combustor or landfill. Solvent-contaminated wipes must be managed in non-leaking, closed containers and be labeled. Additionally, solvent-contaminated wipes cannot be accumulated for more than 180 days and must contain no free liquids when sent for cleaning. Generators must also maintain certain records and the combustor or landfill must be regulated under the respective Clean Air Act or RCRA regulations.

■ Raw Material, Product Storage, and Process Unit Waste Exclusions

Hazardous wastes generated in raw material, product storage, or process (e.g., manufacturing) units are exempt from Subtitle C hazardous waste regulation while the waste remains in such units. These units include tanks, pipelines, vehicles, and vessels used either in the manufacturing process or for storing raw materials or products, but specifically do not include surface impoundments. Once the waste is removed from the unit, or when a unit temporarily or permanently ceases operation for 90 days, the waste is considered generated and is subject to regulation.

■ Sample and Treatability Study Exclusions

Hazardous waste samples are small, discrete amounts of hazardous waste that are essential to ensure accurate characterization and proper hazardous waste treatment. In order to facilitate the analysis of these materials, RCRA exempts characterization samples and treatability study samples from Subtitle C hazardous waste regulation.

Waste Characterization Samples

Samples sent to a lab to determine whether or not a waste is hazardous are exempt from regulation. Such samples (typically less than one gallon of waste) are excluded from Subtitle C regulation, provided that these samples are collected and shipped for the sole purpose of determining hazardous waste characteristics or composition. Storage, transportation, and testing of the sample are excluded from RCRA regulation even when the lab testing is complete, provided the sample is returned to the generator, and other specific provisions are met. When shipping the sample to or from the laboratory, the sample collector must comply with certain labeling requirements, as well as any applicable U.S. Postal Service (USPS) or U.S. Department of Transportation (DOT) shipping requirements.

Treatability Study Samples

To determine if a particular treatment method will be effective on a given waste or what types of wastes remain after the treatment is complete, facilities send samples of waste to a lab for testing. EPA conditionally exempts those who generate or collect samples for the sole purpose of conducting treatability studies from the hazardous waste regulations, provided that certain requirements, including packaging, labeling, and recordkeeping provisions, are met. In addition, under specific conditions, laboratories conducting such treatability studies may also be exempt from Subtitle C regulation.



■ Dredge Materials Exclusions

Dredge materials subject to the permitting requirements of 404 of the Federal Water Pollution Control Act of Section 103 of the Marine Protection, Research, and Sanctuaries Act of 1972 are not considered hazardous wastes.



IS THE WASTE A LISTED HAZARDOUS WASTE?

After a facility determines that its waste is a solid waste and is not excluded from the definitions of solid or hazardous waste, the owner and operator must determine if the waste is a hazardous waste. The first step in this process is determining if the waste is a listed hazardous waste. The hazardous waste listings consist of four lists:

- The F list
- The K list
- The P list
- The U list.

Listed wastes are wastes from generic industrial processes, wastes from certain sectors of industry, and unused pure chemical products and formulations. Because these wastes are dangerous enough to warrant full Subtitle C regulation based on their origin, any waste fitting a narrative listing description is considered a listed hazardous waste.

■ Listing Criteria

Before developing each hazardous waste listing, EPA thoroughly studies a particular wastestream and the threats that it can pose to human health and the environment. If the waste poses sufficient threat, EPA includes a precise description of that

DEFINITION OF HAZARDOUS WASTE

In RCRA §1004(5), Congress defined hazardous waste as a solid waste, or combination of solid wastes, which because of its quantity, concentration, or physical, chemical, or infectious characteristics may:

a. Cause, or significantly contribute to, an increase in mortality or an increase in serious irreversible, or incapacitating reversible, illness; or

b. Pose a substantial present or potential hazard to human health or the environment when improperly treated, stored, transported, or disposed of, or otherwise managed.

Based on this broad definition, Congress instructed EPA to develop more specific criteria for defining solid and hazardous waste. Congress believed that EPA should define hazardous waste using two different mechanisms: by listing certain specific solid wastes as hazardous (i.e., wastes from certain industrial processes or sources), and by identifying characteristics (i.e., physical or chemical properties) which, when exhibited by a solid waste, make it hazardous. Taking Congress' lead, EPA proceeded to develop an elaborate definition of hazardous waste that included both of these mechanisms.

waste on one of four hazardous waste lists within the regulations.

In order to determine whether a waste should be listed in the first place, the Agency developed a set of criteria to use as a guide and a consistent frame of reference when considering listing a wastestream. These criteria were developed by EPA to use in evaluating whether a waste warranted being listed as a hazardous waste. These listing criteria cannot be used by waste handlers for waste identification purposes. Waste handlers must instead consult the actual listings to determine if their waste is regulated as a listed hazardous waste.

There are three different criteria EPA uses to decide whether or not to list a waste as hazardous. The three criteria are:

- The waste typically contains toxic chemicals at levels that could pose a threat to human health and the environment if improperly managed. Such wastes are known as toxic listed wastes.
- The waste contains such dangerous chemicals that it could pose a threat to human health and the environment even when properly managed. These wastes are fatal to humans and animals even in low doses. Such wastes are known as acute hazardous wastes.
- The waste typically exhibits one of the four characteristics of hazardous waste: ignitability, corrosivity, reactivity, and toxicity.

In addition, EPA may list a waste as hazardous, if it has cause to believe that, for some other reason, the waste typically fits within the statutory definition of hazardous waste developed by Congress.

■ Hazardous Waste Listings

EPA has applied the listing criteria to hundreds of specific industrial wastestreams. These wastes are grouped into the four lists located at 40 CFR Part 261, Subpart D. Listed wastes are organized as follows:

- The F list—The F list includes wastes from certain common industrial and manufacturing processes. Because the processes generating these wastes can occur in different sectors of industry, the F list wastes are known as wastes from nonspecific sources. The F list is codified in the regulations in 40 CFR §261.31.
- The K list—The K list includes wastes from specific industries. As a result, K list wastes are

HAZARD CODES

To indicate its reason for listing a waste, EPA assigns a hazard code to each waste listed on the F, K, P, and U lists. The last four hazard codes in the table below apply to wastes that have been listed because they typically exhibit one of the four regulatory characteristics of hazardous waste. The first two hazard codes apply to listed wastes whose constituents pose additional threats to human health and the environment. The hazard codes indicating the basis for listing a waste are:

Toxic Waste	(T)
Acute Hazardous Waste	(H)
Ignitable Waste	(I)
Corrosive Waste	(C)
Reactive Waste	(R)
Toxicity Characteristic Waste	(E)

The hazard codes assigned to listed wastes affect the regulations that apply to handling the waste. For instance, acute hazardous wastes accompanied by the hazard code (H) are subject to stricter management standards than most other wastes.

known as wastes from specific sources. The K list is found in 40 CFR §261.32.

- The P list and the U list—These two lists include pure or commercial grade formulations of specific unused chemicals. Chemicals are included on the P list if they are acutely toxic. A chemical is acutely toxic if it is fatal to humans in low doses, if scientific studies have shown that it has lethal effects on experimental organisms, or if it causes serious irreversible or incapacitating illness. The U list is generally comprised of chemicals that are toxic, but also includes chemicals that display other characteristics, such as ignitability or reactivity. Both the P list and U list are codified in 40 CFR §261.33.

Each list includes anywhere from 30 to a few hundred listed hazardous wastestreams. All of the wastes on these lists are assigned an identification number (i.e., a waste code) consisting of the letter associated with the list (i.e., F, K, P, or U) followed by three numbers. For example, wastes on the F list may be assigned a waste code ranging from F001 to F039, while wastes on the K list may be assigned a waste code ranging from K001 to K181. These waste codes are an important part of the RCRA regulatory system since waste code assignment has important implications for the future management standards that will apply to the waste.

A user-friendly reference document containing a collection of written materials about specific issues related to the hazardous waste listings can be found at www.epa.gov/epawaste/hazard/wastetypes/pdfs/listing-ref.pdf.

The F List: Wastes From Nonspecific Sources

The F list designates hazardous wastes from common industrial and manufacturing processes. The F list wastes can be divided into seven groups, depending on the type of manufacturing or industrial operation that creates them:

- Spent solvent wastes (waste codes F001 through F005)
- Electroplating and other metal finishing wastes (F006 through F012 and F019)
- Dioxin-bearing wastes (F020 through F023 and F026 through F028)
- Chlorinated aliphatic hydrocarbons production wastes (F024 and F025)
- Wood preserving wastes (F032, F034, and F035)
- Petroleum refinery wastewater treatment sludges (F037 and F038)
- Multisource leachate (F039).

Spent Solvent Wastes

The spent solvent waste listings (F001 through F005) apply to wastestreams that are generated from the use of certain common organic solvents.

Solvents are commonly used in various industries, such as mechanical repair, dry cleaning, and electronics manufacturing, for degreasing and cleaning in addition to other functions. While solvents are chemicals with many uses, these listings only apply to solvents that are used as solvents for their solvent properties (e.g., to solubilize, dissolve, or mobilize other constituents) and are spent (e.g., cannot be used further without reprocessing). In addition, these listings only apply to solvents that contain one or more of the specific organic solvent constituents found in the F001-F005 narrative descriptions. Lastly, these listings only cover solvents that were above a certain concentration before use.

Electroplating and Other Metal Finishing Wastes

The electroplating and other metal finishing waste listings (F006 through F012 and F019) apply to wastestreams that are commonly produced during electroplating and other metal finishing operations. Diverse industries use electroplating and other methods to change the surface of metal objects in order to enhance the appearance of the objects, make them more resistant to corrosion, or impart some other desirable property to them. Industries involved in plating and metal finishing range from jewelry manufacture to automobile production.

Dioxin-Bearing Wastes

The dioxin-bearing waste listings (F020 through F023 and F026 through F028) describe a number of wastestreams that EPA believes are likely to contain dioxins, which are allegedly among the most dangerous known chemical compounds. The dioxin listings apply primarily to manufacturing process wastes from the production of specific

pesticides or specific chemicals used in the production of pesticides. With the exception of F028, all of the dioxin-bearing wastes are considered acutely hazardous wastes and are designated with the hazard code (H). These wastes are therefore subject to stricter management standards than other hazardous wastes.

Chlorinated Aliphatic Hydrocarbon Production Wastes

The F024 and F025 listings apply to specific chlorinated aliphatic production wastes (exclusive of wastewaters and wastewater treatment sludges). K174 and K175 listings apply to certain wastewater treatment sludges associated with chlorinated aliphatic production. Chlorinated aliphatic chemicals are produced for use in the manufacture of other chemical products, most notably to make vinyl chloride, the main ingredient in PVC, a widely-used plastic.

Wood Preserving Wastes

The wood preserving waste listings (F032, F034, and F035) apply to certain wastes from wood preserving operations. Wood used for certain applications is chemically treated to slow the deterioration caused by decay and insects. For example, telephone poles, railroad cross ties, and other wood products are treated to withstand the rigors of outdoor use.

Wood preservation typically involves pressure-treating lumber with pentachlorophenol, creosote, or preservatives containing arsenic or chromium. The wood preserving process creates wastestreams containing these chemicals, such as excess preservative solution that drips from wood products after treatment. Waste from wood preservation using pentachlorophenol is F032, waste from use of creosote is F034, and waste from treating wood with arsenic or chromium is F035.

Another listing, K001, applies to bottom sediment sludges from treating wastewaters associated with wood preserving using creosote and/or pentachlorophenol.

Petroleum Refinery Wastewater Treatment Sludges

The petroleum refinery wastewater treatment sludge listings apply to specific wastestreams from petroleum refineries. The petroleum refining process typically creates large quantities of contaminated wastewater. Before this wastewater can be discharged to a river or sewer, it must be treated to remove oil, solid material, and chemical pollutants.

To remove these hydrocarbons from the wastewater, refineries typically use two methods. In the first step, gravity separates the pollutants from the wastewater. The solids and heavier pollutants sink to the bottom of a tank, forming a sludge, while the lighter materials (called **float**) float to the surface of the wastewater, where they can be skimmed off. The second step uses physical (stirring or agitating) and chemical means to separate remaining pollutants from the wastewater into sludge and float. Most of these various wastewater treatment residues are listed hazardous wastes (K048-K051, F037, F038) either when generated in specific types of units (e.g., K048 from DAF units, or K049 from API separators, etc.) or more generically based upon the type of wastewater treatment process (e.g., F037 for sludges generated by gravitational separation, F038 sludges and/or floats generated by other physical or chemical means).

Other petroleum listings that are not directly associated with wastewater treatment residuals include K171 and K172 (spent hydroprocessing catalysts), K052 and K169 (tank bottoms from leaded gasoline storage and crude oil storage tanks, respectively), and K170 (sediment from clarified slurry oil storage and/or filtration).

Multisource Leachate

The F039 listing applies to multisource leachate, the liquid material that accumulates at the bottom of a hazardous waste landfill. The leachate that percolates through landfills, particularly hazardous waste landfills, usually contains high concentrations of chemicals and is often collected to minimize the potential for it to enter and contaminate the soil or ground water below the unit.

The K List: Wastes From Specific Sources

The K list designates hazardous wastes from specific sectors of industry and manufacturing. Like F list wastes, K list wastes are manufacturing process wastes.

To determine whether a waste qualifies as K-listed, a facility must first determine whether the waste fits within one of the 13 different industrial or manufacturing categories on the list. Second, a facility must determine if this waste matches one of the detailed K list waste descriptions in 40 CFR §261.32. The 13 industries that generate K list wastes are:

- Wood preservation
- Organic chemicals manufacturing
- Pesticides manufacturing
- Petroleum refining
- Veterinary pharmaceuticals manufacturing
- Inorganic pigment manufacturing
- Inorganic chemicals manufacturing
- Explosives manufacturing
- Iron and steel production
- Primary aluminum production
- Secondary lead processing
- Ink formulation
- Coking (processing of coal to produce coke, a material used in iron and steel production).

Previously, the K list also included waste codes for 17 different industries. However, due to various court actions taken, EPA withdrew the K waste codes applicable to wastestreams in the primary copper, primary lead, primary zinc, and ferroalloys industries.

The P and U Lists: Discarded Commercial Chemical Products

The P and U lists designate as hazardous waste pure and commercial grade formulations of certain unused chemicals that are being disposed. Unused chemicals may become wastes for a number of reasons. For example, some unused chemicals are spilled by accident. Others are intentionally discarded because they are off-specification and cannot serve the purpose for which they were originally produced. For a waste to qualify as P- or U-listed, the waste must meet the following three criteria:

- The waste must contain one of the chemicals listed on the P or U list
- The chemical in the waste must be unused
- The chemical in the waste must be in the form of a **commercial chemical product** (CCP).

For purposes of the P and U lists, a CCP is defined as a chemical that is one of the following:

- 100 percent pure
- Technical (e.g., commercial) grade
- The sole active ingredient in a chemical formulation.

While 100 percent pure means that the chemical is the only chemical constituent in the product, **technical grade** means that the formulation is not 100 percent pure, but is of a grade of purity that is either marketed or recognized in general usage by the chemical industry. **Sole active ingredient** means that the chemical is the only ingredient serving the function of the formulation. For instance, a pesticide made for killing insects may contain a poison such as heptachlor, as well as various solvent ingredients that act as carriers or lend other desirable properties to the poison. Although all of these chemicals may be capable of killing insects, only the heptachlor serves the primary purpose of the insecticide product. The other chemicals involved are present for other reasons, not because they are poisonous. Therefore, heptachlor is the sole active ingredient in such a formulation even though it may be present in low concentrations.

■ Wastes Listed Solely for Exhibiting the Characteristic of Ignitability, Corrosivity, and/or Reactivity

Hazardous wastes listed solely for exhibiting the characteristic of ignitability, corrosivity, and/or reactivity are not regulated the same way that other listed hazardous wastes are regulated under RCRA. When a waste meets a listing description for one of the 29 wastes listed solely for exhibiting the characteristic of ignitability, corrosivity, and/or reactivity, the waste is not hazardous if it does not exhibit that characteristic at the point of generation. For example, F003 is listed for the characteristic of ignitability. If a waste is generated and meets the listing description for F003 but does not exhibit the characteristic of ignitability, it is not regulated as a hazardous waste.

Figure III-8: The Mixture Rule

■ Delistings

The RCRA regulations provide a form of relief for listed wastes with low concentrations of hazardous constituents. Through a site-specific process known as **delisting**, a waste handler can submit to an EPA region or authorized state a petition demonstrating that, even though a particular wastestream generated at its facility is a listed hazardous waste, it does not pose sufficient hazard to merit RCRA regulation. For example, a waste generated at a specific facility may meet a listing description even though the process uses different raw materials than EPA assumed were used when listing the waste; thus the waste may not contain the contaminants for which it was listed. Similarly, after treatment of a listed waste, the residue may no longer pose a threat to human health and the environment.

Specifically, the petition must demonstrate that the waste does not:

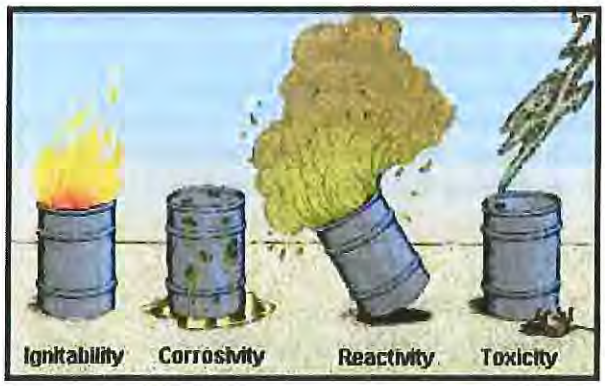
- Meet the criteria for which it was listed
- Exhibit any hazardous waste characteristics (as discussed later in this chapter)
- Pose a threat to human health and the environment by being hazardous for any other reason (e.g., does not contain additional constituents that could pose a threat).

If the EPA region or state grants a delisting petition, the particular wastestream at that facility will not be regulated as a listed hazardous waste.

IS THE WASTE A CHARACTERISTIC HAZARDOUS WASTE?

After a facility determines its waste is a solid waste and is not excluded from the definitions of solid or hazardous waste, it must determine if the waste is a hazardous waste. This entails determining if the waste is listed and also if the waste is characteristic. Even if a waste is a listed hazardous waste, the facility must also determine if the waste exhibits a hazardous characteristic by testing or applying knowledge of the waste.

Characteristic wastes are wastes that exhibit measurable properties which indicate that a waste poses enough of a threat to warrant regulation as



hazardous waste. EPA tried to identify characteristics that, when present in a waste, can cause death or injury to humans or lead to ecological damage. The characteristics identify both acute (near-term) and chronic (long-term) hazards, and are an essential supplement to the hazardous waste listings. For example, some wastes may not meet any listing description because they do not originate from specific industrial or process sources, but the waste may still pose threats to human health and the environment. Therefore, a facility is also required to determine whether such a waste possesses a hazardous property (i.e., exhibits a hazardous waste characteristic). The characteristics are applied to any RCRA solid waste from any industry.

Even if a waste does meet a hazardous waste listing description, the facility must still determine if the waste exhibits a characteristic. If such listed wastes do exhibit a characteristic, the waste poses an additional hazard to human health and the environment, and may necessitate additional regulatory precautions. For example, wastes that are both listed and characteristic may have more extensive **land disposal restrictions (LDR)**

DETERMINING BOTH LISTINGS AND CHARACTERISTICS

A facility must determine both listings and characteristics. Even if a waste is a listed hazardous waste, the facility must then still determine if the waste exhibits a characteristic because waste generators are required to fully characterize their listings. While some wastes may not meet any listing description because they do not originate from specific industrial or process sources, the waste may still pose threats to human health and the environment. As a result, a facility is also required to determine whether such a waste possesses a hazardous property (i.e., exhibits a hazardous waste characteristic).

requirements than those that are only listed (the LDR program is fully discussed in Chapter III, Land Disposal Restrictions).

EPA decided that the characteristics of hazardous waste should be detectable by using a standardized test method or by applying general knowledge of the waste's properties. Given these criteria, EPA established four hazardous waste characteristics:

- Ignitability
- Reactivity
- Corrosivity
- Toxicity.

A user-friendly reference document containing a collection of written materials about specific issues related to the hazardous waste characteristics can be found at www.epa.gov/epawaste/hazard/wastetypes/wasteid/char/hw-char.pdf.

■ Ignitability

The ignitability characteristic identifies wastes that can readily catch fire and sustain combustion.

The **ignitability characteristic** identifies wastes that can readily catch fire and sustain combustion. Many paints, cleaners, and other industrial wastes pose such a hazard. Liquid and nonliquid wastes are treated differently by the ignitability characteristic.

Most ignitable wastes are liquid in physical form. EPA selected a flash point test as the method for determining whether a liquid waste is combustible enough to deserve regulation as hazardous. The flash point test determines the lowest temperature at which the fumes above a waste will ignite when exposed to flame. Liquid wastes with a flash point of less than 60°C (140°F) in closed-cup test are ignitable.

Many wastes in solid or nonliquid physical form (e.g., wood or paper) can also readily catch fire and sustain combustion, but EPA did not intend to regulate most of these nonliquid materials as ignitable wastes. A nonliquid waste is considered ignitable only if it can spontaneously catch fire or catch fire through friction or absorption of moisture under normal handling conditions and can burn so vigorously that it creates a hazard. Certain compressed gases are also classified as ignitable. Finally, substances meeting the DOT's definition of oxidizer are classified as ignitable wastes. Ignitable wastes carry the waste code D001 and are among some of the most common hazardous wastes. The regulations describing the characteristic of ignitability are codified in 40 CFR §261.21.

■ Corrosivity

The corrosivity characteristic identifies wastes that are acidic or alkaline (basic) and can readily corrode or dissolve flesh, metal, or other materials.

The **corrosivity characteristic** identifies wastes that are acidic or alkaline (basic). Such wastes can readily corrode or dissolve flesh, metal, or other materials. They are also among some of the most common hazardous wastes.

An example is waste sulfuric acid from automotive batteries. EPA uses two criteria to identify liquid and aqueous corrosive hazardous wastes. The first is a pH test. Aqueous wastes with a pH greater than or equal to 12.5 or less than or equal to 2 are corrosive. A liquid waste may also be corrosive if it has the ability to corrode steel under specific conditions. Physically solid, nonaqueous wastes are not evaluated for corrosivity. Corrosive wastes carry the waste code D002. The regulations describing the corrosivity characteristic are found in 40 CFR §261.22.

■ Reactivity

The reactivity characteristic identifies wastes that readily explode or undergo violent reactions.

The **reactivity characteristic** identifies wastes that readily explode or undergo violent reactions or react to release toxic gases or fumes. Common examples are discarded munitions or explosives. In many cases, there is no reliable test method to evaluate a waste's potential to explode, react violently, or release toxic gas under common waste handling conditions. Therefore, EPA uses narrative criteria to define most reactive wastes. The narrative criteria, along with knowledge or information about the waste properties, are used to classify waste as reactive.

A waste is reactive if it meets any of the following criteria:

- It can explode or violently react when exposed to water or under normal handling conditions

- It can create toxic fumes or gases at hazardous levels when exposed to water or under normal waste handling conditions
- It can explode if heated under confinement or exposed to a strong igniting source, or it meets the criteria for classification as an explosive under DOT rules
- It generates toxic levels of sulfide or cyanide gas when exposed to a pH range of 2 through 12.5.

Wastes exhibiting the characteristic of reactivity are assigned the waste code D003. The reactivity characteristic is described in the regulations in 40 CFR §261.23.

■ Toxicity

The toxicity characteristic identifies wastes that are likely to leach dangerous concentrations of toxic chemicals into ground water.

When hazardous waste is disposed of in a land disposal unit, toxic compounds or elements can leach into underground drinking water supplies and expose users of the water to hazardous chemicals and constituents. EPA developed the **toxicity characteristic (TC)** to identify wastes likely to leach dangerous concentrations of toxic chemicals into ground water.

In order to predict whether any particular waste is likely to leach chemicals into ground water at dangerous levels, EPA designed a lab procedure to estimate the leaching potential of waste when disposed in a municipal solid waste landfill. This lab procedure is known as the **Toxicity Characteristic Leaching Procedure (TCLP)**.

The TCLP requires a generator to create a liquid leachate from its hazardous waste samples. This leachate would be similar to the leachate generated by a landfill containing a mixture of household and industrial wastes. Once this leachate is created via the TCLP, the waste generator must determine whether it contains any of 40 different toxic chemicals in amounts above the specified regulatory levels (see Figure III-7). These regulatory levels are based on ground water modeling studies and toxicity data that calculate the limit above which these common toxic compounds and elements will threaten human health and the environment by contaminating drinking water. If the leachate sample contains a concentration above the regulatory limit for one of the specified chemicals, the waste exhibits the toxicity characteristic and carries the waste code associated with that compound or element. The TCLP may not be used however, for determining whether remediation waste from manufactured gas plants (MGP) is hazardous under RCRA. Therefore, MGP remediation wastes are exempt from TC regulation. The regulations describing the toxicity characteristic are codified in 40 CFR §261.24, and

Figure III-7: TCLP Regulatory Levels

Waste Code	Contaminant	Concentration (mg/L)
D004	Arsenic	5.0
D005	Barium	100.0
D018	Benzene	0.5
D006	Cadmium	1.0
D019	Carbon tetrachloride	0.5
D020	Chlordane	0.03
D021	Chlorobenzene	100.0
D022	Chloroform	6.0
D007	Chromium	5.0
D023	o-Cresol*	200.0
D024	m-Cresol*	200.0
D025	p-Cresol*	200.0
D026	Total Cresol*	200.0
D016	2,4-D	10.0
D027	1,4-Dichlorobenzene	7.5
D028	1,2-Dichloroethane	0.5
D029	1,1-Dichloroethylene	0.7
D030	2,4-Dichlorotoluene	0.13
D012	Endrin	0.02
D031	Heptachlor (and its epoxide)	0.008
D032	Hexachlorobenzene	0.13
D033	Hexachlorobutadiene	0.5
D034	Hexachloromethane	3.0
D008	Lead	5.0
D013	Lindane	0.4
D009	Mercury	0.2
D014	Methoxychlor	10.0
D035	Methylethylketone	200.0
D036	Nitrobenzene	2.0
D037	Pentachlorophenol	100.0
D038	Pyridine	5.0
D010	Selenium	1.0
D011	Silver	5.0
D039	Tetrachloroethylene	0.7
D015	Toxaphene	0.5
D040	Trichloroethylene	0.5
D041	2,4,5-Trichlorophenol	400.0
D042	2,4,6-Trichlorophenol	2.0
D017	2,4,5-TP (Silver)	1.0
D043	Vinyl chloride	0.2

* If 0-, m-, and p-cresols cannot be individually measured, the regulatory level for total cresols is used.

the TC regulatory levels appear in Table 1 of that same section.

The TCLP is one of the test methods contained in *Test Methods for Evaluating Solid Waste, Physical/ Chemical Methods*, also known as SW-846. SW-846 is EPA's official compendium of analytical and sampling methods that have been evaluated and approved for use in complying with RCRA regulations. In support of the RCRA program, EPA employs analytical chemistry and characteristic testing methodologies, environmental sampling and monitoring, and quality assurance. SW-846 and additional information about RCRA test methods can be found at www.epa.gov/epawaste/hazard/testmethods.

SPECIAL REGULATORY CONVENTIONS

Once a facility generates a hazardous waste, the waste may become mixed with other wastes, be treated and produce residues, or even be spilled. RCRA provides special regulatory provisions to address the regulatory status of hazardous wastes in these situations.

■ Mixture Rule

The **mixture rule** is intended to ensure that mixtures of listed wastes with nonhazardous solid wastes are regulated in a manner that minimizes threats to human health and the environment.

Listed Wastes

The mixture rule regulates a combination of any amount of a nonhazardous solid waste and any amount of a listed hazardous waste as a listed hazardous waste (see Figure III-8). Even if a small vial of listed waste is mixed with a large quantity of nonhazardous waste, the resulting mixture bears the exemptions same waste code and regulatory status as the original listed component of the mixture, unless the generator obtains a delisting. This is intended to prevent a facility from mixing a listed waste with a nonhazardous waste in order to escape having to manage the waste as hazardous.

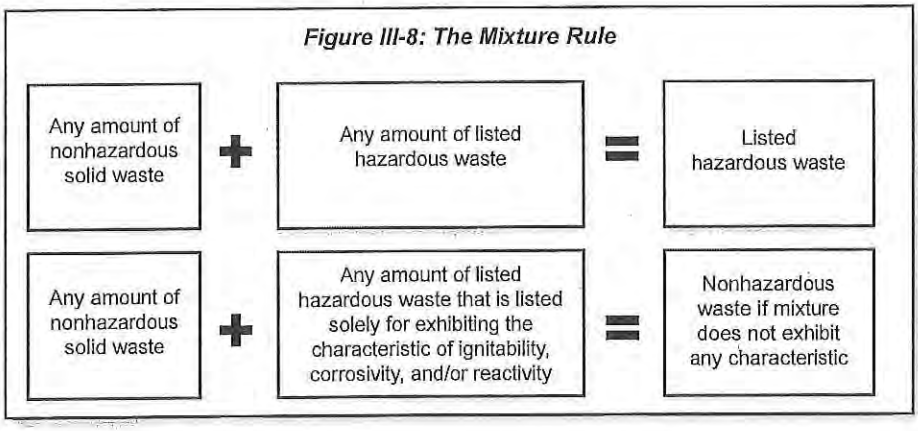
Characteristic Wastes

The mixture rule applies differently to listed and characteristic wastes. A mixture involving characteristic wastes is hazardous only if the mixture itself exhibits a characteristic. Characteristic wastes are hazardous because they possess one of four unique and measurable properties. Once a characteristic waste no longer exhibits one of these four dangerous properties, it no longer deserves regulation as hazardous. Thus, a characteristic waste can be made nonhazardous by treating it to remove its hazardous property; however, EPA places certain restrictions on the manner in which a waste can be treated. (These restrictions will be discussed in Chapter III, Land Disposal Restrictions).

Wastes Listed Solely for Exhibiting the Characteristic of Ignitabilty, Corrosivity, and/or Reactivity

All wastes listed solely for exhibiting the characteristic of ignitability, corrosivity and/ or reactivity characteristic are not regulated as hazardous wastes once they no longer exhibit a characteristic. If a hazardous waste listed only for a characteristic is mixed with a solid waste, the original listing does not carry through to the resulting mixture if that mixture does not exhibit any hazardous waste characteristics. For example, EPA listed the F003 spent solvents as hazardous because these wastes typically display the ignitability characteristic. If F003 waste is treated by mixing

Figure III-8: The Mixture Rule



it with another waste, and the resulting mixture does not exhibit a characteristic, the F003 listing no longer applies.

Exemptions

There are several exemptions from the mixture rule. One exemption applies to certain listed hazardous wastes that are discharged to wastewater treatment facilities in very small or ***de minimis*** amounts. Many industrial facilities produce large quantities of nonhazardous wastewaters as their primary wastestreams. These wastewaters are typically discharged to a water body or local sewer system after being treated to remove pollutants, as required by CWA. At many of these large facilities, on-site cleaning, chemical spills, or laboratory operations create relatively small amounts of hazardous waste. For example, a textile plant producing large quantities of nonhazardous wastewater can generate a secondary wastestream of listed spent solvents from cleaning equipment. Routing such secondary hazardous wastestreams to the facility's wastewater treatment system is a practical way of treating and disposing of these wastes. This management option triggers the mixture rule, since even a very small amount of a listed wastestream combined with very large volumes of nonhazardous wastewater causes the entire mixture to be listed. EPA provided an exemption from the mixture rule for situations where relatively small quantities of listed hazardous wastes are routed to large-volume wastewater treatment systems.

Other exemptions apply to mixtures of listed and characteristic wastes with mining and mineral processing wastes that are excluded from the definition of hazardous waste under the Bevill exemption. Wastes that are hazardous via the mixture rule can also exit Subtitle C regulation through the delisting process.

■ Derived-From Rule

Hazardous waste treatment, storage, and disposal processes often generate residues that may contain high concentrations of hazardous constituents. In order to adequately protect human health and the environment from the threats posed by these potentially harmful wastes, the **derived-from rule** governs the regulatory status of such listed waste residues.

Figure III-9: The Derived-From Rule

Listed Hazardous Waste

Any residue from the treatment, storage, or disposal or a listed waste...

...is still a hazardous waste...

...unless the residue is derived-from a hazardous waste that is listed solely for exhibiting the characteristic of ignitability, corrosivity, and/or reactivity and does not exhibit a characteristic of hazardous waste

or

...unless the waste is recycled to make new products or processed to recover usable materials with economic value (provided that product is not used in a manner constituting disposal or burned for energy recovery)

Listed Wastes

Residues produced from the treatment of listed hazardous wastes may pose a significant threat to human health and the environment. If not captured by the waste's listing description, such waste could escape regulation. To close this potential regulatory gap, EPA created the derived-from rule which states that any material derived from a listed hazardous waste is also a listed hazardous waste (see Figure III-9). For example, ash created by burning a hazardous waste is considered derived-from that hazardous waste. Thus, such ash bears the same waste code and regulatory status as the original listed waste, regardless of the ash's actual properties. This principle applies regardless of the actual health threat posed by the waste residue or the residue's chemical composition.

Characteristic Wastes

Treatment residues and materials derived from characteristic wastes are hazardous only if they themselves exhibit a characteristic.

Wastes Listed Solely for Exhibiting the Characteristic of Ignitability, Corrosivity, and/or Reactivity

If a waste derived from the treatment, storage, or disposal of a hazardous waste listed for the

characteristics of ignitability, corrosivity, and/or reactivity, no longer exhibits one of those characteristics, it is not a hazardous waste. For example, if a sludge is generated from the treatment of F003, and that sludge does not exhibit the characteristic of ignitability, corrosivity, or reactivity, the F003 listing will not apply to the sludge.

Exemptions

There are several regulatory exemptions from the derived-from rule. The first exemption applies to products reclaimed from hazardous wastes. Many listed hazardous wastes can be recycled to make new products or processed to recover usable materials with economic value. Such products derived from recycled hazardous wastes are no longer solid wastes, provided that they are not used in a manner constituting disposal or burned for energy recovery (see Figure III-9). The other exemptions from the derived-from rule apply to residues from specific treatment operations. Wastes that are hazardous via the derived-from rule can also exit Subtitle C regulation through the delisting process.

■ Contained-In Policy

Sometimes listed and characteristic wastes are spilled onto soil or contaminate equipment, buildings, or other structures. The mixture and derived-from rules do not apply to such contaminated soil and materials because these materials are not actually wastes. Soil is considered **environmental media** (e.g., soil, ground water, sediment), while the equipment, buildings, and structures are considered debris (e.g., a broad category of larger manufactured and naturally occurring objects that are commonly discarded). Examples of **debris** include:

- Dismantled construction materials, such as used bricks, wood beams, and chunks of concrete
- Decommissioned industrial equipment, such as pipes, pumps, and dismantled tanks
- Other discarded manufactured objects, such as personal protective equipment (e.g., gloves, coveralls, eyewear)
- Large, naturally occurring objects, such as tree trunks and boulders.

Environmental media and debris are contaminated with hazardous waste in a number of ways. Environmental media become contaminated through accidental spills of hazardous waste or spills of product chemicals which, when spilled, become hazardous wastes. Debris can also be contaminated through spills. Most debris in the form of industrial equipment and personal protective gear becomes contaminated with waste or product chemicals during normal industrial operations.

In order to address such contaminated media and debris, EPA created the **contained-in policy** to determine when contaminated media and debris must be managed as RCRA hazardous wastes.

Environmental media are not, in and of themselves, waste, but are regulated as hazardous waste when they contain (are contaminated by) a RCRA listed hazardous waste or exhibit a characteristic. In these cases, the media and debris must be managed as if they were hazardous waste. EPA considers contaminated media or debris to no longer contain hazardous waste when it no longer exhibits a characteristic of hazardous waste. This applies when the hazardous waste contained within the media or debris is either a characteristic waste or a waste listed solely for a characteristic. Otherwise, when dealing with listed waste contamination, EPA or states can determine that media and debris no longer contain hazardous waste by determining that the media or debris no longer poses a sufficient health threat to deserve RCRA regulation. Once this contained-out determination is made, the media and debris are generally no longer regulated under RCRA Subtitle C. However, under certain circumstances, the RCRA LDR requirements might continue to apply.

MIXED WASTE

RCRA specifically exempts certain radioactive mixed materials from the definition of solid waste. However, some radioactive material may be mixed with hazardous wastes that are regulated under RCRA. In addition, a facility may generate a hazardous waste that is also radioactive. Because the material in both of these situations contains both radioactive material and RCRA hazardous waste, it is referred to as mixed waste under RCRA. RCRA

and AEA regulate these mixed wastes jointly. AEA regulates the RCRA-exempt radioactive portion and RCRA regulates the hazardous waste portion. Mixed waste generators include DOE, power plants, labs, hospitals, and universities using radioactive materials.

EPA has provided increased flexibility to generators and facilities that manage low-level mixed waste (LLMW) and technologically enhanced naturally occurring and/or accelerator-produced radioactive material (NARM) containing hazardous waste. The Agency is exempting LLMW from some RCRA storage and treatment regulations, and LLMW or eligible NARM from RCRA hazardous waste transportation and disposal regulations. These wastes are exempt from RCRA Subtitle C requirements, including permitting, provided they meet specific conditions. The exempt wastes must then be managed as radioactive waste according to Nuclear Regulatory Commission (NRC) regulations.

SUMMARY

In order to determine if a facility is subject to RCRA Subtitle C, the owner and operator must determine if they have a hazardous waste. This determination must be made by using the following methodology:

- Is the material a solid waste?
- Is the waste excluded?
- Is the waste a listed hazardous waste?
- Is the waste a characteristic waste?

A waste must first be a solid waste before it can be a hazardous waste. A solid waste is a waste that is abandoned, inherently waste-like, a military munition, or recycled. On the other hand, if a material is directly reused without prior reclamation by being either used as an ingredient, used as a product substitute, or returned to the production process, then the material is not regulated as a waste at all. If such reused materials, however, are used in a manner constituting disposal; burned for energy recovery, used to produce a fuel, or contained in fuels; accumulated speculatively; or are dioxin-containing wastes considered inherently waste like; then they are regulated as solid wastes. If a recycled material needs reclamation prior to direct use or reuse, its regulatory status is determined by the type of material that it is:

- Spent materials are regulated as solid wastes when reclaimed; used in a manner constituting disposal; burned for energy recovery, used to produce a fuel, or contained in fuels; or accumulated speculatively.
- Listed sludges are solid wastes when reclaimed; used in a manner constituting disposal; burned for energy recovery, used to produce a fuel, or contained in fuels; or accumulated speculatively.
- Characteristic sludges are not solid wastes when reclaimed, unless they are used in a manner constituting disposal; burned for energy recovery, used to produce a fuel, or contained in fuels; or accumulated speculatively.
- Listed by-products are solid wastes when reclaimed; used in a manner constituting disposal; burned for energy recovery, used to produce a fuel, or contained in fuels; or accumulated speculatively.
- Characteristic by-products are not solid wastes when reclaimed, unless they are used in a manner constituting disposal; burned for energy recovery, used to produce a fuel, or contained in fuels; or accumulated speculatively.
- CCPs are not solid wastes when reclaimed, unless they are used in a manner constituting disposal; or burned for energy recovery, used to produce a fuel, or contained in fuels.
- Scrap metal is a solid waste when reclaimed; used in a manner constituting disposal; burned for energy recovery, used to produce a fuel, or contained in fuels; or accumulated speculatively.

Regardless of the type of recycling that takes place, it must be legitimate and not sham recycling.

Some kinds of materials are excluded from the Subtitle C hazardous waste regulations. There are five categories of exclusions:

- Exclusions from the definition of solid waste
- Exclusions from the definition of hazardous waste
- Exclusions for waste generated in raw material, product storage, or manufacturing units

- Exclusions for laboratory samples and waste treatability studies
- Exclusion for dredged material.

If the waste fits one of these categories, it is not regulated as a RCRA hazardous waste, and the hazardous waste requirements do not apply.

If the waste is a solid waste and is not excluded, a facility must determine if it is a listed hazardous waste. The F, K, P, and U lists provide narrative descriptions of wastes from specific industrial processes and sources. Wastes meeting any of these descriptions are listed hazardous wastes. However, through the delisting process, facilities can demonstrate that their wastes does not pose sufficient hazard to warrant Subtitle C regulation as a listed hazardous waste.

Wastes may also be hazardous if they exhibit a characteristic. Even if a facility's waste is listed, the owner and operator must still determine if it exhibits a characteristic. The four characteristics are:

- Ignitability
- Reactivity
- Corrosivity
- Toxicity.

There are special regulatory conventions or provisions that apply to hazardous waste mixtures; treatment, storage, and disposal residues; and contaminated media and debris. These provisions are known as the mixture rule, the derived-from rule, and the contained-in policy.

RCRA and AEA jointly regulate mixed waste, or waste that is radioactive, and listed or characteristic. EPA provided a conditional exemption for LLMW storage, treatment, transportation, and disposal of mixed wastes.

REGULATIONS GOVERNING HAZARDOUS WASTE GENERATORS

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OVERVIEW

Under RCRA, hazardous waste generators are the first link in the cradle-to-grave hazardous waste management system. All generators must determine if their waste is hazardous and must oversee the ultimate fate of the waste. RCRA Subtitle C requires generators to ensure and fully document that the hazardous waste they produce is properly identified, managed, and treated prior to recycling or disposal. The regulations applicable to generators of hazardous waste are located in 40 CFR Part 261 and Part 262. (Generators may also be subject to land disposal restrictions (LDR) requirements as discussed in Chapter III, Land Disposal Restrictions). The degree of regulation to which each generator is subject depends to a large extent on how much waste each generator produces every calendar month. This chapter summarizes who is considered a generator and which standards apply based on monthly waste generation rates.



A user-friendly reference document containing a collection of written materials about specific issues related to hazardous waste generators can be found at www.epa.gov/epawaste/hazard/downloads/tool.pdf.

WHO ARE THE REGULATED GENERATORS?

The Subtitle C regulations broadly define the term **generator** to include any person, by site, who:

- First creates or produces a hazardous waste (e.g., from an industrial process)

  or

- First brings a hazardous waste into the RCRA Subtitle C system (e.g., imports a hazardous waste into the United States).

Because generators are the first step in the RCRA Subtitle C system, it is important that they properly classify and identify their waste to ensure proper handling later in the hazardous waste management process. As a result, generators of waste must make the following determinations:

- Is the waste a solid waste?
- Is the waste excluded?
- Is the waste a listed hazardous waste?
- Is the waste a characteristic hazardous waste?

Hazardous waste generators may include various types of facilities and businesses ranging from large manufacturing operations, universities, and hospitals to small businesses, such as dry cleaners and auto body repair shops, and laboratories. Because these different types of facilities generate different quantities of wastes resulting in varying degrees of environmental risk, RCRA regulates generators based on the amount of waste that they generate in a calendar month. As a result, there are three categories of hazardous waste generators:

- Large quantity generators (LQGs)
- Small quantity generators (SQGs)
- Conditionally exempt small quantity generators (CESQGs).

■ Large Quantity Generators

Early in the development of the RCRA program in 1980, EPA recognized that a relatively small number of large scale hazardous waste management facilities generated the majority of the nation's hazardous waste. In order to address the facilities that posed the greatest threat to human health and the environment, EPA focused on those generators that produced the greatest volumes of hazardous waste by establishing standards for large quantity generators.

Large quantity generators are defined as those facilities that generate:

- 1,000 kg or more of hazardous waste per calendar month (approximately 2,200 lbs)

  or

- 1 kg or more of acutely hazardous waste per calendar month (approximately 2.2 lbs).

As of 2011, the Agency estimated the LQG universe to be approximately 14,000 facilities.

■ Small Quantity Generators

The LQG regulations focused on generators whose volume of waste posed the greatest threat to human health and the environment. All other generators that produced less than 1,000 kg of hazardous waste per month (or less than 1 kg of acutely hazardous waste per month) were initially exempted from the RCRA generator requirements.



Because of the concern that such exempt hazardous waste could cause environmental harm, Congress (through the Hazardous and Solid Waste Amendments (HSWA)) required that EPA also regulate those facilities who produce more than

100 kg of hazardous waste but less than 1,000 kg per month. SQGs are defined as those facilities that:

- Generate greater than 100 kg (approximately 220 lbs) and less than 1,000 kg of hazardous waste per calendar month

  and

- Accumulate on-site 6,000 kg or less (approximately13,200 lbs) of hazardous waste at any time.

In 2011, The Agency estimated the SQG universe to be about 75,000 facilities .

■ Conditionally Exempt Small Quantity Generators

Until HSWA, facilities generating waste below the 100-kg cut-off point were exempt from RCRA regulatory requirements. HSWA resulted in a third category of generators, **conditionally exempt small quantity generators** (CESQGs). These generators are defined as those facilities that produce:

- 100 kg or less of hazardous waste per calendar month

  or

- 1 kg or less of acutely hazardous waste per calendar month.

Beyond the monthly generation limits, the CESQG requirements additionally limit the facility's total hazardous waste accumulation quantities to less than 1,000 kg of hazardous waste, 1 kg or less of acute hazardous waste, or 100 kg or less of any residue from the cleanup of a spill of acute hazardous waste at any time.

The Agency currently estimates the CESQG universe to be between 293,000 and 470,000 facilities.

■ Episodic Generation

Because a generator's category is determined on a monthly basis, it is possible that a generator's categorycan change from one month to the next, depending on the quantity of hazardous waste generated in a particular month. This is referred to as **episodic generation**. If a generator's status does in fact change, the generator is required to comply with the respective regulatory requirements for that class of generators for the waste generated in that particular month.

■ State Regulations

State classification of generator categories may be different from those outlined above. Some states regulate all generators of hazardous waste (i.e., there is no exempt category), while other states classify generators by waste type rather than by generated volume. Therefore, it is imperative that generators contact their respective state agency to determine if state generator regulations differ from federal requirements.

LARGE AND SMALL QUANTITY GENERATOR REGULATORY REQUIREMENTS

LQGs and SQGs are subject to regulations contained in 40 CFR Part 262 that require each generator to:

- Identify whether their solid waste is a hazardous waste, and if so, count the quantity of hazardous waste generated in the calendar month (See 40 CFR 261.5 (c) and (d)) to determine its generator category
- Obtain an EPA ID number
- Comply with accumulation and storage requirements at 40 CFR 262.34 (including requirements for training and emergency arrangements)
- Prepare the hazardous waste for transportation
- Track the shipment and receipt of such waste
- Meet recordkeeping and reporting requirements.

LQGs and SQGs may also be subject to LDR requirements.



Because SQGs produce a smaller portion of the nation's hazardous waste, Congress was concerned that full regulation might be economically

burdensome and inappropriate. Consequently, Congress authorized EPA to reduce the regulatory requirements applicable to SQGs provided that such requirements were still protective of human health and the environment. This chapter fully discusses these regulatory requirements and notes the differences between LQG and SQG regulatory provisions.

■ Waste Identification and Counting

In order to determine which generator standards a facility must comply with, generators are required to identify each waste that they generate and determine all applicable listings and characteristics. After determining which wastes are hazardous, each month, generators are responsible for totaling (or **counting**) the weight of all hazardous wastes generated in that month in order to determine if they will be regulated as an LQG, SQG, or CESQG for that particular month.

■ EPA Identification Numbers

One way that EPA monitors and tracks generators is by assigning each LQG and SQG a unique **EPA Identification (ID) number**. If you generate, treat, store, dispose, transport, or offer for transportation hazardous waste, you must have an ID number. Furthermore, the generator is forbidden from offering hazardous waste to any transporter or treatment, storage, and disposal facility (TSDF) that does not also have an EPA ID number. ID numbers are issued to each generator for each individual site or facility property where hazardous waste is generated. In most cases, generators request EPA ID numbers from the state implementing agency. Some states use the federal application form (EPA Form 8700-12) while other states use their own state forms.

Additional information regarding EPA ID numbers, including the forms and instructions can be found at www.epa.gov/epawaste/inforesources/data/form8700/forms.htm.

■ Accumulation of Waste

LQGs and SQGs are also subject to facility waste management standards. An LQG may accumulate hazardous waste on site for 90 days or less without being subject to RCRA permitting requirements provided they comply with all management specified standards. Under temporary, unforeseen, and uncontrollable circumstances, this 90-day period may be extended for up to 30 days by the state or EPA on a case-by-case basis. LQGs storing wastewater treatment sludges from electroplating operations (F006) may store that waste for 180 or 270 days if the waste is to be recycled.

LQGs must comply with the following requirements:

- Proper Management—The waste is properly accumulated in containers, tanks, drip pads, or containment buildings. Hazardous waste containers must be kept closed and marked with the date on which hazardous waste accumulation began. Tanks and containers are required to be marked with the words "Hazardous Waste." The generator must ensure and document that waste is shipped off site within the allowable 90-day period.
- Preparedness and Prevention—LQGs are required to have an emergency coordinator, coordinate with local emergency response authorities, and to test and maintain emergency equipment.
- Emergency Plan—LQGs are required to have formal written contingency plans and emergency procedures in the event of a spill or release.
- Personnel Training—Facility personnel must be trained in the proper handling of hazardous waste through an established training program.

Considering the lesser risks posed by the generation of smaller quantities of hazardous waste, SQGs are subject to less extensive facility waste management provisions. An SQG may accumulate hazardous waste on site for 180 days or less without being subject to RCRA permitting requirements provided they comply with all specified management standards. SQGs transporting hazardous waste for off-site treatment, storage, or disposal over distances greater than 200 miles may accumulate waste for up to 270 days. SQGs must comply with the following requirements:

- Proper Management—The waste is properly accumulated in either tanks or containers marked

with the words "Hazardous Waste." Containers must also be kept closed and marked with the date on which accumulation began.

- Emergency Plan—The SQG requirements include specified emergency responses; however, SQGs are not required to have written contingency plans. They are required to ensure that an emergency coordinator is on the premises, or on-call at all times, and have basic facility safety information readily accessible.
- Personnel Training—SQGs are not required to have an established training program but must ensure that employees handling hazardous waste are familiar with proper handling and emergency procedures.

■ Preparation for Transport Regulations

Pre-transport regulations are designed to ensure safe transportation of hazardous waste from the point of origin to the ultimate disposal site. In developing hazardous waste pre-transport regulations, EPA adopted the Department of Transportation's (DOT) regulations for packaging, labeling, marking, and placarding. These DOT regulations can be found at 49 CFR Parts 172, 173, 178, and 179. DOT regulations require:

- Proper packaging to prevent leakage of hazardous waste during both normal transport conditions and potentially dangerous situations (e.g., if a drum falls off of a truck).
- Labeling, marking, and placarding of the packaged waste to identify the characteristics and dangers associated with its transport.

These pre-transport regulations only apply to generators shipping waste off site for treatment, storage, or disposal. Transportation on site is not subject to these pre-transport requirements.

■ The Manifest

As previously discussed, the Subtitle C program is designed to manage hazardous waste from cradle to grave. The Uniform Hazardous Waste Manifest (*EPA Form 8700-22*) plays a crucial part in this management system. (A sample of the manifest can be found in Appendix A.) The **manifest** allows all parties involved in hazardous waste management (e.g., generators, transporters, TSDFs, EPA, state agencies) to track the movement of hazardous waste from the generator's site to the site where the waste will be treated, stored, or disposed. A RCRA manifest contains the following federally required information:

- Name, address, and EPA ID number of the hazardous waste generator, transporter(s), and designated facility
- DOT description of the waste's hazards
- Quantities of the wastes transported and container type.

Each manifest also contains a certification that states:

- The shipment has been accurately described and is in proper condition for transport.
- The generator has a waste minimization program in place at its facility to reduce the volume and toxicity of hazardous waste to the degree economically practicable, as determined by the generator.
- The treatment, storage, or disposal method chosen by the generator is the most practicable method currently available that minimizes the risk to human health and the environment.

Each time a waste is transferred (e.g., from a transporter to the **designated facility** or from a transporter to another transporter), the manifest must be signed to acknowledge receipt of the waste. A copy of the manifest is retained by each individual in the transportation chain. Once the waste is delivered to the designated facility, the owner and operator of that facility must sign and return a copy of the manifest to the generator. This system ensures that the generator has documentation that the hazardous waste has arrived at its ultimate destination. To further ensure the safe transport of hazardous waste, a generator may not offer waste for transport unless that transporter has an EPA ID number.

In March 2005, EPA finalized revisions to the manifest form and regulations. EPA standardized the content and format of the current manifest form and the continuation sheet so that the same form could be used by waste handlers nationwide. EPA also improved tracking procedures for hazardous waste shipments that destination facilities (i.e., TSDFs)

reject, wastes consisting of residues from non-empty hazardous waste containers, and wastes entering or leaving the United States. Finally, EPA established a new acquisition process for obtaining the new manifest form. Waste handlers may obtain new forms from any source that has registered with EPA to print and distribute the form.

Currently, the Agency is in the process of initiating the development of an electronic manifest system (e-manifest) to allow generators, transporters, TSDFs to document and track waste shipments electronically. This system will not be ready for a few more years.

■ Recordkeeping and Reporting

The recordkeeping and reporting requirements for LQGs and SQGs provide EPA and the states with a method to track the quantities of hazardous waste generated and the movement of hazardous wastes. The generator regulations in 40 CFR Part 262 contain four primary recordkeeping and reporting requirements:

- Biennial reporting
- Information collection requests
- Exception reporting
- Three-year record retention.

Biennial Reporting

The Office of Resource Conservation and Recovery (ORCR) relies on data to determine the best ways to develop, implement, and enforce the RCRA program, and to assess its success. EPA, in partnership with the states, biennially collects information from LQGs and TSDFs about the generation, management, and final disposition of hazardous wastes regulated under RCRA. When regulated parties provide their data, the state or EPA regional office enters the data into a computer database.

After review to ensure the quality of the data, ORCR enters it into a data system called RCRAInfo, where states and EPA can access it. EPA uses the information collected to:

- Provide EPA and the states with an understanding of hazardous waste generation and management in the United States
- Help EPA measure the quality of the environment, such as monitoring industry compliance with the regulations and evaluating waste minimization efforts taken by industry, and
- Communicate national hazardous waste information to the public and government agencies, and the regulated community, primarily through publication of the National Biennial RCRA Hazardous Waste Reports.

For more information, please go to the National Biennial RCRA Hazardous Waste Report, available at www.epa.gov/biennialreport.

Information Collection Requests

In order to collect the information that ORCR needs to develop, implement, and enforce the RCRA program, and to assess its success, ORCR requires members of the regulated community to submit data. In order for EPA to legally enforce such a requirement, the forms used to collect the data must be approved by the President's Office of Management and Budget (OMB) through the Information Collection Request (ICR) process. ICRs are usually approved for only three years, after which EPA must apply to renew them. This process, laid out in the Paperwork Reduction Act, requires an ICR before collecting the same or similar information from ten or more members of the public. An ICR:

- Describes the information to be collected
- Gives the reason the information is needed, and
- Estimates the time and cost "burden" for the public to answer the request.

Exception Reporting

The RCRA regulations ensure that the transport of hazardous waste from its point of generation to its point of treatment, storage, or disposal is documented through a manifest system. This system requires the designated facility to return a signed and dated copy of the manifest to the generator in order to acknowledge receipt of the waste. If the generator does not receive this paperwork, additional steps need to be taken in order to locate the waste. As a result, LQGs and SQGs who transport waste off site but do not receive a signed and dated copy of

the manifest from the designated facility within 45 days from the date on which the initial transporter accepted the waste, must submit an **exception report** to the EPA Regional Administrator. The exception report must describe efforts made to locate the waste and the results of those efforts.

SQGs who do not receive a signed and dated copy of the manifest from the designated facility within 60 days must send a copy of the original manifest to the EPA Regional Administrator with a note indicating that they have not received a return copy.

Record Retention

Generators must keep a copy of each biennial report and any exception reports for at least three years from the due date of the report. Generators are also required to keep copies of all manifests for three years, or until a signed and dated copy of the manifest is received from the designated facility. The manifest received from the designated facility must be kept for at least three years from the date on which the hazardous waste was accepted by the initial transporter. Finally, records of waste analyses and determinations performed by the generator must be kept for at least three years from the date the waste was last sent to an on-site or off-site TSDF. These retention periods may be extended automatically during the course of any unresolved enforcement action regarding the regulated activity, or as requested by the EPA Administrator.



CONDITIONALLY EXEMPT SMALL QUANTITY GENERATORS

While CESQGs are not subject to the requirement to obtain an EPA ID number, comply with hazardous waste accumulation and storage requirements, follow the manifest system, or meet recordkeeping and reporting requirements, they are subject to limited generator waste management standards. CESQGs may also be subject to DOT requirements. CESQGs must identify their hazardous waste, comply with the waste accumulation quantity limit requirements, and ensure waste treatment or disposal in an on-site or off-site:

- Permitted or interim status hazardous waste TSDF
- State hazardous waste facility
- State permitted, licensed, or registered solid waste disposal facility
- State MSWLF
- Recycling facility
- Universal waste facility.

QUANTITY AND TIME LIMITS

LQGs, SQGs, and CESQGs are subject to specific quantity and time limits that restrict the amount of waste that may be stored on site at any one time, and the length of such storage. For example, SQGs may not accumulate or store more than 6,000 kg of hazardous waste on site at any one time, and CESQGs may not accumulate or store 1,000 kg or more of hazardous waste on site at any one time. LQGs must move all of the waste that they generate off site within 90 days, while SQGs have 180 days to move all waste off site or up to 270 days if they must ship the waste to a TSDF located more than 200 miles. If SQGs or CESQGs exceed their respective waste accumulation or storage quantity limits, or if LQGs or SQGs exceed their respective accumulation time limits, the facility becomes a storage facility subject to all applicable requirements for TSDFs (including permitting) unless they have received an accumulation time limit extension from EPA or their state.

Several years ago, EPA promulgated less stringent regulations for generators of F006 waste in order to promote legitimate recycling of metal-bearing electroplating sludges. As a result, large quantity generators are allowed to accumulate F006 sludges up to 180 or 270 days without a permit provided they meet certain conditions.

INTERNATIONAL SHIPMENTS

Not all hazardous wastes that are managed in the United States originate in this country. Similarly, not all wastes generated in the United States are managed exclusively in this country. To ensure that such international shipments are handled in a manner that protects human health and the environment, RCRA contains management provisions for both hazardous waste imports and exports. Because such shipments are also governed by various international treaties and agreements, the RCRA regulations include provisions which implement these treaties and agreements.

■ Hazardous Waste Imports

Under RCRA, any person importing a hazardous waste into the United States from a foreign country is subject to the hazardous waste generator standards. As a result, an importer is subject to all generator requirements, including the completion of a hazardous waste manifest. Subpart F of Part 262 contains special instructions for importers completing the manifest.

In addition, any TSDFs, or interim status TSDFs, that intend to receive imported hazardous waste from a foreign source must notify the EPA Regional Administrator in writing at least four weeks prior to receiving the first shipment of hazardous waste. Any subsequent shipments of the same waste from the same foreign source do not require this notification. Once the TSDF receives import shipments of hazardous waste, the site must send a copy of each shipment's manifest to EPA within 30 days of shipment delivery, and include details on the foreign generators and imported wastes in their normal Biennial Report submission. If the import shipment is from an Organization for Economic Cooperation and Development (OECD) country (except Canada or Mexico), under 262 Subpart H, the TSDF would also have to send a copy of the OECD tracking document to EPA and to the competent authorities of all other concerned countries within three working days of shipment delivery.

■ Hazardous Waste Exports

RCRA also contains specific requirements for hazardous waste exports. For example, there are specific notification requirements for exports of hazardous wastes that prohibit the export of hazardous waste unless the exporter obtains written consent from the receiving country prior to shipment. This written consent must be attached to the manifest accompanying each waste shipment.

To export a hazardous waste, the exporter must notify the EPA Administrator 60 days prior to when the waste is scheduled to leave the United States. This notification may cover export activities extending over a 12-month period, unless information in the notification changes. If the importing country agrees to accept the hazardous waste, EPA will send an **Acknowledgment of Consent** to the exporter, who may then export the waste to the accepting country.

Subpart E of Part 262 contains the detailed export requirements for hazardous waste shipments that would not be governed by the OECD multilateral agreement (as discussed later in this chapter). Subpart H of Part 262 contains the export requirements for shipments destined for an OECD country, with the exception of Canada and Mexico.

■ International Treaties

Two international treaties may affect U.S. hazardous waste import and export practices. They are the Basel Convention and the OECD Council Decision.

Basel Convention

The **Basel Convention** establishes standards for the transboundary movement of hazardons waste, solid waste, and municipal incinerator ash, including notice to and written confirmation from the receiving country prior to export. As of July 2011, 176 countries were party to the Convention. Although the United States is not currently a party to the Basel Convention, the Convention still affects U.S. importers and exporters in the following manner. Parties to the Basel Convention cannot trade Basel-covered wastes with nonparties in the absence of a bilateral or multilateral agreement (in this case, a separate agreement between countries or groups of countries to govern the transboundary movement of waste). As a result, U.S. businesses, as a practical matter, can only import such wastes

from and export such wastes to those Basel countries with which the U.S. government has negotiated a separate waste trade agreement. Those countries with which the United States has entered into such bilateral agreements for import and export include Canada and Mexico. Those countries with which the United States has entered into a bilateral agreement for import include Malaysia, Costa Rica, and the Philippines.

Organization for Economic Cooperation and Development Council Decision

The **OECD Council Decision** is another multilateral agreement that establishes procedural and substantive controls for the import and export of hazardous waste recyclables between OECD member nations. The agreement is intended to ease the trade of such recyclables and minimize the possibility that such wastes will be abandoned or handled illegally. As of 2006, there were 30 member countries in the OECD. Since the United States is a member of OECD and is a party to the Decision, U.S. businesses can trade recyclables with other member OECD nations (including those that are also party to the Basel Convention). However, transboundary movement between the United States and the countries of Canada, Mexico, Costa Rica, Malaysia, and the Philippines is still governed by each individual bilateral agreement and not by the OECD Decision.

In May 2002, OECD published a decision that made revisions to the controls of transboundary movements of waste destined for recovery operations. Because OECD council decisions are legally binding for member countries, this decision has to be implemented in all member countries through the enactment of national legislation. As a result, in January 2010, EPA made corresponding changes to the regulations in 40 CFR Part 262, Subpart H, such as:

- Requiring U.S. recovery facilities to submit a certificate after recovery of the waste has been completed,
- Adding provisions to ensure that hazardous wastes are returned to the country of export in a more timely and documented manner when it is necessary to do so, and
- Adding new procedures for imported hazardous wastes that are initially managed at U.S. accumulation and transfer facilities to better track and document that subsequent recovery by a separate recycling facility is completed in an environmentally sound manner.

FARMER EXCLUSION

Although a farmer may be a generator of hazardous waste, waste pesticides disposed of on a farmer's own property in compliance with specified waste management requirements, including the disposal instructions on the pesticide label, are not subject to the generator requirements. This exclusion is intended to prevent the double regulation of farmers under both RCRA and the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA).

ACADEMIC LABORATORIES ALTERNATIVE REQUIREMENTS

In December 2008, EPA established alternative standards for the management of hazardous waste in laboratories owned by **eligible academic entities** (the Academic Labs Rule). The requirements in 40 CFR Part 262, Subpart K offer an alternative to the requirements for satellite accumulation areas in 40 CFR §262.34(c) and are tailored to the specific circumstances of teaching and research laboratories, including the high number of individual wastes, the variability in such wastes, the transient nature of those generating the wastes (e.g., students), and the multiple points of generation.

ACADEMIC LABORATORIES ALTERNATIVE REQUIREMENTS

The Academic Labs Rule is considered to be neither more nor less stringent than the current hazardous waste regulations. Therefore, Subpart K is only effective automatically in states that do not have final authorization for the implementation of RCRA (e.g., Iowa and Alaska). Other states are encouraged by EPA, but not required, to adopt the rule. In addition, states may adopt only portions of the rule or may have similar rules in place.

SUMMARY

Hazardous waste generators regulated under RCRA fall into three categories, based on the amount of hazardous waste generated per calendar month:

- LQGs
- SQGs
- CESQGs.

LQGs and SQGs must:

- Identify and count waste
- Obtain an EPA ID number
- Comply with accumulation and storage requirements (including requirements for training and emergency arrangements)
- Prepare the waste for transportation
- Track the shipment and receipt of such waste
- Meet recordkeeping and reporting requirements.

LQGs and SQGs may also be subject to LDRrequirements.

CESQGs are not subject to most of the generator requirements applicable to LQGs and SQGs, but they must identify their hazardous waste, comply with waste accumulation and storage quantity limit requirements, and ensure waste treatment or disposal in an on-site or off-site:

- Permitted or interim status hazardous waste TSDF
- State hazardous waste facility
- State permitted, licensed, or registered solid waste disposal facility
- State municipal solid waste landfill
- Recycling facility
- Universal waste facility.

Any person importing hazardous waste into the United States from a foreign country is subject to hazardous waste generator standards. RCRA also contains specific requirements for hazardous waste exports. Importers and exporters must also comply with the provisions of international trade treaties, such as the Basel Convention and the OECD Council Decision.

Because farmers disposing of certain pesticide wastes on their own land are subject to regulation under both RCRA and FIFRA, RCRA specifically excludes such farmers from the generator requirements. In addition, EPA established alternative standards for eligible academic entities that are tailored to the specific circumstances of teaching and research laboratories,

ADDITIONAL RESOURCES

Additional information about hazardous waste generators can be found at www.epa.gov/epawaste/hazard/generation.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

OFFICE OF
SOLID WASTE AND
EMERGENCY RESPONSE

MAY 14 2013

Subject: Checklist to Assist in Evaluating Whether Commercial Chemical Products Are Solid and Hazardous Waste under the Resource Conservation and Recovery Act

From: Betsy Devlin, Director
Materials Recovery and Waste Management Division

To: RCRA Division Directors, Regions 1–10
RCRA Enforcement Managers, Regions 1–10
Association of States and Territorial Solid Waste Management Officials (ASTSWMO)

Attached is a revised memorandum supporting the Commercial Chemical Product Checklist. This revised memorandum includes Figures 1-4 that were inadvertently excluded, and corrects the references associated with speculative accumulation.

If you have any questions, please contact Jim O'Leary of my staff at (703) 308-8827 or oleary.jim@epa.gov.



[redacted]

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

APR 23 2013

OFFICE OF
SOLID WASTE AND
EMERGENCY RESPONSE

Subject: Checklist to Assist in Evaluating Whether Commercial Chemical Products are Solid and Hazardous Waste under the Resource Conservation and Recovery Act

From: Suzanne Rudzinski, Director
Office of Resource Conservation and Recovery

To: RCRA Division Directors, Regions 1–10
RCRA Enforcement Managers, Regions 1–10
Association of States and Territorial Solid Waste Management Officials (ASTSWMO)

This memorandum provides EPA regions and states a checklist designed to assist in evaluating the regulatory status under the Resource Conservation and Recovery Act (RCRA) hazardous waste management regulations of materials that would, under usual circumstances, be considered products. Under the RCRA regulations these materials are termed Commercial Chemical Products (CCP). The checklist is included as Attachment A of this memorandum.[1]

We developed this checklist in response to requests for assistance in evaluating the regulatory status of CCPs from regional and state regulators and from the regulated community. One common situation in which this question arises is during a facility inspection. As an example, an inspector who observes a material being stored on-site may question facility representatives about the regulatory status of the material. If the facility claims that the material is a product and not a solid or hazardous waste, yet the observed management of the material or other information suggests otherwise, the inspector should gather additional information to support a regulatory status evaluation. The attached checklist will assist in gathering the appropriate supporting information and in making a regulatory status evaluation for CCPs.

Abandoned CCPs can and have caused environmental damages through leaks, spills, volatilization, fires, and explosions. Such damages and the associated clean up costs can be significant. To avoid such situations, facility owners or operators should be aware that abandoned CCPs may be solid and hazardous waste, and if so should be managed under the hazardous waste regulations. These regulations are designed to ensure that hazardous waste is managed in ways that are protective of human health and the environment. Figures 1–4, found at the end of this memorandum, provide photographs of examples encountered during inspections that suggest abandonment of CCPs.

[1] Generators may also want to use the checklist to evaluate the regulatory status of their own CCPs.

Applicable Regulations

EPA's authority under Subtitle C of RCRA covers management of solid and hazardous wastes, but does not extend to management of materials that are products. Note, however, that there may be regulations applicable to products under other environmental regulations, such as the regulation of toxic substances in products under the Toxic Substances Control Act (TSCA), or under programs managed by other federal agencies, such as the Occupational Safety and Health Administration (OSHA) and the Food and Drug Administration (FDA).

In the RCRA hazardous waste management regulations the term commercial chemical product generally refers to materials that would, under usual circumstances, be considered products and not wastes, but if they are solid wastes would be hazardous because they are listed as hazardous waste or exhibit a characteristic of hazardous waste.[2]

The RCRA regulatory definition of solid waste, found in 40 CFR 261.2, prescribes what materials are solid wastes because they are discarded, and thus are potentially hazardous waste. Under 40 CFR 261.2, three provisions address situations in which a CCP may be discarded and thus a solid waste:

- 40 CFR 261.2(b) specifies that materials (including CCPs) ***are*** solid waste if they are abandoned, including being disposed of, incinerated, or when they are accumulated, stored, or treated (but not recycled) before, or in lieu of, being abandoned or otherwise being disposed.

- 40 CFR 261.2(c)(3) and Table 1 specify that CCPs ***are not*** solid waste when legitimately reclaimed.

- 40 CFR 261.2(c)(4) and Table 1 specify that CCPs ***are not*** solid waste when accumulated before legitimate recycling; i.e., speculative accumulation does not apply.[3]

Taken together, and in context, these provisions provide the regulatory structure for determining whether a CCP is a solid waste. They establish that:

- CCPs are **not** solid waste if they are:
    - Appropriately stored or managed for use,
    - Legitimately reclaimed, or
    - Appropriately stored or managed for legitimate reclamation.

[2] From the comment at the end of 40 CFR 261.33(d): The phrase "commercial chemical product or manufacturing chemical intermediate having the generic name listed in…" refers to a chemical substance which is manufactured or formulated for commercial or manufacturing use which consists of the commercially pure grade of the chemical, any technical grades of the chemical that are produced or marketed, and all formulations in which the chemical is the sole active ingredient.

[3] Speculative accumulation is defined in 40 CFR 261.1(c)(8) as accumulation before recycling. 40 CFR 261.1(c)(8) further provides specific details about how to determine whether materials are speculatively accumulated.

- CCPs **are** solid waste if they are:
    - Abandoned by being accumulated, or by being stored, or treated before, or as a means of, being disposed.

The attached checklist is designed to assist in applying this regulatory structure to specific situations and evaluating whether a particular CCP, managed in a particular way, is a solid waste.

If a CCP is a solid waste, it then must be determined if the CCP is listed as a hazardous waste in 40 CFR part 261 subpart D, or exhibits a characteristic of hazardous waste as described in 40 CFR part 261 subpart C.[4] If the CCP is a solid and hazardous waste, it must be managed in compliance with the RCRA Subtitle C hazardous waste management regulations.

In order to conduct this analysis, EPA and state inspectors have the authority to gather information when they encounter CCPs that appear abandoned or are being managed in a questionable manner. In fact, both EPA and the states have successfully enforced against facilities that falsely claimed that their abandoned materials were CCPs.

As additional background, EPA has previously discussed when CCPs are solid wastes. In the 1983 Definition of Solid Waste proposed rule, the Agency explained how the regulations address whether CCPs that could potentially be recycled are solid waste:

> If, however, a recycling market does not develop and one is not expected within a reasonable time period, or if insufficient amounts of these materials are being recycled, we would consider these commercial chemical products as being stored for discard, and thus subject to regulatory control. We are not setting any time period for determining when these commercial chemical products would become wastes. However, we do expect persons storing these materials to have appropriate documentation or information to support their claim that these materials have recycling potential and that the materials are accumulating for eventual recycling. (48 FR 14489–14490, April 4, 1983)

The preamble to the 1985 Definition of Solid Waste final rule reiterated these points, stating that these materials (e.g., commercial chemical products)

> ….are wastes when discarded or intended for discard (by means of abandonment), and are not wastes when stored for recycling. (50 FR 636, January 4, 1985)

The Importance of Checklists

Checklists have proven to be valuable tools for obtaining well-reasoned, consistent and well-documented information across different operational processes—including RCRA facility inspections.[5] In practice, checklists are designed to support good inspection practices, including

[4] See 50 FR 14219.
[5] See The Checklist Manifesto—How to Get Things Right, Atul Gawande, Metropolitan Books, Henry Holt and Company, 2009, for a discussion on the value of checklists.

facility process-based inspection techniques that incorporate valuable open-ended questioning. Checklists are not intended to be used alone, but to supplement inspection findings. Similarly, inspectors should strive to ensure that appropriate facility representatives provide the requested information and should document who provided the information and their qualifications for providing it.

The use of RCRA checklists will vary from inspector to inspector and from state to state. Some inspectors, particularly experienced inspectors, use checklists as reference materials to assist them in preparing for a facility inspection. Less experienced inspectors, however, may use checklists as guides in posing questions to facility personnel or operators. Similarly, some states mandate the use of checklists by inspectors to support their inspection results, while other states leave it to the discretion of the inspector.

Checklist Questions

The checklist found in Attachment A groups a series of questions into three sections.

The first section includes questions that focus on observations the inspector may make concerning the management of the material. Managing a CCP as a valuable commodity is a good indicator that it has not been abandoned, and thus is more likely a product rather than a waste. However, if the material is being managed in a manner that suggests it has no little or no value (e.g., the containers are crushed, corroded, dusty, leaking, incompatible, open, or overpacked), then inspectors may want to pursue their inquiry further.

The second section builds on the results of the first section and focuses on materials used by the facility in the production of its products or in support of production operations. These questions focus on whether an internal market currently exists or could exist for the material. The third section also builds on the results of the first section but questions focus on materials sold into commerce. In other words, the second and third series of questions focus on the front-end and back-end of the facility's production processes.

Even if the material in question may be poorly managed, if a market or potential market exists internally or in commerce for such material, then the material may still be a product. However, if the accumulated evidence suggests that the material is both poorly managed and no market or even a potential market exists for the material, then the material is likely an abandoned material that may be subject to regulation under RCRA.

How to Use This Checklist

This checklist is designed to assist inspectors in gathering information to help differentiate between materials that are products and materials that have been abandoned, or stored in lieu of abandonment. In cases where material mismanagement has been observed, an inspector may wish to issue a request for more information under RCRA section 3007. In other situations, the results of the inspection may lead to initiation of a case against the facility after additional field work has been completed. Since every facility is unique, inspectors will always need to take into consideration site-specific characteristics in making these determinations.

This checklist was developed with the help of experienced regional and state representatives in response to requests for assistance on this issue. We appreciate their assistance with this effort and welcome any feedback so that we can improve the checklist's usefulness.

If you have any questions, please contact Jim O'Leary, of my staff, at (703) 308-8827 or oleary.jim@epa.gov.

cc: Betsy Devlin
Charlotte Mooney
Tracy Atagi
Alan Carpien
Steve Simoes
Jon Roberts
Ed Hammerberg
Jerry Sanger

Examples of Potential Mismanagement of a Commercial Chemical Product



1. Example of materials found by inspector during facility inspection. Are these materials products or abandoned materials?



2. Example of materials found by inspector during facility inspection. Are these materials products or abandoned materials?



3, Example of materials found by inspector during facility inspection. Are these materials products or abandoned materials?



4. Example of materials found by inspector during facility inspection. Are these materials products or abandoned materials?

Attachment A

CHECKLIST: To Assist in Evaluating Whether Commercial Chemical Products are Solid and Hazardous Waste under the Resource Conservation and Recovery Act (RCRA)

Disclaimer: This checklist is a support tool provided by EPA for the convenience of the EPA Regions, states, and the regulated community. It is not a regulation, nor can it be considered a substitute for the actual regulations or for related laws and applicable court decisions. For individuals in the regulated community using this guidance tool, EPA recommends you contact your authorized state agency or EPA regional office should you have any concerns or doubts about whether your commercial chemical product is in compliance with the applicable RCRA regulations.

The purpose of this checklist is to assist EPA and state inspectors in gathering information to help them distinguish between 1) commercial chemical products (CCPs) listed under 40 CFR 261.33 (e) and (f), or CCPs that exhibit a hazardous waste characteristic; and 2) abandoned materials or materials stored in lieu of abandonment (see 40 CFR 261.2(a)(2)(i) and 261.2(b)(3)).

This checklist should only be used in cases where it is not clear to the inspector if a material is a CCP or a waste. This includes situations where the material is not being managed in a manner consistent with a facility claim that the material has value (i.e., either for use on-site or in commerce).

There is no "bright line" for how many questions or which checklist questions provide a definitive answer to the CCP vs. abandoned waste question. Instead, site specific circumstances will most likely dictate the outcome of any determination.

This checklist should be completed for each material being evaluated.

****

	Section 1: Does the facility appear to be managing the material being evaluated in a manner that suggests it is a product (as opposed to being abandoned or stored in lieu of abandonment)?	Yes	No	N/A	Comment
	Note: Where the inspector observes questionable management practices that suggest abandonment of a material (see below), take pictures to document these observed practices.				
1	Are the containers used to store the material in good condition (vs. crushed, bulging, corroded, dusty, leaking, incompatible with the contents, open, or overpacked)?				
2	Are the containers of concern stored in a manner that suggests the material has value? (For example, is the material protected from precipitation, locked-up when the facility is not operating, or stored in a fenced/secure area?)				
3	Does the management of the containers appear to preserve the material's integrity and serve to prevent the material from becoming unstable, unusable or contaminated?				
4	Do the containers have labels that identify the contents as product?				
5	Do the container labels have information, such as lot number, manufacture date, or expiration date, to help determine the age/viability of the material, particularly if a recommended expiration date has been exceeded?				
6	If a container is not labeled, can the facility support a claim that the contents is a product (e.g., provide analytical testing results to verify that the material meets specifications for use, or explain that it recently had to transfer contents to a new container due to damage to the original container and can provide record of purchase)?				
7	Does the condition of the material suggest it is a valuable product? (For example, no crystals have formed inside or outside the container, the material is not discolored, there is no phase separation evident)				
8	Does the facility manage the material as a valuable commodity by limiting access to the material and having security procedures in place to prevent unauthorized removal of the material?				

NOTES SUPPORTING OBSERVATIONS

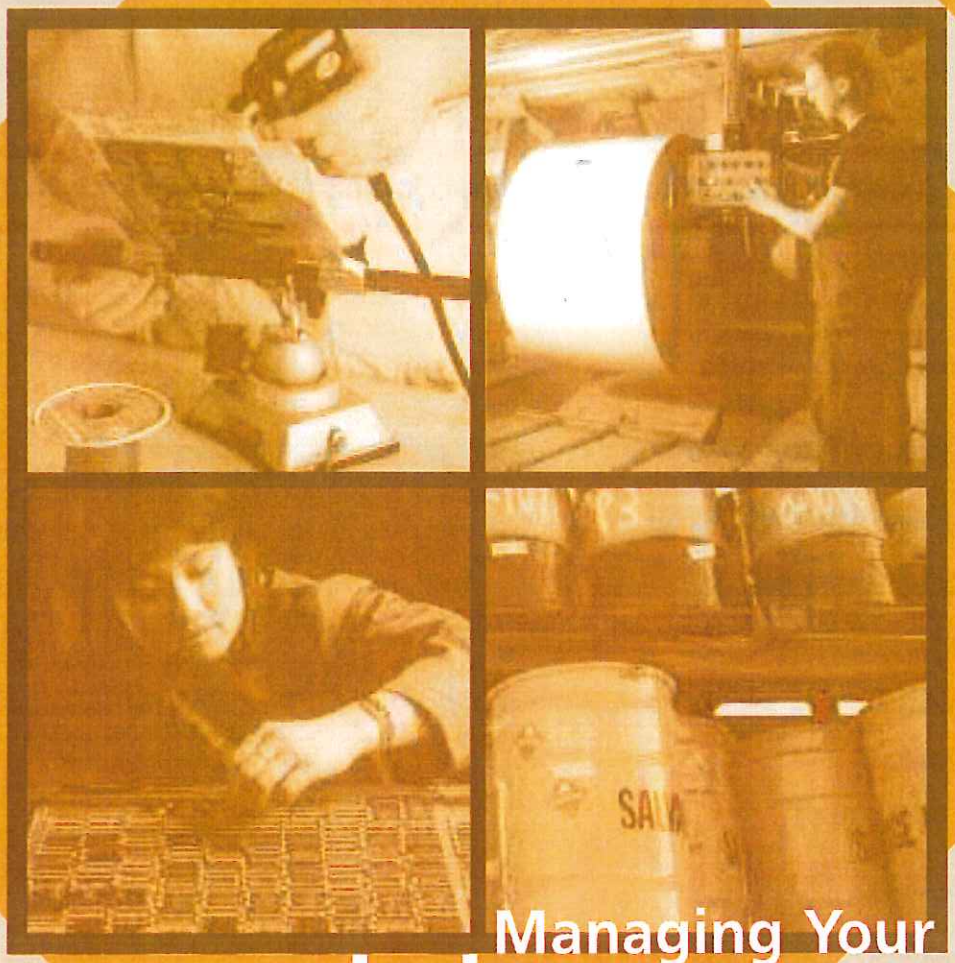
	Section 2: Does the facility appear to be using the material being evaluated in the production of its products or in support of production operations (as opposed to being abandoned or stored in lieu of abandonment)?	Yes	No	N/A	Comment
1	Can the facility describe how the material is used or show where the material is used in the facility?				
2	Do the containers storing the material in question appear to be stored in an appropriate location? - Is the material stored according to manufacturer recommendations (e.g., recommended temperatures, light)? - Are the containers accessible? - Are the materials being stored in the same location as other similar product materials?				
3	Do product specifications exist for the material or process in which it is to be used (e.g., minimum concentration of an active ingredient, maximum concentrations of contaminants, or dates beyond which the material should not be used)?				
4	Is there a process in place for the facility to compare the properties of the material in question to specifications that must be met in order for the material to be used for the claimed purpose, or is documentation available to support a facility claim that the material meets such specifications?				
5	Does it appear that the facility has purchased new material that will be used for the same purpose as the material in question? If yes, explain in the Notes section below.				
6	Are records available to demonstrate that the facility has NOT written off the material as a loss (indicating that the facility still believes that the material has a use)?				

NOTES SUPPORTING OBSERVATIONS

Section 3: Does the facility appear to be selling into commerce the material being evaluated (as opposed to being abandoned or stored in lieu of abandonment)?		Yes	No	N/A	Comment
1	Does the facility have "active" customers or a market for the material?				
2	If yes, can the facility provide a list of such customers and document recent shipments of the material for subsequent distribution in commerce, or provide copies of contracts from past or future sales? **Note:** The inspector may want to obtain contact information for the receiving facility or facilities (e.g., distributors, customers).				
3	Can the facility identify any competitors for the sale of the material to support a claim that there is an existing or potential market for the material?				
4	Can the facility provide a list of inactive or past customers that purchased the material?				
5	Can the facility provide any information about a future market for the material?				
6	Is a Material Safety Data Sheet (MSDS) or SDS under OSHA's new Globally Harmonized System available for the material (supporting a claim that the material has been in, or will enter, commerce)?				
7	Does the facility have a system for accepting/managing returned or off-specification products it produced and utilizing that material to produce a new product? If so, is this system documented?				
8	Has the material been recalled or returned from a customer? If so, can the facility explain how it intends to use the material? Is there a market for the returned material?				

Bottom Line:
Overall, does the facility appear to be managing the material in question as a valuable commodity; i.e., in a manner that preserves the material's integrity and does not cause it to become unusable? If not, explain why not and provide supporting comments/observations below to support a conclusion that the material is being abandoned, or stored in a manner that suggests abandonment.

NOTES SUPPORTING OBSERVATIONS



Managing Your Hazardous Waste

A Guide for Small Businesses

EPA
United States Environmental Protection Agency
Solid Waste and Emergency Response (5305W)
EPA530-K-01-005
December 2001
www.epa.gov/osw

EXHIBIT
Item H 000377
3

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INTRODUCTION

Does your business generate hazardous waste? Many small businesses do. If you need help understanding which federal hazardous waste management regulations apply to your business, this handbook is for you. It has been prepared by the U.S. Environmental Protection Agency (EPA) to help small-business owners and operators understand how best to comply with federal hazardous waste management regulations.

This handbook provides an overview of the regulations to give you a basic understanding of your responsibilities. It should not be used as a substitute for the actual requirements. All of the federal hazardous waste regulations are located in Title 40 of the Code of Federal Regulations (CFR), Parts 260 to 299 (www.epa.gov/epacfr40).

EPA defines three categories of hazardous waste generators based upon the quantity of hazardous waste they generate per month:

(1) Conditionally exempt small quantity generators (CESQGs), which generate less than 220 lbs (100 kg) per month.

(2) Small quantity generators (SQGs), which generate between 220 lbs (100 kg) and 2,200 lbs (1,000 kg) per month.

(3) Large quantity generators (LQGs), which generate more than 2,200 lbs (1,000 kg) per month.

Each category of generator must comply with the hazardous waste rules specific to that category. This handbook is intended primarily for businesses that generate a small quantity of hazardous waste (SQGs and CESQGs) to help them learn about regulations that apply to them.

This handbook explains only the *federal* requirements for hazardous waste management. Many states have their own hazardous waste regulations based on the federal hazardous waste regulations. In some of these states, the requirements are the same as the federal standards and definitions. Other states, however, have developed more stringent requirements than the federal program. If this is the case in your state, you must comply with the state regulations. To become familiar with your state's requirements, consult your state hazardous waste agency. For the address or phone number for your state agency, contact the RCRA Call Center at 800 424-9346 or TDD 800 553-7672.

TIP

You can look up unfamiliar words, phrases, or acronyms in the list of definitions found on page 26.

FOR MORE INFORMATION



If you have questions about any part of this book, or the federal hazardous waste regulations, contact the RCRA Call Center at 703 412-9810 or TDD 703 412-3323 in the Washington, DC, area or at 800 424-9346 or TDD 800 533-7672 from other locations, or <www.epa.gov/epaoswer/hotline>.

The Call Center provides free technical assistance. Any information you share will not be used for any other purpose.

DECIDING WHETHER HAZARDOUS WASTE REGULATIONS APPLY TO YOU

Federal hazardous waste management regulations apply to most businesses that generate hazardous waste. To determine if these regulations apply to your business, you must first determine if you even generate hazardous waste.

Defining Hazardous Waste

A waste is any solid, liquid, or contained gaseous material that is discarded by being disposed of, burned or incinerated, or recycled. (There are some exceptions for recycled materials.) It can be the by-product of a manufacturing process or simply a commercial product that you use in your business—such as a cleaning fluid or battery acid—and that is being disposed of. Even materials that are recyclable or can be reused in some way (such as burning solvents for fuel) might be considered waste.

Hazardous waste can be one of two types:

- **Listed waste.** Your waste is considered hazardous if it appears on one of four lists published in the Code of Federal Regulations (40 CFR Part 261). Currently, more than 500 wastes are listed. Wastes are listed as hazardous because they are known to be harmful to human health and the environment when not managed properly.

  Even when managed properly, some listed wastes are so dangerous that they are called **acutely hazardous wastes.** Examples of acutely hazardous wastes include wastes generated from some pesticides and that can be fatal to humans even in low doses.

- **Characteristic wastes.** If your waste does not appear on one of the hazardous waste lists, it still might be considered hazardous if it demonstrates one or more of the following characteristics:

  - It catches fire under certain conditions. This is known as an **ignitable** waste. Examples are paints and certain degreasers and solvents.
  - It corrodes metals or has a very high or low pH. This is known as a **corrosive** waste. Examples are rust removers, acid or alkaline cleaning fluids, and battery acid.
  - It is unstable and explodes or produces toxic fumes, gases, and vapors when mixed with water or under other conditions such as heat or pressure. This is known as a **reactive** waste. Examples are certain cyanides or sulfide-bearing wastes.
  - It is harmful or fatal when ingested or absorbed, or it leaches toxic chemicals into the soil or ground water when disposed of on land. This is known as a **toxic** waste. Examples are wastes that contain high concentrations of heavy metals, such as cadmium, lead, or mercury.

You can determine if your waste is toxic by having it tested using the Toxicity Characteristic Leaching



- Determine if you generate hazardous waste in the first place.
- Measure the amount of hazardous waste that you produce per month.
- Determine your generator category to learn the management requirements that apply to you.

TIP

One way to help determine if your waste exhibits any of the characteristics listed on page 2 is to check the Material Safety Data Sheet (MSDS) that comes with all products containing hazardous materials (www.msdsonline.com for information). In addition, your national trade association or its local chapter might be able to help you.

Procedure (TCLP), or by simply knowing that your waste is hazardous or that your processes generate hazardous waste. For more information about the TCLP and other test methods, contact the RCRA Call Center or the Methods Information Communication Exchange (MICE) at 703 676-4690 or <www.epa.gov/sw-846>.

Identifying Your Waste

To help you identify some of the waste streams common to your business, consult the table on page 4 to find a list of typical hazardous wastes generated by small businesses. Use the insert in the middle of this handbook for a more detailed listing of the EPA waste codes associated with these waste streams to determine if your waste is hazardous. Commercial chemical products that are discarded might also become hazardous waste. For a complete listing of hazardous waste codes, see 40 CFR Part 261.

If your waste is hazardous, you will need to manage it according to appropriate federal regulations.

Finding Your Generator Category

Once you know that you generate hazardous waste, you need to measure the amount of waste you produce per month. The amount of hazardous waste you generate determines your generator category.

Many hazardous wastes are liquids and are measured in gallons—not pounds. In order to measure your liquid wastes, you will need to convert from gallons to pounds. To do this, you must know the density of the liquid. A rough guide is that 30 gallons (about half of a 55-gallon drum) of waste with a density similar to water weighs about 220 pounds (100 kg); 300 gallons of a waste with a density similar to water weighs about 2,200 lbs (1,000 kg).

EPA has established three generator categories, as follows, each of which is regulated differently:

CESQGs:

Conditionally Exempt Small Quantity Generators: You are considered a CESQG if you generate less than 220 lbs (100 kg) per month of hazardous waste. You are exempt from hazardous waste management regulations provided that you comply with the basic requirements described on page 6.

If you are a CESQG and you generate no more than 2.2 lbs (1 kg) of **acutely hazardous waste** (or 220 lbs (100 kg) of acutely hazardous waste spill residues) in a calendar month, and never store more than that amount for any period of time, you may manage the acutely hazardous waste according to the CESQG requirements. If you generate or store more than 2.2 lbs (1kg) of acutely hazardous waste on site, you must manage it according to the LQG requirements (see below).

SQGs:

Small Quantity Generators: You are considered an SQG if you generate between 220 and 2,200 lbs (100 and 1,000 kg) per month of hazardous waste. SQGs must comply with EPA requirements for managing hazardous waste described in this document.

LQGs:

Large Quantity Generators: You are considered an LQG if you generate more than 2,200 lbs (1,000 kg) per month of hazardous waste. LQGs must comply with more extensive hazardous waste rules than those summarized in this handbook. See page 21 for an overview.

TYPICAL HAZARDOUS WASTE GENERATED BY SMALL BUSINESSES

TYPE OF BUSINESS	HOW GENERATED	TYPICAL WASTES	WASTE CODES
Drycleaning and Laundry Plants	Commercial drycleaning processes	Still residues from solvent distillation, spent filter cartridges, cooked powder residue, spent solvents, unused perchloroethylene	D001, D039, F002, F005, U210
Furniture/Wood Manufacturing and Refinishing	Wood cleaning and wax removal, refinishing/stripping, staining, painting, finishing, brush cleaning and spray brush cleaning	Ignitable wastes, toxic wastes, solvent wastes, paint wastes	D001, F001-F005
Construction	Paint preparation and painting, carpentry and floor work, other specialty contracting activities, heavy construction, wrecking and demolition, vehicle and equipment maintenance for construction activities	Ignitable wastes, toxic wastes, solvent wastes, paint wastes, used oil, acids/bases	D001, D002, F001-F005
Laboratories	Diagnostic and other laboratory testing	Spent solvents, unused reagents, reaction products, testing samples, contaminated materials	D001, D002, D003, F001-F005, U211
Vehicle Maintenance	Degreasing, rust removal, paint preparation, spray booth, spray guns, brush cleaning, paint removal, tank cleanout, installing lead-acid batteries, oil and fluid replacement	Acids/bases, solvents, ignitable wastes, toxic wastes, paint wastes, batteries, used oil, unused cleaning chemicals	D001, D002, D006, D007, D008, D035, F001-F005, U002, U080, U134, U154, U159, U161, U220, U228, U239
Printing and Allied Industries	Plate preparation, stencil preparation for screen printing, photoprocessing, printing, cleanup	Acids/bases, heavy metal wastes, solvents, toxic wastes, ink, unused chemicals	D002, D006, D008, D011, D019, D035, D039, D040, D043, F001-F005, U002, U019, U043, U055, U056, U069, U080, U112, U122, U154, U159, U161, U210, U211, U220, U223, U226, U228, U239, U259, U359
Equipment Repair	Degreasing, equipment cleaning, rust removal, paint preparation, painting, paint removal, spray booth, spray guns, and brush cleaning.	Acids/bases, toxic wastes, ignitable wastes, paint wastes, solvents	D001, D002, D006, D008, F001-F005
Pesticide End-Users/Application Services	Pesticide application and cleanup	Used/unused pesticides, solvent wastes, ignitable wastes, contaminated soil (from spills), contaminated rinsewater, empty containers	D001, F001-F005, U129, U136, P094, P123
Educational and Vocational Shops	Automobile engine and body repair, metalworking, graphic arts-plate preparation, woodworking	Ignitable wastes, solvent wastes, acids/bases, paint wastes	D001, D002, F001-F005
Photo Processing	Processing and developing negatives/prints, stabilization system cleaning	Acid regenerants, cleaners, ignitable wastes, silver	D001, D002, D007, D011
Leather Manufacturing	Hair removal, bating, soaking, tanning, buffing, and dyeing	Acids/bases, ignitables wastes, toxic wastes, solvent wastes, unused chemicals	D001, D002, D003, D007, D035, F001-F005, U159, U228, U220

TIP

In many cases, small businesses that fall into different generator categories at different times choose to satisfy the more stringent requirements to simplify compliance.

UNIVERSAL WASTES

The Universal Waste Rule was written to streamline environmental regulations for wastes generated by large numbers of businesses in relatively small quantities. It is designed to reduce the amount of hazardous waste disposed of in municipal solid waste, encourage the recycling and proper disposal of certain common hazardous wastes, and reduce the regulatory burden for businesses that generate these wastes.

Universal wastes are items commonly thrown into the trash by households and small businesses. Although handlers of universal wastes can meet less stringent standards for storing, transporting, and collecting these wastes, handlers must still comply with the full hazardous waste requirements for final recycling, treatment, or disposal. By providing a waste management structure that removes these wastes from municipal landfills and incinerators, this rule ensures stronger safeguards for public health and the environment.

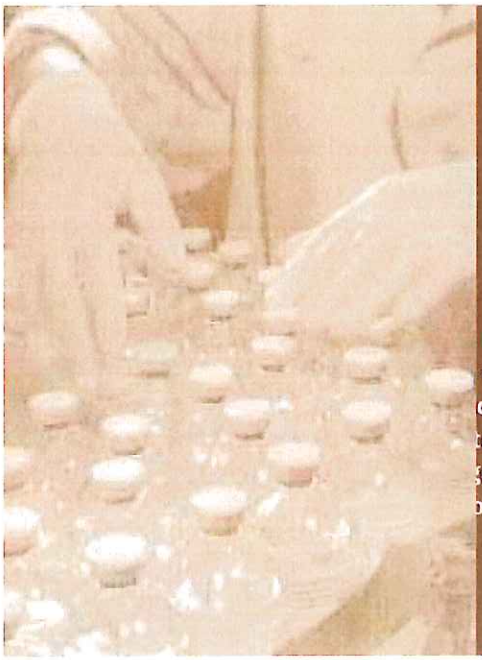
Universal wastes include:

- **Batteries**, such as nickel-cadmium (Ni-Cd) and small sealed lead-acid batteries, which are found in many common items, including electronic equipment, cell phones, portable computers, and emergency backup lighting.
- **Agricultural pesticides** that have been recalled or banned from use, are obsolete, have become damaged, or are no longer needed due to changes in cropping patterns or other factors. They often are stored for long periods of time in sheds or barns.
- **Thermostats**, which can contain as much as 3 grams of liquid mercury and are located in almost any building, including commercial, industrial, agricultural, community, and household buildings.
- **Lamps**, which typically contain mercury and sometimes lead, and are found in businesses and households. Examples include fluorescent, high-intensity discharge (HID), neon, mercury vapor, high-pressure sodium, and metal halide lamps.

Materials are continually added to the Universal Waste list; check <www.epa.gov/epaoswer/hazwaste/id/univwast.htm> for the latest information.

The Universal Waste Rule also encourages communities and businesses to establish collection programs or participate in manufacturer take-back programs required by a number of states. Many large manufacturers and trade associations are already planning national and regional collection programs for their universal waste products.

For more information, see 40 CFR Part 273.



WHAT IS YOUR GENERATOR CATEGORY?

Depending on your type of business, you might be regulated under different rules at different times. If, for example, you generate less than 220 lbs (100 kg) of hazardous waste during the month of June, you would be considered a CESQG for June, and your June waste would be subject to the hazardous waste management requirements for CESQGs. If, in July, you generate between 220 and 2,200 lbs (100 kg to 1,000 kg) of hazardous waste, your generator status would change, and you would be considered an SQG for July. Your July waste would then be subject to the management requirements for SQGs. If you mix the wastes generated during June and July, the entire mixture would be subject to the more stringent SQG standards.

WHAT DO YOU MEASURE TO DETERMINE YOUR GENERATOR CATEGORY?

DO Measure:

All quantities of listed and characteristic hazardous wastes that are:

- Accumulated on the property for any period of time before disposal or recycling. (Drycleaners, for example, must count any residue removed from machines, as well as spent cartridge filters.)
- Packaged and transported away from your business.
- Placed directly in a regulated treatment or disposal unit at your place of business.
- Generated as still bottoms or sludges and removed from product storage tanks.

DO NOT Measure:

Wastes that:

- Are specifically exempted from counting. Examples include lead-acid batteries that will be reclaimed, scrap metal that will be recycled, used oil managed under the used oil provisions of 40 CFR 279, and universal wastes (e.g., batteries, pesticides, thermostats, and lamps) managed under 40 CFR 273.
- Might be left in the bottom of containers that have been thoroughly emptied through conventional means such as pouring or pumping.
- Are left as residue in the bottom of tanks storing products, if the residue is not removed from the product tank.
- Are reclaimed continuously on site without storing prior to reclamation, such as drycleaning solvents.
- Are managed in an "elementary neutralization unit," a "totally enclosed treatment unit," or a "wastewater treatment unit," without being stored first. (See Definitions for an explanation of these types of units.)
- Are discharged directly to publicly owned treatment works (POTWs) without being stored or accumulated first. This discharge to a POTW must comply with the Clean Water Act. POTWs are public utilities, usually owned by the city, county, or state, that treat industrial and domestic sewage for disposal.
- Have already been counted once during the calendar month, and are treated on site or reclaimed in some manner, and used again.
- Are regulated under the universal waste rule or have other special requirements. The federal regulations contain special, limited requirements for managing certain commonly generated wastes. These wastes can be managed following the less burdensome requirements listed below instead of the usual hazardous waste requirements. Check with your state agency to determine if your state has similar regulations.

  Used oil—40 CFR Part 279

  Lead-acid batteries that are reclaimed—40 CFR Part 266, Subpart G

  Scrap metal that is recycled—40 CFR 261.6 (a)(3)

  Universal wastes (e.g., certain batteries, recalled and collected pesticides, and mercury-containing thermostats and lamps)—40 CFR Part 273

CESQG

OVERVIEW OF REQUIREMENTS FOR CONDITIONALLY EXEMPT SMALL QUANTITY GENERATORS

If you generate no more than 220 lbs (100 kg) of hazardous waste per month, you are a Conditionally Exempt Small Quantity Generator (CESQG). You must comply with three basic waste management requirements to remain exempt from the full hazardous waste regulations that apply to generators of larger quantities (SQGs and LQGs).

(Note: there are different quantity limits for acutely hazardous waste.)

First, you must identify all hazardous waste that you generate. Second, you may not store more than 2,200 lbs (1,000 kg) of hazardous waste on site at any time. Finally, you must ensure delivery of your hazardous waste to an off-site treatment or disposal facility that is one of the following, or, if you treat or dispose of your hazardous waste on site, your facility also most be:

- A state or federally regulated hazardous waste management treatment, storage, or disposal facility.
- A facility permitted, licensed, or registered by a state to manage municipal or industrial solid waste.
- A facility that uses, reuses, or legitimately recycles the waste (or treats the waste prior to use, reuse, or recycling).
- A universal waste handler or destination facility subject to the universal waste requirements of 40 CFR Part 273. (Universal wastes are wastes such as certain batteries, recalled and collected pesticides, or mercury-containing thermostats or lamps.)

STATE REQUIREMENTS

Some states have additional requirements for CESQGs. For example, some states require CESQGs to follow some of the SQG requirements such as obtaining an EPA identification number, or complying with storage standards. See page 14 for SQG storage requirements.

Suggestion:

It's a good idea to call the appropriate state agency to verify that the treatment, storage, and disposal facility (TSDF) you have selected has any necessary permits, etc. You also may want to see that the facility fits into one of the above categories. (It's a good idea to document such calls for your records.)



- **Identify your hazardous waste.**
- **Comply with storage quantity limits.**
- **Ensure proper treatment and disposal of your waste.**

SQG

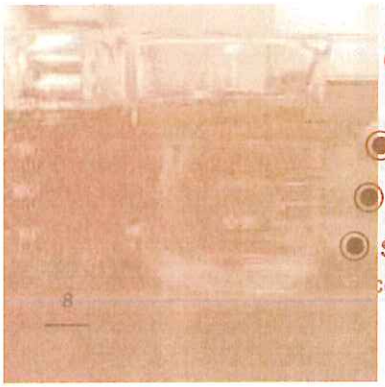
OBTAINING AN EPA IDENTIFICATION NUMBER

If your business generates between 220 lbs (100 kg) and 2,200 lbs (1,000 kg) of hazardous waste per month, you are an SQG, and you must obtain and use an EPA identification number. EPA and states use these 12-character numbers to monitor and track hazardous waste activities. You will need to use your identification number when you send waste off site to be managed.

To obtain an EPA identification number, you should:

- Call or write your state hazardous waste management agency or the hazardous waste division of your EPA Regional office and ask for a copy of EPA Form 8700-12, "Notification of Hazardous Waste Activity" (EPA Regional offices are listed on pages 24 or visit <www.epa.gov/epaoswer/hazwaste/data/form8700/forms.htm>). You will be sent a booklet that contains a form with instructions and those portions of the regulations that will help you identify your waste. A sample copy of a completed notification form is shown on pages 9-10. (Note: A few states use a form that is different from the one shown. Your state agency will send you the appropriate form to complete.)
- Fill in the form as shown in the example. To complete Item IX of the form, you will need to identify your hazardous waste by its EPA Hazardous Waste Code. A list of common hazardous wastes and their waste codes can be found on the insert in this handbook; for a complete list of waste codes, you should consult 40 CFR Part 261, or contact your state or regional EPA office or the RCRA Call Center. The form you receive from your state might contain an additional sheet that provides more space for waste codes. Complete one copy of the form for each business site where you generate or handle hazardous waste. Each site will receive its own EPA identification number. Make sure you sign the certification in Item X.
- Send the completed form to your state hazardous waste contact. This address is listed in the information booklet that you will receive with the form.

EPA records the information on the form and assigns an EPA identification number to the site identified on your form. The EPA number stays with the property when ownership changes. If you move your business, you must notify EPA or the state of your new location and submit a new form. If another business previously handled hazardous waste at this location and obtained an EPA Identification Number, you will be assigned the same number after you have notified EPA that you have moved to this location. Otherwise, EPA will assign you a new identification number.



- Call your state agency to determine if you need an EPA identification number.
- If you do, obtain a copy of EPA Form 8700-12.
- Fill in the form completely.
- Send the form to your STATE hazardous waste contact.

SQG

SAMPLE "NOTIFICATION OF REGULATED WASTE ACTIVITY" FORM

Please print or type with ELITE type (12 characters per inch) in the unshaded areas only

GSA No. 0246-EPA-OT

Please refer to Section V. Line-by-Line Instructions for Completing EPA Form 8700-12 before completing this form. The information requested here is required by law (Section 3010 of the *Resource Conservation and Recovery Act*).

Notification of Regulated Waste Activity

EPA United States Environmental Protection Agency

Date Received (For Official Use Only)

I. Installation's EPA ID Number *(Mark 'X' in the appropriate box)*

☑ A. Initial Notification ☐ B. Subsequent Notification *(Complete item C)*

C. Installation's EPA ID Number

II. Name of Installation *(Include company and specific site name)*

General Metal Processing Co

III. Location of Installation *(Physical address not P.O. Box or Route Number)*

Street: 501 Main Street

Street *(Continued)*:

City or Town: Smalltown | State: VA | Zip Code: 23000-

County Code: | County Name:

IV. Installation Mailing Address *(See instructions)*

Street or P.O. Box: 501 Main Street

City or Town: Smalltown | State: VA | Zip Code: 23000-

V. Installation Contact *(Person to be contacted regarding waste activities at site)*

Name *(Last)*: Jones | *(First)*: William

Job Title: Manager | Phone Number *(Area Code and Number)*: 804-555-1234

VI. Installation Contact Address *(See instructions)*

A. Contact Address Location ☑ Mailing ☐ | B. Street or P.O. Box: 501 Main Street

City or Town: Smalltown | State: VA | Zip Code: 23000-

VII. Ownership *(See instructions)*

A. Name of Installation's Legal Owner: Josephine Doe

Street, P.O. Box, or Route Number: 234 Broad Street

City or Town: Smalltown | State: VA | Zip Code: 23000-

Phone Number *(Area Code and Number)*: 804-555-6789 | B. Land Type: | C. Owner Type: | D. Change of Owner Indicator: Yes ☐ No ☑ | Date Changed: Month Day Year

EPA Form 8700-12 (Rev. 12/99)

SQG

SAMPLE "NOTIFICATION OF REGULATED WASTE ACTIVITY" FORM (CONTINUED)

Please print or type with ELITE type (12 characters per inch) in the unshaded areas only

Form Approved, OMB No. 2050-0028 Expires 12/31/02
GSA No. 0246-EPA-OT

ID - For Official Use Only

VIII. Type of Regulated Waste Activity *(Mark 'X' in the appropriate boxes. Refer to Instructions)*

A. Hazardous Waste Activities

1. Generator (See Instructions)
   - ☐ a. Greater than 1000kg/mo (2,200 lbs.)
   - ☒ b. 100 to 1000 kg/mo (220-2,200 lbs.)
   - ☐ c. Less than 100 kg/mo (220 lbs)
2. Transporter (Indicate Mode in boxes 1-5 below)
   - ☐ a. For own waste only
   - ☐ b. For commercial purposes

Mode of Transportation
- ☐ 1. Air
- ☐ 2. Rail
- ☐ 3. Highway
- ☐ 4. Water
- ☐ *5. Other - specify*

☐ 3. Treater, Storer, Disposer (at installation) Note: A permit is required for this activity, see instructions.

4. Exempt Boiler and/or Industrial Furnace
   - ☐ a. Smelting, Melting, and Refining Furnace Exemption
   - ☐ b. Small Quantity On-Site Burner Exemption

☐ 5. Underground Injection Control

B. Universal Waste Activity

☐ Large Quantity Handler of Universal Waste

C. Used Oil Management Activities

1. Used Oil Transporter/Transfer Facility - Indicate Type(s) of Activity(ies)
   - ☐ a. Transporter
   - ☐ b. Transfer Facility
2. Used Oil Processor/Re-refiner - Indicate Type(s) of Activity(ies)
   - ☐ a. Processor
   - ☐ b. Re-refiner

☐ 3. Off-Specification Used Oil Burner

4. Used Oil Fuel Marketer
   - ☐ a. Marketer Who Directs Shipment of Off-Specification Used Oil to Used Oil Burner
   - ☐ b. Marketer Who First Claims the Used Oil Meets the Specifications

IX. Description of Hazardous Wastes *(Use additional sheets if necessary)*

A. Listed Hazardous Wastes. *(See 40 CFR 261.31 - 33; See instructions if you need to list more than 12 waste codes.)*

1	2	3	4	5	6
F008	F011	K009			
7	**8**	**9**	**10**	**11**	**12**

B. Characteristics of Nonlisted Hazardous Wastes. *(Mark 'X' in the boxes corresponding to the characteristics of nonlisted hazardous wastes your installation handles; See 40 CFR Parts 261.20 - 261.24; See instructions if you need to list more than 4 toxicity characteristic waste codes.)*

1. Ignitable (D001)	2. Corrosive (D002)	3. Reactive (D003)	4. Toxicity Characteristic	(List specific EPA hazardous waste number(s) for the Toxicity Characteristic contaminant(s)) 1	2	3	4
X							

C. Other Wastes. *(State-regulated or other wastes requiring a handler to have an I.D. number; See instructions.)*

1	2	3	4	5	6

X. Certification

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Signature	Name and Official Title *(Type or print)*	Date Signed
Josephine Doe	Josephine Doe, owner	12-01-00

XI. Comments

Note: Mail completed form to the appropriate EPA Regional or State Office. *(See Section IV of the booklet for addresses.)*

EPA Form 8700-12 (Rev. 12/99) - 2 of 2 -

TIP

It is a good practice never to mix wastes. Mixing wastes can create an unsafe work environment and lead to complex and expensive cleanups and disposal.

SQG

MANAGING HAZARDOUS WASTE ON SITE

Most small businesses accumulate some hazardous waste on site for a short period of time and then ship it off site to a treatment, storage, or disposal facility (TSDF).

Accumulating Your Waste

Accumulating hazardous waste on site can pose a threat to human health and the environment, so you may keep it only for a short time without a permit. Before shipping the waste for disposal or recycling, you are responsible for its safe management, which includes safe storage, safe treatment, preventing accidents, and responding to emergencies in accordance with federal regulations.

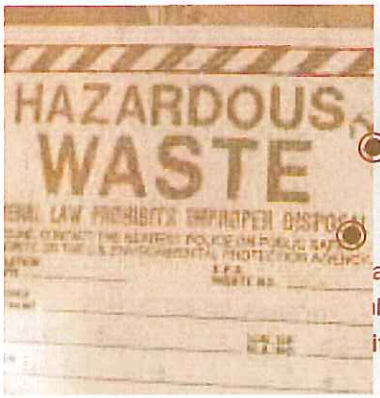
SQGs can accumulate no more than 13,228 lbs (6,000 kg) of hazardous waste on site for up to 180 days without a permit. You can accumulate this amount of waste for up to 270 days if you must transport it more than 200 miles away for recovery, treatment, or disposal. Limited extensions may be granted by the state director or the regional EPA administrator. If you exceed these limits, you are considered a TSDF and must obtain an operating permit. Wastes generated in small amounts throughout your facility may be stored in satellite accumulation areas located at or near the point of generation of the waste. The total amount of waste that may be accumulated at a satellite area is limited to 55 gallons. Once this quantity has been exceeded, you have 3 days to transfer the waste to your designated 180-day (or 270-day) storage area.

(Note: Different quantity limits apply to acutely hazardous wastes.)

SQGs must accumulate waste in tanks or containers, such as 55-gallon drums. Your storage tanks and containers must be managed according to EPA requirements summarized below:

For containers, you must:

- Label each container with the words "HAZARDOUS WASTE" and the date that the waste was generated.
- Use a container made of, or lined with, a material that is compatible with the hazardous waste to be stored. (This will prevent the waste from reacting with or corroding the container.)
- Keep all containers holding hazardous waste closed during storage, except when adding or removing waste. Do not open, handle, or store (e.g., stack) containers in a way that might rupture them, cause them to leak, or otherwise fail.
- Inspect areas where containers are stored at least weekly. Look for leaks and for deterioration caused by corrosion or other factors.
- Maintain the containers in good condition. If a container leaks, put the hazardous waste in another container, or contain it in some other way that complies with EPA regulations.
- Do not mix incompatible wastes or materials unless precautions are taken to prevent certain hazards.



- **Accumulate wastes according to limits established by EPA for SQGs.**
- **Follow the storage and handling procedures required by EPA for SQGs.**
- **Follow EPA requirements for equipment testing and maintenance, access to communications or alarms, aisle space, and emergency arrangements with local authorities.**

SQG

WASTE MINIMIZATION: THE KEY TO BETTER WASTE MANAGEMENT

The easiest and most cost-effective way of managing any waste is not to generate it in the first place. You can decrease the amount of hazardous waste your business produces by developing a few "good housekeeping" habits. Good housekeeping procedures generally save businesses money, and they prevent accidents and waste. To help reduce the amount of waste you generate, try the following practices at your business.

- **Do not mix wastes.** Do not mix nonhazardous waste with hazardous waste. Once you mix anything with listed hazardous waste, the whole batch becomes hazardous. Mixing waste can also make recycling very difficult, if not impossible. A typical example of mixing wastes would be putting nonhazardous cleaning agents in a container of used hazardous solvents.
- **Change materials, processes, or both.** Businesses can save money and increase efficiency by replacing a material or a process with another that produces less waste. For example, you could use plastic blast media for paint stripping of metal parts rather than conventional solvent stripping.
- **Recycle and reuse manufacturing materials.** Many companies routinely put useful components back into productive use rather than disposing of them. Items such as oil, solvents, acids, and metals are commonly recycled and used again. In addition, some companies have taken waste minimization actions such as using fewer solvents to do the same job, using solvents that are less toxic, or switching to a detergent solution.
- **Safely store hazardous products and containers.** You can avoid creating more hazardous waste by preventing spills or leaks. Store hazardous product and waste containers in secure areas, and inspect them frequently for leaks. When leaks or spills occur, materials used to clean them also become hazardous waste.
- **Make a good faith effort.** SQGs do not have to document their waste minimization activities or create a waste minimization plan. You do, however, need to certify on your manifests that you have made a good faith effort to minimize waste generation when you send your waste off site.





For tanks, you must:

- Label each tank with the words "HAZARDOUS WASTE" and the date that the waste was generated.
- Store only waste that will not cause the tank or the inner liner of the tank to rupture, leak, corrode, or fail.
- Equip tanks that have an automatic waste feed with a waste feed cutoff system, or a bypass system for use in the event of a leak or overflow.
- Inspect discharge control and monitoring equipment and the level of waste in uncovered tanks at least once each operating day. Inspect the tanks and surrounding areas for leaks or other problems (such as corrosion) at least weekly.
- Use the National Fire Protection Association's (NFPA's) buffer zone requirements for covered tanks containing ignitable or reactive wastes. These requirements specify distances considered to be safe buffer zones for various ignitable or reactive wastes. You can reach the NFPA at 617 770-3000.
- Do not mix incompatible wastes or materials unless precautions are taken to prevent certain hazards.
- Do not place ignitable or reactive wastes in tanks unless certain precautions are taken.
- Provide at least 2 feet (60 centimeters) of freeboard (space at the top of each tank) in uncovered tanks, unless the tank is equipped with a containment structure, a drainage control system, or a standby tank with adequate capacity.

Treating Your Waste to Meet the Land Disposal Restrictions (LDRs)

Most hazardous wastes may not be land disposed unless they meet "treatment standards." The Land Disposal Restrictions (LDR) program requires that the waste is treated to reduce the hazardous constituents to levels set by EPA, or that the waste is treated using a specific technology. It is your responsibility to ensure that your waste is treated to meet LDR treatment standards before it is land disposed. (See page 17 for a description of required LDR notices.) Most SQGs probably will have their designated TSDF do this treatment. If you choose to treat your waste yourself to meet LDR treatment standards, there are additional requirements including waste analysis plans, notifications, and certifications. To learn about these requirements, contact the RCRA Call Center, your state agency, or EPA regional office, and consult 40 CFR Part 268.

Preventing Accidents

Whenever you store hazardous waste on site, you must minimize the potential risks from fires, explosions, or other accidents.

SQG

All SQGs that store hazardous waste on site must be equipped with:

- An internal communications or alarm system capable of providing immediate emergency instruction (voice or signal) to all personnel.
- A device, such as a telephone (immediately available at the scene of operations) or a hand-held, two-way radio, capable of summoning emergency assistance from local police and fire departments or emergency response teams.
- Portable fire extinguishers, fire-control devices (including special extinguishing equipment, such as those using foam, inert gas, or dry chemicals), spill-control materials, and decontamination supplies.
- Water at adequate volume and pressure to supply water-hose streams, foam-producing equipment, automatic sprinklers, or water spray systems.

You must test and maintain all equipment to ensure proper operation. Allow sufficient aisle space to permit the unobstructed movement of personnel, fire protection equipment, spill-control equipment, and decontamination equipment to any area of facility operation. Attempt to secure arrangements with fire departments, police, emergency response teams, equipment suppliers, and local hospitals, as appropriate, to provide services in the event of an emergency. Ensure that personnel handling hazardous waste have immediate access to an alarm or emergency communications device.

IF YOU THINK YOU HAVE AN EMERGENCY, IMMEDIATELY CALL 911 AND THE NATIONAL RESPONSE CENTER AT 800 424-8802.

In the event of a fire, explosion, or other release of hazardous waste that could threaten human health outside the facility, or if you think that a spill has reached surface water, call the National Response Center to report the emergency. The Response Center will evaluate the situation and help you make appropriate emergency decisions. In many cases, you will find that the problem you faced was not a true emergency, but **it is better to call if you are not sure.** Serious penalties exist for failing to report emergencies.

You are not required to have a formal personnel training program, but you must ensure that employees handling hazardous waste are familiar with proper handling and emergency procedures. In addition, you must have an emergency coordinator on the premises or on-call at all times, and have basic facility safety information readily accessible.

Responding to Emergencies

Although EPA does not require SQGs to have a written contingency plan, you must be prepared for an emergency at your facility. You should also be prepared to answer a set of "what if" questions. For example: "What if there is a fire in the area where hazardous waste is stored?" or "What if I spill hazardous waste, or one of my hazardous waste containers leaks?" In case of a fire, explosion, or toxic release, having such a plan provides an organized and coordinated course of action. SQGs are required to establish basic safety guidelines and response procedures to follow in the event of an emergency.

Worksheets 1 and 2 (on page 15) can help you set up these procedures. The information on Worksheet 1 must be posted near your phone. You must ensure that employees are familiar with these procedures.

SQG

Worksheet 1 Fill in and post this information next to your telephone.

EMERGENCY RESPONSE INFORMATION

Emergency Coordinator

Name: _____

_____

Telephone: _____

_____

_____

Fire Extinguisher

Location(s): _____

_____

_____

_____

Spill-Control Materials

Location(s): _____

_____

_____

Fire Alarm (if present)

Location(s): _____

_____

_____

_____

Fire Department

Telephone: _____

Worksheet 2 Fill in and post this information next to your telephone. Make sure all employees read and are familiar with its contents.

EMERGENCY RESPONSE PROCEDURES

In the event of a spill:

Contain the flow of hazardous waste to the extent possible, and as soon as is possible, clean up the hazardous waste and any contaminated materials or soil.

In the event of a fire:

Call the fire department and, if safe, attempt to extinguish the fire using a fire extinguisher.

In the event of a fire, explosion, or other release that could threaten human health outside the facility, or if you know that the spill has reached surface water:

Call the National Response Center at its 24-hour number (800 424-8802). Provide the following information:

Our company name:

_____

_____

Our address:

_____

_____

Our U.S. EPA identification number:

_____

Date of accident _____

Time of accident _____

Type of accident (e.g., spill or fire) _____

Quantity of hazardous waste involved _____

Extent of injuries, if any _____

Estimated quantity and disposition of recovered materials, if any

_____

SQG

SHIPPING WASTE OFF SITE

When shipping waste off site, SQGs must follow certain procedures that are designed to ensure safe transport and proper management of the waste.

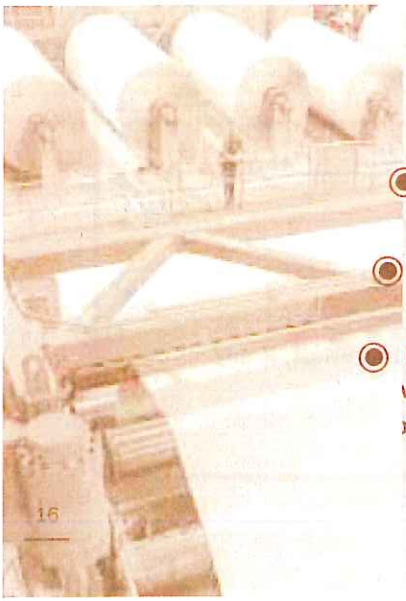
Selecting a Treatment, Storage, and Disposal Facility (TSDF)

SQGs may send their waste only to a regulated Treatment, Storage, and Disposal Facility (TSDF) or recycler. Most regulated TSDFs and recyclers will have a permit from the state or EPA. Some, however, may operate under other regulations that do not require a permit. Check with the appropriate state authorities to be sure the facility you select has any necessary permits. All TSDFs and recyclers must have EPA identification numbers.

Labeling Waste Shipments

SQGs must properly package, label, and mark all hazardous waste shipments, and placard the vehicles in which these wastes are shipped following Department of Transportation (DOT) regulations. Most small businesses use a commercial transporter to ship hazardous waste. These transporters can advise you on specific requirements for placarding, labeling, marking, and packaging; however, you remain responsible for compliance. For additional information, consult the DOT regulations (49 CFR Parts 172 and 173) or call the DOT hazardous materials information line at 202 366-4488 or 800 467-4922.

Federal regulations allow you to transport your own hazardous waste to a designated TSDF provided that you comply with DOT rules. Some states, however, do not allow this practice. Call DOT and your state hazardous waste management agency regarding applicable regulations.



- Package, label, and mark your shipment, and placard the vehicle in which your waste is shipped as specified in DOT regulations.
- Prepare a hazardous waste manifest to accompany your shipment.
- Include a notice and certification with the first waste shipment.
- Ensure the proper management of any hazardous waste you ship (even when it is no longer in your possession).

Preparing Hazardous Waste Manifests

The Hazardous Waste Manifest System is a set of forms, reports, and procedures designed to seamlessly track hazardous waste from the time it leaves the generator until it reaches the off-site waste management facility that will store, treat, or dispose of the hazardous waste. The system allows the waste generator to verify that its waste has been properly delivered and that no waste has been lost or unaccounted for in the process.

The key component of this system is the Uniform Hazardous Waste Manifest, which is a multipart form prepared by most generators that transport hazardous waste for off-site treatment, recycling, storage, or disposal. The manifest is required by both the DOT and EPA. When completed, it contains information on the type and quantity of the waste being transported, instructions for handling the waste, and signatures of all parties involved in the off-site treatments, recycling, storage, or disposal process. Each party also must retain a copy of the manifest. This process ensures critical accountability in the transportation and disposal process. Once the waste reaches its destination, the receiving facility returns a signed copy of the manifest to the generator, confirming that the waste has been received.

At press time, the Uniform Hazardous Waste Manifest system is in the process of being updated and modernized. Please check the Internet at www.epa.gov/epaoswer/hazwaste/gener/manifest/index.htm.

EPA expects to standardize the content and appearance of the current manifest form so that the same form may be used by waste handlers nationwide. Other anticipated changes include improved tracking procedures and an option to complete, send, and store the mainfest information electronically.

Land Disposal Restrictions (LDR) Reporting Requirements

Regardless of where the waste is being sent, the initial shipment of waste subject to LDRs must be sent to a receiving TSDF or recycler along with an LDR notice. You must send an additional LDR notice if your waste or receiving facility changes. This notice must provide information about your waste, such as the EPA hazardous waste code and the LDR treatment standard. The purpose of this notice is to let the TSDF know that the waste must



meet treatment standards before it is land disposed. There is no required form for this notice, but your TSDF may provide a form for you to use. A certification may also be required in specific situations. Contact the RCRA Call Center, your state agency, or EPA regional office and consult 40 CFR Part 268 for help with LDR notification and certification requirements.

Export Notification

If you choose to export your hazardous waste, you must notify EPA 60 days before the intended date of shipment to obtain written consent. EPA's "Acknowledge-ment of Consent" document must accompany the shipment at all times. For more information on how to obtain the consent to export hazardous waste, contact the RCRA Call Center at 800 424-9346.

Closure

When you close your facility, you must ensure that all hazardous waste has been removed from your hazardous waste tanks, discharge-control equipment, and discharge confinement structures. In addition, any contamination you might have caused must be cleaned up and managed under all applicable hazardous waste regulations.



SQG

MANAGING USED OIL

EPA's used oil management standards are a set of "good housekeeping" requirements that encourage used oil handlers to recycle used oil instead of disposing of it. Used oil can be collected, refined and recycled, and used again—for the same job or a completely different task.

Used oil is defined as "any oil that has been refined from crude oil or any synthetic oil that has been used and, as a result of such use, is contaminated by physical or chemical impurities." To meet EPA's definition of used oil, a substance must meet each of the following criteria:

- **Origin.** Used oil must have been refined from crude oil or made from synthetic materials. Animal and vegetable oils are excluded from EPA's definition of used oil.
- **Use.** Oils used as lubricants, hydraulic fluids, head transfer fluids, buoyants, and for other similar purposes are considered used oil. Unused oil such as bottom clean-out waste from virgin fuel oil storage tanks or virgin fuel oil recovered from a spill do not meet EPA's definition of used oil because these oils have never been used. EPA's definition also excludes products used as cleaning agents or solely for their solvent properties, as well as certain petroleum-derived products such as antifreeze and kerosene.
- **Contaminants.** To meet EPA's definition, used oil must become contaminated as a result of being used. This includes residues and contaminants generated from handling, storing, and processing used oil. Physical contaminants can include dirt, metal scrapings, or sawdust. Chemical contaminants could include solvents, halogens, or saltwater.

The following types of businesses handle used oil:

- **Generators** are businesses that handle used oil through commercial or industrial operations or from the maintenance of vehicles and equipment. Examples include car repair shops, service stations, government motor pools, grocery stores, metalworking industries, and boat marinas. Farmers who produce less than an average of 25 gallons of used oil per month are excluded from generator status. Individuals who generate used oil through the maintenance of their personal vehicles and equipment are

SELECTING A TRANSPORTER OR TSDF/RECYCLER

It is important to choose your transporter and your TSDF carefully because you remain responsible for the proper management of your hazardous waste even after it has left your site.

For help in choosing a transporter or TSDF, check with the following sources:

- References from business colleagues who have used a specific hazardous waste transporter or TSDF.
- Trade associations for your industry that might keep a file on companies that handle hazardous waste.
- The Better Business Bureau or Chamber of Commerce in the TSDF's area, which might have a record of any complaints registered against a transporter or a facility.
- Your state hazardous waste management agency or EPA regional office, which can tell you whether the transporter or TSDF has an EPA identification number and a permit, if required. Facility information, including types and quantities of waste managed and violations assessed, can be accessed via the Envirofacts Internet site at <www.epa.gov/enviro>.

not subject to regulation under the used oil management standards.

- **Collection centers and aggregation points** are facilities that accept small amounts of used oil and store it until enough is collected to ship it elsewhere for recycling.
- **Transporters** are companies that pick up used oil from all sources and deliver it to re-refiners, processors, or burners. **Transfer facilities** are any structure or area where used oil is held for longer than 24 hours but not longer than 35 days.
- **Re-refiners and processors** are facilities that blend or remove impurities from used oil so the oil can be burned for energy recovery or reused.
- **Burners** burn used oil for energy recovery in boilers, industrial furnaces, or in hazardous waste incinerators.
- **Marketers** are handlers that either a) direct shipments of used oil to be burned as fuel in regulated devices or b) claim that certain EPA specifications are met for used oil to be burned for energy recovery in devices that are not regulated.

Although different used oil handlers have specific requirements, the following requirements are common to all types of handlers:

Storage

- Label all containers and tanks as Used Oil.
- Keep containers and tanks in good condition. Do not allow tanks to rust, leak, or deteriorate. Fix structural defects immediately.
- Never store used oil in anything other than tanks and storage containers. Used oil also can be stored in units that are permitted to store regulated hazardous waste.

Oil Leaks or Spills

- Take steps to prevent leaks and spills. Keep machinery, equipment, containers, and tanks in good working condition, and be careful when transferring used oil. Keep sorbent materials available at the site.
- If a leak or spill occurs, stop the oil from flowing at the source. If a leak can't be stopped, put the oil in another holding container or tank.
- Contain spilled oil using sorbent berms or spreading sorbent over the oil and surrounding area.
- Clean up the used oil and recycle it as you would have before it was spilled. If recycling is not possible, you must first make sure the used oil is not a hazardous waste and dispose of it appropriately. All used cleanup materials, including rags and sorbent booms, that contain used oil must also be handled according to the used oil management standards.
- Remove, repair, or replace the defective tank or container immediately.

Used oil requirements are detailed in 40 CFR Part 279. For more information, contact the Emergency Response Division's Information Hotline at 202 260-2342.



LQG

SUMMARY OF REQUIREMENTS FOR LARGE QUANTITY GENERATORS

If you are a Large Quantity Generator (LQG) (generating more than 2,200 lbs (1,000 kg) per month), you must comply with the full set of hazardous waste regulations. This table summarizes the federal LQG requirements. This is only a summary and does not include all of the LQG requirements. For more details, contact the RCRA Call Center at 800 424-9346, or TDD 800 553-7672, or see 40 CFR Part 262. Be sure to check with your state as well because certain states have additional or more stringent requirements than the federal government.

LQG Requirements	Summary
Hazardous Waste Determination (40 CFR Part 262.10) Generator Category Determination (40 CFR Part 262.10 (b) and 261.5 (b) and (c))	Identify all hazardous wastes you generate. Measure the amount of hazardous waste you generate per month to determine your generator category (e.g., LQG).
EPA Identification Numbers (40 CFR 262.12)	Obtain a copy of EPA Form 8700-12, fill out the form, and send it to the contact listed with the form. An EPA identification number will be returned to you for your location.
Prepare Hazardous Waste for Shipment Off Site (40 CFR Parts 262.30 - 262.33)	Package, label, mark, and placard wastes following Department of Transportation requirements. Ship waste using hazardous waste transporter.
The Manifest (40 CFR Parts 262.20 - 262.23, 262.42)	Ship waste to hazardous waste treatment, storage, disposal, or recycling facility. Ship hazardous waste off site using the manifest system (EPA Form 8700-22) or state equivalent.
Managing Hazardous Waste On Site (40 CFR Part 262.34)	Accumulate waste for no more than 90 days without a permit. Accumulate waste in containers, tanks, drip pads, or containment buildings. Comply with specified technical standards for each unit type.
Recordkeeping and Biennial Report (40 CFR Parts 262.40 - 262.41)	Retain specified records for 3 years. Submit biennial report by March 1 of even numbered years covering generator activities for the previous year.
Comply with Land Disposal Restrictions (40 CFR 268)	Ensure that wastes meet treatment standards prior to land disposal. Send notifications and certifications to TSDF as required. Maintain waste analysis plan if treating on site.
Export/Import Requirements (40 CFR Subparts E and F)	Follow requirements for exports and imports, including notification of intent to export and acknowledgement of consent from receiving country.
Air Emissions (40 CFR Part 265, Subpart CC)	If applicable, use various monitoring and control mechanisms to: · Control volatile organic compound (VOC) emissions from hazardous waste management activities. · Reduce organic emissions from process vents associated with certain recycling activities and equipment that is in contact with hazardous waste that has significant organic content. · Control VOCs from hazardous waste tanks, surface impoundments, and containers using fixed roofs, floating roofs, or closed-vent systems routed to control devices.
Closure (40 CFR Parts 265.111 and 265.114)	Decontaminate and remove all contaminated equipment, structures, and soil, and minimize the need for further maintenance of your site. Meet unit-specific closure standards for tanks, containment buildings, and drip pads.

WHERE TO GET MORE HELP

For further assistance in understanding the hazardous waste regulations applicable to you, contact your state hazardous waste agency. Other assistance resources include the EPA Resource Centers (including the RCRA Call Center), or your EPA regional office (page 24).

Also, see other related sections of the Code of Federal Regulations:

- Handling PCBs (40 CFR Part 761)
- Toxic Release Inventory (TRI) Reporting (40 CFR Part 372)
- Domestic Sewage Waste Disposal Reporting (40 CFR Part 403)
- Shipping Hazardous Materials (49 CFR Parts 171-180)

EPA and Other Federal Resource Centers

RCRA Call Center
U.S. Environmental Protection Agency
1200 Pennsylvania Ave, NW.
Washington, DC 20460
Phone: 800 424-9346, or TDD 800 553-7672. In Washington, DC: 703 412-9810, or TDD 703 412-3323
Web: www.epa.gov/epaoswer/hotline

Answers questions on matters related to solid waste, hazardous waste, and underground storage tanks. Also can be used to find and order EPA publications.

RCRA in Focus

RCRA in Focus is a series of short informational booklets that describes the RCRA regulations as they apply to specific industry sectors. The documents explain what RCRA is, who is regulated, and what hazardous waste is; provide a sample life cycle of a RCRA waste in each industry; include a quick reference chart of all applicable RCRA regulations and a series of waste minimization suggestions for various specific industrial processes; and provide information on other relevant environmental laws and a page of contacts and resources.

Individual issues of *RCRA in Focus* have been written for the following industries:

- Dry Cleaning (EPA530-K-99-005)
- Leather Manufacturing (EPA530-K-00-002)
- Motor Freight & Railroad Transportation (EPA530-K-00-003)
- Photo Processing (EPA530-K-99-002)
- Printing (EPA530-K-97-007)
- Vehicle Maintenance (EPA530-K-99-004)

Other issues of *RCRA in Focus* will cover:

- Wood Preserving/Wood Products
- Construction, Demolition & Renovation
- Metals Manufacturing
- Furniture Manufacturing
- Pharmaceutical Manufacturing
- Laboratories

Copies of *RCRA in Focus* can be obtained by contacting the RCRA Call Center at 800 424-9346 or TDD 800 553-7672 and requesting the document numbers listed above. You can also view the documents online at <www.epa.gov/epaoswer/hazwaste/id/infocus/index.htm>.

Small Business Ombudsman Clearinghouse/Hotline
U.S. Environmental Protection Agency
Small Business Ombudsman (1230C)
1200 Pennsylvania Ave, NW.
Washington, DC 20460
Phone: 800 368-5888 or 202 260-1211
Fax: 202 401-2302
Web: www.epa.gov/sbo

Helps private citizens, small businesses, and smaller communities with questions on all program aspects within EPA.

Department of Transportation (DOT) Hotline
Office of Hazardous Materials Standards (DOT)
Research and Special Programs Administration
400 7th Street, SW.
Washington, DC 20590-0001
Phone: 202 366-4488 or 800 467-4922
Fax: 202 366-3753
Web: http://hazmat.dot.gov

Answers questions on matters related to DOT's hazardous materials transportation regulations.

RCRA Docket Information Center (RIC)
U.S. Environmental Protection Agency
RCRA Docket Information Center (5305W)
1200 Pennsylvania Ave, NW.
Washington, DC 20460
Phone: 703 603-9230
Fax: 703 603-9234
E-mail: RCRA-Docket@epamail.epa.gov
Web: www.epa.gov/epahome/dockets.htm

Provides public access to all regulatory materials on solid waste and distributes technical and nontechnical information on solid waste.

Pollution Protection Information Clearinghouse (PPIC)
U.S. Environmental Protection Agency
1200 Pennsylvania Ave, NW.
Washington, DC 20460
Phone: 202 260-4659
Fax: 202 260-0178
E-mail: PPIC@epamail.epa.gov
Web: www.epa.gov/opptintr/library/libppic.htm

Provides a library and an electronic bulletin board (accessible by any PC equipped with a modem) dedicated to information on pollution prevention.

Information Resource Center
U.S. Environmental Protection Agency
Headquarters Library
1200 Pennsylvania Ave, NW.
IRC (3404)
Washington, DC 20460
Phone: 202 260-5922
Fax: 202 260-5153
E-mail: public-access@epamail.epa.gov
Web: www.epa.gov/natlibra/hairc

Maintains environmental reference materials for EPA staff and the general public, including books, journals, abstracts, newsletters, and audio-visual materials generated by government agencies and the private sector.

Methods Information Communication Exchange (MICE)
U.S. Environmental Protection Agency
OSW Methods Team
1200 Pennsylvania Ave, NW.
(5307W)
Washington, DC 20460
Phone: 703 676-4690 or 703 308-8855
Fax: 703 318-4682 or 703 308-0511
E-mail: mice@cpmx.saic.com
Web: www.epa.gov/sw-846

EPA Regional Offices

EPA Region 1
CT, MA, ME, NH, RI, VT
1 Congress Street
Suite 1100
Boston, MA 02114-2023
617 918-1111 or
800 372-7431 in Region 1
Library: 888 372-5427 or
617 918-1990

EPA Region 2
NJ, NY, PR, VI
290 Broadway
26th Floor
New York, NY 10007-1866
212 637-3000
Library: 212 637-3185

EPA Region 3
DC, DE, MD, PA, VA, WV
1650 Arch Street
Philadelphia, PA 19103-2029
215 814-5000 or
800 438-2474 in Region 3
Library: 215 814-5254

EPA Region 4
AL, FL, GA, KY, MS, NC, SC, TN
Atlanta Federal Center
61 Forsyth Street, SW
Atlanta, GA 30303-3104
404 562-9900
800 241-1754 in Region 4
Library: 404 562-8190

EPA Region 5
IL, IN, MI, MN, OH, WI
77 West Jackson Boulevard
Chicago, IL 60604
312 353-2000 or
800 621-8431 in Region 5



EPA Region 6
AR, LA, NM, OK, TX
1445 Ross Avenue
Suite 1200
Dallas, TX 75202-2733
214 665-2200 or
800 887-6063 in Region 6
Library: 214 665-6424

EPA Region 7
IA, KS, MO, NE
901 North 5th Street
Kansas City, KS 66101
913 551-7000 or
800 223-0425 in Region 7
Library: 913 551-7241

EPA Region 8
CO, MT, ND, SD, WY, UT
One Denver Place
999 18th Street
Suite 500
Denver, CO 80202-2466
303 312-6312 or
800 227-8917 in Region 8

EPA Region 9
AS, AZ, CA, GU, HI, MH, MP, NV
75 Hawthorne Street
San Francisco, CA 94105
415 744-1305
Library: 415 744-1510

EPA Region 10
AK, ID, OR, WA
1200 Sixth Avenue
Seattle, WA 98101
206 553-1200 or
800 424-4372 in Region 10
Library: 206 553-1289

Worksheet 3 These questions are geared toward the federal requirements for SQGs but may be helpful for other hazardous waste generators. Use them to help prepare for a visit from a federal, state, or local agency.

Yes	No	
☐	☐	Do you have documentation on the amount and kinds of hazardous waste that you generate and on how you determined that they are hazardous?
☐	☐	Do you have a U.S. EPA identification number?
☐	☐	Do you ship wastes off site?
☐	☐	If so, do you know the name of the transporter and the designated TSDF that you use?
☐	☐	Do you have copies of completed manifests used to ship your hazardous wastes over the past 3 years?
☐	☐	Are they filled out correctly?
☐	☐	Have they been signed by the designated TSDF and transporter?
☐	☐	If you have not received your signed copy of the manifest from the TSDF, have you filed an exception report?
☐	☐	Is your hazardous waste stored in proper containers or tanks?
☐	☐	Are the containers or tanks properly dated and/or marked?
☐	☐	Have you complied with the handling requirements described in this handbook?
☐	☐	Have you designated an emergency coordinator?
☐	☐	Have you posted emergency telephone numbers and the location of emergency equipment?
☐	☐	Are your employees thoroughly familiar with proper waste handling and emergency procedures?
☐	☐	Do you understand when you need to contact the National Response Center?
☐	☐	Do you store your waste for no more than 180 days, or 270 days if you ship your waste more than 200 miles?

ACRONYMS AND DEFINITIONS

Byproduct

A material that is not one of the primary products of a production process. Examples of byproducts are process residues such as slags or distillation column bottoms.

CESQG—Conditionally Exempt Small Quantity Generator

A business that generates less than 220 lbs (100 kg) per month of hazardous waste.

CFR—Code of Federal Regulations

The CFR is a codification of the general and permanent rules published in the Federal Register by the Executive departments and agencies of the federal government. The CFR is divided into 50 "titles," which represent broad areas subject to federal regulation. Each title is divided into chapters, which usually bear the name of the issuing agency.

Commercial Chemical Product

A chemical substance that is manufactured or formulated for commercial or manufacturing use.

Container

Any portable device in which a material is stored, transported, treated, disposed of, or otherwise handled.

DOT—Department of Transportation

Federal agency that oversees all national transportation systems and regulates the transport of hazardous materials.

Elementary Neutralization Unit

A tank, tank system, container, transport vehicle, or vessel (including ships) that is designed to contain and neutralize corrosive waste.

Implementing Agency

EPA regional office or state agency responsible for enforcing the hazardous waste regulations.

Incompatible Waste

A hazardous waste that can cause corrosion or decay of containment materials, or is unsuitable for comingling with another waste or material because a dangerous reaction might occur. See 40 CFR Part 265, Appendix V for more examples.

LDR—Land Disposal Restrictions

The LDR program ensures that toxic constituents present in hazardous waste are properly treated before hazardous waste is disposed of in the land (such as in a landfill).





LQG—Large Quantity Generator

A business that generates more than 2,200 lbs (1,000 kg) per month of hazardous waste.

MICE—Methods Information Communication Exchange

The MICE service provides answers to questions about test methods used to determine whether a waste is hazardous. It also takes comments on technical issues regarding EPA's methods manual known as Test Methods for Evaluating Solid Waste: Physical/Chemical Methods (SW-846).

MSDS—Material Safety Data Sheets

Chemical manufacturers and importers prepare detailed technical bulletins called Material Safety Data Sheets about the hazards of each chemical they produce or import. Your suppliers must send you an MSDS at the time of the first shipment of a chemical and any time the MSDS is updated with new and significant information about the hazards. MSDSs include information about components and contaminants, including exposure limits, physical data, fire and explosion hazard, toxicity, and health hazard data. It also discusses emergency and first aid procedures and information about storage and disposal, and spill or leak procedures.

NFPA—National Fire Protection Association

NFPA's mission is to reduce the worldwide burden of fire and other hazards on the quality of life by providing and advocating scientifically based codes and standards, research, training, and education. NFPA has specific rules for storing hazardous wastes.

PBT—Persistent, Bioaccumulative, and Toxic

Persistent chemicals are those that don't readily break down in the environment and can be transferred among air, water, soils, and sediments. Bioaccumulative chemicals are those that concentrate in animal and plant tissues as a result of uptake from the surrounding environment or as a result of one organism consuming another. Toxic chemicals, in this context, are those that are hazardous to human health and the environment. EPA has been tasked with focusing on reducing the toxicity of wastes in addition to the quantity of waste, and its Waste Minimization National Plan focuses on reducing PBT wastes.

POTW—Publicly Owned Treatment Works

A municipal wastewater treatment plant that receives wastewater through the public sewer from households, office buildings, factories and industrial facilities, and other places where people live and work.

Reclaimed Material

Material that is regenerated or processed to recover a usable product. Examples are the recovery of lead values from spent batteries and the regeneration of spent solvents.

Recovered Material

A material or byproduct that has been recovered or diverted from solid waste. Does not include materials or byproducts generated from, and commonly used within, an original manufacturing process.

Recycled Material

A material that is used, reused, or reclaimed.

Reused Material

A material that is employed as an ingredient in an industrial process to make a product, or is used as an effective substitute for a commercial product.

Spent Material

Any material that has been used and, as a result of contamination, can no longer serve the purpose for which it was produced without first processing it.

SQG—Small Quantity Generator

A business that generates between 220 and 2,200 lbs (100 and 1,000 kg) per month of hazardous waste.

Sludge

Any solid, semi-solid, or liquid waste generated from a municipal, commercial, or industrial wastewater treatment plant, water supply treatment plant, or air pollution control facility, exclusive of the treated effluent from a wastewater treatment plant.

Still Bottom

Residue or byproduct of a distillation process such as solvent recycling.

Tank

A stationary device designed to contain an accumulation of hazardous waste and that is constructed primarily of nonearthen materials (e.g., wood, concrete, steel, plastic).

Totally Enclosed Treatment Facility

A facility for the treatment of hazardous waste that is directly connected to an industrial production process and that is constructed and operated to prevent the release of hazardous waste into the environment during treatment. An example is a pipe in which waste acid is neutralized.

TCLP—Toxicity Characteristic Leaching Procedure

A testing procedure used to determine whether a waste is hazardous. The procedure identifies waste that might leach hazardous constituents into ground water if improperly managed.

TSDF—Treatment, Storage, and Disposal Facility

Refers to a facility that treats, stores, or disposes of hazardous waste; TSDFs have specific requirements under RCRA.

VOCs—Volatile Organic Compounds

VOCs are highly evaporative organic gases that can be produced during the manufacture or use of chemicals such as paints, solvents, and cleaners. Various pollution control devices can prevent the release of VOCs both outdoors and indoors.

Wastewater Treatment Unit

A tank or tank system that is subject to regulation under either Section 402 or 307(b) of the Clean Water Act, and that treats or stores an influent wastewater that is hazardous waste, or that treats or stores a wastewater treatment sludge that is hazardous.





United States
Environmental Protection Agency (5305W)
Washington, DC 20460

Official Business
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Hazardous Waste Generator Regulations

A User-Friendly Reference Document

Version 6: August 2012

EXHIBIT
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Item H 000409
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Introduction

This web-based document serves as a user-friendly reference to assist Environmental Protection Agency (EPA) and state staff, industrial facilities generating and managing hazardous wastes as well as the general public, in locating and understanding the current RCRA hazardous waste generator regulatory "requirements."[1] These requirements are located primarily in **Title 40 of the Code of Federal Regulations (CFR) at Part 262.** The requirements as laid out in this reference document are organized by generator status—that is, conditionally exempt small quantity generators (CESQGs), small quantity generators (SQGs), and large quantity generators (LQGs). Please note that this reference document is designed to be web-based, so the usefulness of the document is maximized when it is viewed on a computer that is connected to the internet.

This web-based document is not a substitute for the CFR itself or the requirements contained in the CFR. This document is also not a rulemaking in any way. Additionally, this reference document presents only the federal requirements for hazardous waste generators. Most States are authorized to manage their hazardous waste generator regulatory program. Therefore, States may have their own set of regulations that apply in lieu of federal regulations, and while most state hazardous waste regulations are based on the federal requirements, some states have developed regulations more stringent than the federal program. We direct you to the following website to determine if the state regulatory program is different from the federal program: http://www.epa.gov/epawaste/wyl/stateprograms.htm

This web-based document grows out of an evaluation of the hazardous waste generator program conducted in the spring of 2004 where EPA solicited input from its various stakeholders through the issuance of an Advanced Notice of Proposed Rulemaking (ANPRM). (Please see FR Volume 69, No.78, April 22, 2004, pages 21800-21804.) EPA received over 500 individual comments from numerous organizations identifying issues and areas of confusion with the current RCRA generator regulations, and offering suggestions for resolving those issues. (Please see www.regulations.gov and search for docket number RCRA-2003-0014.) The most frequently mentioned comment from stakeholders was the need for EPA to improve the user-friendliness of the existing regulations. Commenters noted that the applicable hazardous waste generator regulations currently are scattered throughout the CFR and can be difficult to follow due to the large

[1] Please note that hazardous waste generators are technically not subject solely to "requirements" in the sense of mandatory "demands," but are also subject to requirements in the sense of "conditions" or "prerequisites" that they must satisfy in order to qualify for optional exemptions from the requirement to obtain a RCRA treatment, storage or disposal permit. Specifically, 40 CFR 262.34 provides conditions that generators must satisfy in order to be excluded from RCRA permit and TSDF requirements. They are not mandatory requirements per se since a generator may choose not to come under 262.34 and choose to seek a RCRA permit instead. However, for convenience and simplicity, we use the term "requirements" throughout this reference document.

number of cross-references. As a result, hazardous waste generators have difficulty in understanding which regulations they must comply with.

The objective of this document is to address some of the commenters' concerns by consolidating and streamlining the generator regulatory requirements into a helpful reference tool that features a user-friendly format, including references to EPA FAQs (Frequently Asked Questions), letters, memoranda, and guidance documents that EPA has provided to the public through the years to help hazardous waste generators interpret the existing hazardous waste regulations. This document does not change any of the existing generator regulatory requirements.

This document is organized by hazardous waste generator status (e.g, CESQG, SQG and LQG), and, within those categories, by regulatory requirement as found in the CFR. The Summary Table provides a summary of regulatory requirements for each class of generator status. Also identified is the specific CFR citation for a particular regulatory requirement. In some cases, a particular regulatory requirement will be applicable to all classes of generators; in other cases to one or two classes.

This document is navigable in several ways. First, generators can use the Summary Table to link directly to the regulatory citation of interest in the Government Printing Office's Electronic Code of Federal Register website (E-CFR) EXIT Disclaimer by left-clicking the mouse on the hyperlinks in the table. Clicking on the hyperlink will open the e-CFR in a new web-browser window, so the original document will also remain open.

Secondly, generators can take advantage of the Table of Contents (page 2 of the document) or the bookmarks (located on the left-hand side of the screen) to navigate through the body of the document. The Table of Contents and bookmarks are organized by hazardous waste generator status ("Conditionally Exempt Small Quantity Generators", "Small Quantity Generators" and "Large Quantity Generators"). As a subset to each category of generator status, the user will find additional bookmarks linking to the regulatory requirements for each class of generator. In some cases, a particular regulatory requirement will be applicable to all classes of generators; in others cases, to one or two classes. As above, generators can use the Table of Contents and bookmarks to navigate by clicking the left side of the mouse on the link of interest in order to move within the document.

Additionally, with this and any subsequent versions of this document, we will no longer provide links to the Government Printing Office (GPO) for each of the regulatory citations throughout the document, but will instead now provide links only for those citations found in the Summary Chart, *Hazardous Waste Generator Regulatory Requirements,* as well as to the E-CFR.

We will continue to provide, where applicable, hyperlinks to FAQs, letters, and memoranda issued by EPA, as well as guidance documents developed by EPA that provide further clarification of the hazardous waste generator regulations. We have attempted to identify the relevant related FAQs, letters, memoranda, etc. on a particular subject (miscellaneous resources can be found at the end of the document). However, please note that it is possible that EPA could have inadvertently overlooked a relevant document and did not include it in this reference document. Therefore we cannot guarantee that we captured every relevant document in each and every instance.

This document represents the Version 6 update. This version corrects the regulatory citations for Emergency Response (Item 18) and Preparedness and Prevention (Item 21) by small quantity generators (SQGs) found in the Summary Chart. As part of Version 6, we have also included user-friendly web links to other parts of the RCRA hazardous waste regulatory program. See below.

Because regulations are promulgated throughout the year, EPA will continue to update this reference document periodically to remain up-to-date with the hazardous waste generator regulatory requirements. However, as noted previously, this web-based reference document is not a substitute for the CFR itself or the requirements in the CFR.

This reference document assumes that a solid and hazardous waste has been generated. See 40 CFR 261.2 of the E-CFR for the definition of solid waste regulations and 40 CFR 261.3 of the E-CFR for the definition of hazardous waste regulations. We also have included user-friendly web links to both the definition of solid waste and definition of hazardous waste regulatory programs. See http://www.epa.gov/epawaste/hazard/dsw/compendium.htm and http://www.epa.gov/epawaste/hazard/refdocs.htm.

Please contact the following persons within EPA's Office of Resource Conservation and Recovery (ORCR) with any questions or comments concerning this document:

Jim O'Leary
oleary.jim@epa.gov
(703) 308-8827

Kristin Fitzgerald
Fitzgerald.kristin@epa.gov
(703) 308-8286

Summary Chart

Hazardous Waste Generator Regulatory Requirements

	REQUIREMENT	CESQG	SQG	LQG
1	Purpose, Scope and Applicability	See 40 CFR 262.10 (a) and (b)	See 40 CFR 262.10	See 40 CFR 262.10
2	Generator Status Determination	See 40 CFR 261.5(c) and (d)	See 40 CFR 261.5(c) and (d)	See 40 CFR 261.5(c) and (d)
3	Hazardous Waste Determination	See 40 CFR 262.11	See 40 CFR 262.11	See 40 CFR 262.11
4	Acute Hazardous Wastes	See 40 CFR 261.5 (e) and (f)	See 40 CFR 262.34 (c) (1) and (c) (2)	See 40 CFR 262.34 (c) (1) and (c) (2)
5	Mixing	See 40 CFR 261.5 (h)-(j)	**N/A***	**N/A**
6	On-site Accumulation Time Limits	**N/A**	See 40 CFR 262.34 (d)-(f)	See 40 CFR 262.34 (a)
7	On-Site Accumulation Quantity Limits	See 261.5 (a)	See 40 CFR 262.34 (d)	**N/A**
8	Consequences of Exceeding Quantity Limits	See 261.5 (g)	See 40 CFR 262.34 (f)	**N/A**
9	Consequences of Exceeding Time Limits	N/A	See 40 CFR 262.34 (e)	See 40 CFR 262.34 (b)
10	**Management Requirements**	See 40 CFR 261.5 (g)	**See Items 11-18, 20-30, 37, as applicable**	**See Items 11-37, as applicable**
11	EPA ID Number	**N/A**	See 40 CFR 262.12	See 40 CFR 262.12
12	Accumulation Requirements for Storage Units: Containers	**N/A**	See 40 CFR 265.170-174 and 177	See 40 CFR 265.170-178
13	Accumulation Requirements for Storage Units: Tanks	**N/A**	See 40 CFR 265.201	See 40 CFR 265.190-200 and 202

	REQUIREMENT	CESQG	SQG	LQG
14	Satellite Accumulation	N/A	See 40 CFR 262.34 (c)	See 40 CFR 262.34 (c)
15	Marking and Labeling	N/A	See 40 CFR 262.34 (a)(2) and (a)(3)	See 40 CFR 262.34 (a)(2) and (a)(3)
16	Personnel Training	N/A	See 40 CFR 262.34(d)(5)(iii)	See 40 CFR 265.16
17	Recordkeeping	N/A	See 40 CFR 262.44	See 40 CFR 262.40
18	Emergency Procedures and Response	N/A	See 40 CFR 262.34 (d)(5) (i)-(ii) and (iv)	See 40 CFR 265.50-56
19	Biennial Report	N/A	N/A	40 CFR 262.41
20	Additional Reporting	N/A	40 CFR 262.43	40 CFR262.43
21	Preparedness and Prevention	N/A	See 40 CFR 265.30-37	See 40 CFR 265.30-37
22	Land Disposal Restrictions	N/A	See 40 CFR 268	See 40 CFR 268
23	Pre-transport Requirements	N/A	See 40 CFR 262.30-33	See 40 CFR 262.30-33
24	Manifests	N/A	See 40 CFR 262.20-27	See 40 CFR 262.20-27
25	Exception Reporting	N/A	See 40 CFR 262.42	See 40 CFR 262.42
26	Appendix to Part 262—Uniform Hazardous Waste Manifest and Instructions	N/A	See 40 CFR Appendix to Part 262	See 40 CFR Appendix to Part 262
27	Exports	N/A	See 40 CFR 262.50-58	See 40 CFR 262.50-58
28	Imports	N/A	See 40 CFR 262.60	See 40 CFR 262.60

	REQUIREMENT	CESQG	SQG	LQG
29	Transfrontier Shipments of Hazardous Waste for Recovery within the OECD	N/A	See 40 CFR 262.80-89	See 40 CFR 262.80-89
30	Farmers	N/A	See 40 CFR 262.70	See 40 CFR 262.70
31	Accumulation Requirements for Storage Units: Containment Buildings	N/A	N/A	See 40 CFR 265.1100-1102
32	Accumulation Requirements for Storage Units: Drip Pads	N/A	N/A	See 40 CFR 265.440-445
33	Air Emissions Subpart AA Subpart BB Subpart CC	N/A	N/A	 See 40 CFR 265.1030-1035 See 40 CFR 265.1050- 1064 See 40 CFR 265.1080-1090
34	Closure and Post-Closure	N/A	N/A	See 40 CFR 265.111 and 114
35	Special Requirements for Generators of F006	N/A	N/A	See 40 CFR 262.34 (d)-(i)
36	Special Requirements for Performance Track Members	N/A	N/A	See 40 CFR 262.34 (j) and (k)
37	Subpart K—Alternative Requirements for Hazardous Waste Determination and Accumulation of Unwanted Material for Laboratories Owned by Eligible Academic Entities	See 40 CFR 262.200-216	See 40 CFR 262.200-216	See 40 CFR 262.200-216

* **N/A** = not applicable

General Hazardous Waste Generator Resources

- Hazardous Waste Management System: Definitions
- Resource Conservation and Recovery Act: 2011 Orientation Manual
- RCRA Training Modules
    - RCRA Hazardous Waste Generator Training Module
    - RCRA Hazardous Waste Identification Training Module
- EPA Office of Enforcement and Compliance Assurance: Compliance Assistance Centers
- Small Quantity Generator Handbook on Managing Hazardous Waste
- Frequently Asked Questions on Waste

Important Federal Register (FR) Documents

- Preamble to Original Hazardous Waste Generator Regulations (See 45 FR 33142) May 19, 1980, as amended at 45 FR 86970, December 31, 1980.
- 47 FR 1251, January 11, 1982 as related to Purpose, scope and applicability at 40 CFR 262.10 and Accumulation Time at 40 CFR 262.34.
- 51 FR 10146, March 24, 1986 as related to regulations for Small Quantity Generators.
- 51 FR 25422, July 14, 1986 as related to hazardous waste tank standards
- 70 FR 10776, March 4, 2005 and 70 FR 35034, June 16, 2005 as related to the hazardous waste manifest regulations.
- 71 FR 16862, April 4, 2006, as related to RCRA Burden Reduction Initiative.
- 73 FR 72912, December 1, 2008 as related to Subpart K and the Academic Laboratories regulations.

RCRA Training Module

Solid Waste and Emergency Response
(5305W)
EPA530-K-05-011

Introduction to
Generators
(40 CFR Part 262)

EPA
United States
Environmental Protection
Agency



September 2005

GENERATORS

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1. INTRODUCTION

The Resource Conservation and Recovery Act (RCRA) sets forth an approach for handling the volumes of waste generated in the United States each year. Based on the authority granted by RCRA Subtitle C, EPA developed regulations for the cradle-to-grave management of hazardous waste. Persons who produce hazardous waste, called hazardous waste generators, are the first link in this cradle-to-grave system. The RCRA regulations establish basic hazardous waste management standards for generators. The generator regulations ensure that hazardous waste is appropriately identified and handled safely to protect human health and the environment, while minimizing interference with daily business operations. A solid foundation in the generator regulations is critical to a thorough understanding of the regulations governing the management of hazardous waste from the moment it is produced, or the point of generation, through final disposition.

When you have completed this module, you will be able to explain the definitions and regulations that apply to generators of hazardous waste. Specifically, you will be able to:

- define the terms "generator" and "co-generator"
- list the three classes of generators, outline the different generation and accumulation limits, and provide specific regulatory citations
- define episodic generation
- explain the use of EPA identification (ID) numbers and manifests
- outline the accumulation standards, define "empty tank" and "start time" for waste accumulation purposes, and identify regulations pertaining to accumulation in tanks, containers, containment buildings, and on drip pads
- define "satellite accumulation" and provide the applicable Federal Register citations
- cite the CFR section covering recordkeeping and reporting requirements for generators
- recognize copies of notification forms and manifests, and explain how they are obtained.

Use this list of objectives to check your knowledge of this topic after you complete the training session.

2. REGULATORY SUMMARY

The RCRA regulations establish a comprehensive hazardous waste management system under the authority of RCRA Subtitle C. RCRA regulates hazardous waste from its point of generation through its point of final disposal. Hazardous waste generators are the first link in the cradle-to-grave hazardous waste management system. Pursuant to the authority granted by RCRA §3002(a), EPA has developed generator standards that address on-site accumulation of hazardous waste, cradle-to-grave tracking (manifest system), labeling, and recordkeeping and reporting requirements. These standards are found in 40 CFR Part 262.

Recognizing that generators produce waste in different quantities, Congress established three categories of generators in the statute: large quantity generators (LQGs), small quantity generators (SQGs), and conditionally exempt small quantity generators (CESQGs). The extent of regulation to which hazardous waste generators are subject depends on the volume of hazardous waste each generator produces. This module defines the three classifications of generators and explains the varying degree of regulation to which each is subject.

In order to fully understand the responsibilities of hazardous waste generators, we first need to review the hazardous waste determination process.

2.1 HAZARDOUS WASTE DETERMINATION

As discussed in other modules, §262.11 requires generators to determine if their wastes are hazardous. The hazardous waste determination requirement applies to *all* generators of solid waste. Section 262.11 sets forth the following three-step hazardous waste determination process that any person who generates a solid waste, as defined in §261.2, must follow. First, the generator must determine if the solid waste is excluded from RCRA regulation in §261.4. Second, if the waste is not excluded, the generator must determine if it is listed in Subpart D of Part 261. Third, for purposes of compliance with the land disposal restrictions or if the waste is not listed in Subpart D of Part 261, the generator must identify all relevant hazardous waste characteristics in Subpart C of Part 261. The modules entitled Hazardous Waste Identification, Definition of Solid Waste and Hazardous Waste Recycling, and Solid and Hazardous Waste Exclusions together present the process of hazardous waste determination in detail. It is the generator's responsibility to determine if his or her wastes are defined as hazardous and therefore subject to regulation under Subtitle C. As discussed in Sections 2.3 and 2.4 of this module, once a generator determines a material meets the definition of a hazardous waste, the generator must determine the extent of regulation to which he or she is subject.

Generators are not required to perform analytical testing to identify their wastes. They are, however, required to accurately characterize their wastes. This means they may make a hazardous waste determination by testing *or* applying their knowledge of the waste's chemical and physical properties as specified in §262.11 (e.g., knowledge of the process, inputs, reactions, or operating status for the day).

2.2 DEFINITION OF GENERATOR

Section 260.10 defines a generator as "any person, by site, whose act or process produces hazardous waste identified or listed in Part 261 or whose act first causes a hazardous waste to become subject to regulation." This definition contains three important terms you need to understand to apply the generator regulations.

The first term, "by site," refers to *where* a hazardous waste is generated. The regulations do not explicitly define the term "site." EPA tracks hazardous waste generation on a site-specific basis or by "individual generation site." To do this, EPA issues unique identification numbers to identify generators by site. Activities occurring under the control of an owner or operator on a single piece of property should be evaluated collectively for hazardous waste generation. For example, if Company A operates three laboratories on a single piece of property, all three laboratories may share one EPA ID number, and the waste from all three laboratories may be evaluated together. If, however, Company A operates three laboratories at three different locations that are not considered to be on contiguous property, each laboratory is viewed as a separate potential generator and is required to obtain an individual EPA ID number.

The second term is "person." Person is defined in §260.10 as "an individual, trust, firm, joint stock company, federal agency, corporation (including a government corporation), partnership, association, state, municipality, commission, political subdivision of a state, or any interstate body." The definition of person encompasses any entity involved with a process that generates hazardous waste.

The third key component of the generator definition is the phrase "act or process." Because a generator is defined as the person whose *act or process* first causes a hazardous waste to become *subject to regulation*, sometimes the generator of a waste may not necessarily be the person who actually produced the waste. For example, if a cleaning service removes residues from a product storage tank excluded in §261.4(c), the person removing the residues is the first person to cause the waste to become subject to regulation, not the owner of the tank (i.e., the person who produced the waste).

CO-GENERATORS

In the above residue removal example, the person removing the waste from the unit is not the owner or operator of the unit, but he or she may be considered a generator. The owner or operator of the unit may also be considered a generator since the act of operating the unit led to the generation of the hazardous waste. In other words, both the remover of the waste and the owner or operator of the tank are considered to be co-generators. In cases where one or more persons meet the definition of generator, all persons are jointly and severally liable for compliance with the generator regulations. The parties may through a mutual decision have one party assume the duties of generator, but in the event that a violation occurs, all persons meeting the definition of generator could be held liable for the improper management of the waste (45 FR 72024, 72026; October 30, 1980).

2.3 THREE GENERATOR CLASSIFICATIONS

The original generator regulations, published on May 19, 1980, set forth comprehensive requirements for those persons who generated 1,000 kg or more of hazardous waste in a calendar month (45 FR 33142). These regulations also included generators who produced more than 1 kg of acute hazardous waste in a calendar month. Persons generating less than 1,000 kg of hazardous waste (or less than or equal to 1 kg of acute hazardous waste) in a calendar month were granted a conditional exemption and subject to reduced regulatory requirements.

Congress amended the definition of generator in the Hazardous and Solid Waste Amendments of 1984 (HSWA), requiring EPA to regulate more stringently persons who generate between 100 and 1,000 kg of hazardous waste in a calendar month. On March 24, 1986, EPA issued final regulations establishing a third class of generators (persons generating 100-1,000 kg per month), and narrowed the scope of the conditional exemption to include only persons generating 100 kg or less of hazardous waste in a calendar month (51 FR 10146). Generators who produce 1 kg or less of an acute hazardous waste were also granted the conditional exemption.

Generators now fall into one of three general groups according to the amount of waste generated in a calendar month. The three classes of generators are described in Table 1. Since the regulations become increasingly stringent as the volume of waste generated grows, accurate counting of the waste is critical. This complex counting issue will be addressed in the next section of the module.

Table 1
QUANTITY DETERMINES WHICH REGULATIONS APPLY

Generator	Quantity	Regulation
Large Quantity (LQG)	≥ 1,000 kg/month (approximately 2,200 lbs) > 1 kg/month acute (approximately 2.2 lbs) > 100 kg residue or contaminated soil from cleanup of acute hazardons waste spill	All Part 262 Requirements
Small Quantity (SQG)	Between 100-1,000 kg/month (approximately 220-2200 lbs)	Part 262, Subparts A, B, C (§262.34(d) is specific to SQGs); and Subparts E, F, G, H if applicable; and portions of Subpart D as specified in §262.44
Conditionally Exempt Small Quantity (CESQG)	≤ 100 kg/month ≤ 1 kg acute ≤ 100 kg residue or contaminated soil from cleanup of acute hazardous waste spill	§261.5

LARGE QUANTITY GENERATOR

LQGs produce 1,000 kg or more of hazardous waste per calendar month, or more than 1 kg of acutely hazardous waste (i.e., waste codes denoted with the hazard code "H" and all P-listed wastes). Wastes from these generators are subject to full regulation in Part 262.

SMALL QUANTITY GENERATOR

SQGs produce between 100 and 1,000 kg of hazardous waste per calendar month and are subject to modified regulations found in Part 262. Generally, SQGs must comply with some but not all of the regulations that apply to LQGs. Simplified requirements are specified for SQGs in place of some LQG requirements.

CONDITIONALLY EXEMPT SMALL QUANTITY GENERATOR

CESQGs produce 100 kg or less of hazardous waste per calendar month. In addition, generators who produce 1 kg or less of acutely hazardous waste, or 100 kg or less of contaminated soil, waste, or debris resulting from the cleanup of an acute hazardous waste spill, are CESQGs. CESQGs are exempt from Parts 262 through 270 if they comply with the requirements in §261.5.

EPISODIC GENERATORS

Generators may periodically exceed or fall below their normal generation limits in any given calendar month. If the amount of waste generated in a given calendar month places the generator in a different category, he or she is responsible for complying with all applicable requirements of that category for all waste generated during that calendar month. For example, if a generator produces 300 kg of hazardous waste in March, that waste must be managed in accordance with the SQG regulations; if the same generator produces 1,500 kg of hazardous waste in April, that waste must be managed in accordance with the LQG regulations (51 FR 10146, 10153; March 24, 1986).

2.4 COUNTING WASTE

Generators must count the quantity of hazardous waste generated each month in order to determine their generator classification. The regulations stating which hazardous wastes are counted in a generator's monthly quantity determination are found in §261.5(c) and (d). All generators must comply with the counting requirements found in §261.5(c) and (d), even though the counting requirements are found in the section of the regulations that primarily applies to CESQGs.

A generator must include all hazardous waste that it generates, except hazardous waste that:

- is exempt from regulation in §§261.4(c) through (f), 261.6(a)(3), 261.7(a)(1), or 261.8
- is managed immediately upon generation only in on-site elementary neutralization units,

wastewater treatment units, or totally enclosed treatment facilities as defined in §260.10

- is recycled, without prior storage or accumulation, only in an on-site process subject to regulation in §261.6(c)(2)
- is used oil managed under the requirements in §261.6(a)(4) and Part 279
- is spent lead-acid batteries managed under the requirements in Part 266, Subpart G
- is universal waste managed pursuant to §261.9 and Part 273.

To avoid double counting, §261.5(d) states that the following types of waste need not be counted when determining generator classification. All of these wastes have already been counted when they were initially generated:

- hazardous waste when removed from on-site storage
- hazardous waste produced by on-site treatment (including reclamation) as long as the hazardous waste was counted once
- spent materials generated, reclaimed, and subsequently reused on site, as long as the spent material is counted once during the calendar month.

2.5 ACCUMULATION STANDARDS

Storage of hazardous waste generally requires a permit under the RCRA regulations. There are, however, provisions under RCRA that allow generators to "accumulate" hazardous waste on site without a permit as long as they comply with certain management standards for their accumulation unit(s) and for their facility, such as a contingency plan and personnel training requirements. The length of time a generator is allowed to accumulate his or her waste will vary depending on the generator's classification, as illustrated in Table 2. The regulations pertaining to accumulation of hazardous waste on site are found in §262.34 for LQGs and SQGs, and in §261.5 for CESQGs.

Table 2
TYPE OF GENERATOR DETERMINES LENGTH OF ACCUMULATION TIME

Generator	On-site Accumulation Time	On-site Quantity Limit
Large Quantity	≤ 90 days on site	No Limit
Small Quantity	≤ 180 days on site or ≤ 270 days if shipped 200 miles or more	6,000 kg

Conditionally Exempt Small Quantity	N/A	1,000 kg 1 kg acute 100 kg residue or contaminated soil from cleanup of acute hazardous waste spill

ACCUMULATION UNITS

LQGs accumulating hazardous wastes pursuant to §262.34 may only do so in containers, tanks, containment buildings, or on drip pads. SQGs may only accumulate waste in tanks or containers. If SQGs wish to accumulate waste in containment buildings or on drip pads, then they must meet the LQG standards. While these units do not need RCRA storage permits when used for generator accumulation, they must comply with certain standards found in the Part 265 requirements for interim status units, such as release detection and prevention requirements. Generators who accumulate hazardous waste in containers must comply with certain sections in Part 265, Subpart I. Generators who accumulate hazardous waste in tanks must comply with certain sections in Part 265, Subpart J, potentially including secondary containment and release detection. Generators who accumulate hazardous waste in containment buildings must comply with Part 265, Subpart DD. Generators who accumulate hazardous waste on drip pads must comply with Part 265, Subpart W; only generators managing wood preserving wastes may use drip pads for hazardous waste accumulation. All accumulation containers and tanks must be labeled or marked "Hazardous Waste" (§262.34(a)(3)). Finally, LQGs must comply with the air emission control requirements in Part 265, Subparts AA, BB, and CC, for accumulation tanks and containers (§262.34(a)(1)(i) and (ii)). The modules entitled Tanks, Containers, Drip Pads, Containment Buildings, and Air Emissions provide additional information on the hazardous waste unit standards.

The time period for generator waste accumulation starts when waste is first placed in or on the empty accumulation unit (e.g., tank, container, drip pad, or containment building). Tanks and containers must be marked with the date accumulation begins (51 FR 10146, 10160; March 24, 1986). In order to avoid exceeding the time limits when accumulating in a tank, the generator should fully empty the tank every 90, 180, or 270 days, as appropriate (47 FR 1248; January 11, 1982). All wastes must be removed from drip pads and their associated collection systems at least once every 90 days (§262.34(a)(1)(iii)(A)).

SATELLITE ACCUMULATION

Prior to consolidation in the generator's waste accumulation area, §262.34(c) allows generators to accumulate hazardous waste at or near the point where it is initially generated and collected during daily operations (49 FR 49568; December 20, 1984). A person may accumulate up to 55 gallons of hazardous waste or 1 quart of acute hazardous waste at each satellite accumulation area, if it is under the control of the person operating the process that generates the waste. Limited standards, such as labeling and maintaining the container in good condition, apply to satellite areas (§262.34(c)(1)(i) and (ii)). Once the 55-gallon or 1 quart limit is exceeded at the satellite area, the excess waste must be dated and moved within three days to the central accumulation area where §262.34 standards apply (or the waste can be shipped directly off site). The accumulation limit is 55 gallons, regardless of the size of the container used.

ACCUMULATION TIME LIMITS

Pursuant to §262.34(a), an LQG is allowed to accumulate hazardous waste on site for up to 90 days in specified units without obtaining a storage permit or interim status, provided he or she complies with Part 265 management standards for specific units as specified in §262.34. (It is important to note, however, that generators that accept waste from other generators or from off-site locations are owners or operators of storage facilities subject to Parts 264 and 265.)

An SQG may accumulate up to 6,000 kg of hazardous waste for 180 days or less without a storage permit or interim status if he or she complies with the modified standards in §262.34(d). If the TSDF is 200 miles or more away, the generator may accumulate hazardous waste for 270 days or less (§262.34(e)). Note that these extended time limits only apply to SQGs accumulating waste in tanks or containers. SQGs who accumulate waste in containment buildings or on drip pads are subject to the accumulation standards for LQGs.

Generators may receive a 30-day extension to their 90-day, 180-day, or 270-day accumulation period if uncontrollable and unforeseen circumstances cause them to accumulate waste on site for longer than the allowed time period. Such an extension may be granted by a Regional Administrator or authorized state on a case-by-case basis (§262.34(b) and (f)). An example of an uncontrolled or unforeseen circumstance is a truckers' strike preventing the shipment of waste off site.

LQGs and SQGs accumulating waste beyond the authorized time limits for their categories become subject to the requirements in Parts 264 and 265, and the permitting provisions in Part 270. An SQG who accumulates more than 6,000 kg during the authorized period is also subjeet to the applicable storage facility regulations in Parts 264 and 265, and the permitting provisions of Part 270.

TREATMENT WITHOUT A PERMIT

EPA interprets the accumulation provisions in §262.34 as allowing generators to accumulate their waste for the allotted time period and to treat their waste in the accumulation unit, provided the generator complies with the requirements in §262.34 as well as the unit-specific requirements in Part 265 for tanks, containers, or containment buildings. This interpretation allows generators to treat hazardous waste on site without obtaining a permit or interim status (51 FR 10146, 10168; March 24, 1986, and 57 FR 37194; August 18, 1992). Some states interpret "accumulation" to include only storage and not treatment, however, and these states may require the generator to obtain a permit in order to conduct treatment. Generators who treat wastes in accumulation tanks, containers, or containment buildings to meet the Part 268 land disposal restriction treatment standards must comply with §268.7(a)(5) and have a waste analysis plan on site (discussed further in the module entitled Land Disposal Restrictions). EPA has not extended the interpretation of accumulation to allow generators of wood preserving wastes to treat waste on drip pads because drip pads are intended to serve solely as a means of conveying treated wood drippage and other related wastes to an associated collection system. In addition, there is no definitive federal interpretation of accumulation to allow treatment in satellite accumulation units; thus, the decision should be made by the appropriate implementing agency. (Please note, however, that the regulations and policy letters that discuss generator treatment do not directly

address satellite accumulation units, and the structure of the regulations does not explicitly provide for it).

GENERAL ACCUMULATION STANDARDS

LQGs accumulating hazardous waste on site pursuant to §262.34(a) must comply with the preparedness and prevention procedures in Part 265, Subpart C. These requirements include having an emergency coordinator and testing and maintaining emergency equipment. SQGs are also subject to the preparedness and prevention procedures in Part 265, Subpart C (§262.34(d)(4)).

LQGs must develop and maintain a contingency plan on site, as found in Part 265, Subpart D, which outlines the response procedures necessary to minimize the hazards posed by fires, explosions, or unplanned releases of hazardous waste from the facility (§262.34(a)(4)). Such a plan is not required for SQGs, although §262.34(d)(5)(iv) outlines appropriate response procedures.

LQGs must comply with the personnel training requirements referenced in §265.16. These regulations require facility personnel to complete classroom or on-the-job training to become familiar with proper hazardous waste management and emergency procedures for the wastes handled at the facility. SQGs must follow modified personnel training requirements in §262.34(d)(5)(iii).

CESQGs

Hazardous waste generated by a CESQG is not subject to specific management standards (Parts 262-270) for accumulation under the federal hazardous waste regulations provided the CESQG does not accumulate more than 1,000 kg of hazardous waste (or more than 1 kg of acute hazardous waste, or more than 100 kg of spill residue from an acute hazardous waste) on site at any time. A CESQG who exceeds the 1,000 kg limit for hazardous waste becomes subject to the SQG requirements in §262.34(d) (§261.5(g)). On the other hand, a CESQG becomes subject to full regulation (i.e., large quantity generator regulations) when the quantity of waste accumulated exceeds any of the limits specified for acute hazardous wastes (§261.5(f)).

Section 261.5(f)(3) and (g)(3) state that CESQGs may either treat or dispose of their waste in an on-site facility, or ensure delivery to an off-site treatment, storage, or disposal facility. The on-site or off-site facility, if located in the United States, must be one of the following:

- a federally permitted or interim status hazardous waste treatment, storage, or disposal facility
- a facility that is located in an authorized state and that is authorized to manage hazardous waste
- a facility permitted, licensed, or registered by a state to manage municipal or non-municipal, non-hazardous solid waste
- a facility that beneficially uses, reuses, or reclaims the waste
- a universal waste handler or destination facility subject to the requirements in Part 273.

The information in this document is not by any means a complete representation of EPA's regulations or policies, but is an introduction to the topic used for training purposes.

2.6 PRE-TRANSPORT REQUIREMENTS

Before shipping hazardous waste off site to a RCRA facility for treatment, storage, or disposal, a generator must comply with numerous pre-transport requirements. These requirements include obtaining an EPA ID number, preparing a Uniform Hazardous Waste Manifest (EPA Form 8700-22), and complying with several Department of Transportation (DOT) requirements.

EPA IDENTIFICATION NUMBERS

A generator must obtain an EPA ID number before treating, storing, disposing, or transporting (or offering for transport) hazardous waste. EPA ID numbers are site-specific numbers assigned to generators, transporters, and treatment, storage, or disposal facilities, and need only be obtained once, although the generator should update the state or Region if his or her waste activities change. CESQGs, however, are not required to obtain EPA ID numbers.

Each EPA ID number consists of twelve alphanumeric characters. The first two letters are simply the two-letter abbreviation for the state in which the facility is located; whereas, the third character is either a number or letter indicating the "type" of ID number (e.g., automatically generated by RCRAInfo). A nine-digit number uniquely associated with the site follows these first three characters. Emergency EPA ID numbers are also available in certain situations (45 FR 85022; December 24, 1980).

EPA ID numbers are obtained by filing Form 8700-12, "Notification of Regulated Waste Activity," with the appropriate EPA Regional or authorized state RCRA office. The notification forms are obtained from state or Regional offices or via the Internet.

MANIFEST (EPA FORM 8700-22)

Generally, a generator who transports, or offers for transportation, hazardous waste for off-site treatment, storage, or disposal must prepare a Uniform Hazardous Waste Manifest. The manifest is a multiple-copy tracking document for hazardous waste shipments that is required by DOT and EPA. The manifest tracks the chain of custody for the waste from the point it leaves the generator to final disposition at a hazardous waste TSDF or a recycling facility. Each party that manages the waste signs the manifest and retains a copy, providing critical continuity between the generator and the receiving facility (Part 262, Subpart B). Once the chain is complete, the receiving facility returns a signed copy of the manifest to the generator. If a generator does not receive a copy of the manifest signed by the designated facility owner or operator within 45 days of the date the waste was accepted by the initial transporter (60 days for a SQG), he or she must file an exception report (§262.42). SQGs that have tolling agreements with recycling facilities and CESQGs are not required to use a manifest when shipping their waste off site. Additionally, the manifest requirements do not apply to the transportation of hazardous wastes on rights-of-way on or between contiguous properties, and along the perimeter of contiguous properties controlled by the same person (§262.20(f)).

A copy of the manifest forms and instructions for completing it are found in the Appendix to Part 262. All numbered sections on the manifest must be completed to meet federal requirements. The lettered sections are options that may be required by the generator's or receiving facility's

state. Since states may customize the manifest, §262.21 explains which state's manifest must be used when waste transportation is interstate. Federal EPA does not require hazardous waste codes to be included on the manifest, however state law may require waste codes.

DESIGNATED FACILITY

According to §262.20, a generator must designate one facility on the manifest that is permitted to handle the waste described on the manifest. A designated facility, as defined in §260.10, is a federally or state-permitted treatment, storage, or disposal facility or a recycling facility as regulated pursuant to §261.6(c)(2) or Part 266, Subpart F. The generator may also designate an alternate facility in case the transporter cannot deliver the waste to the primary designated facility. If the transporter is unable to deliver the shipment to either facility on the manifest, the generator must designate a third facility.

"ON-SITE" TRANSPORTATION

The Part 262 manifesting requirements do not apply to "on-site" transportation of hazardous waste. "On-site" is defined in §260.10 as:

- contiguous property — property that is one continuous plot of land or several plots of adjoining land
- noncontiguous properties with a private right-of-way under the control of the owner of the properties
- contiguous property divided by a road (public or private) with the property entrance and exit directly across from each other and perpendicular to the road (crossroads intersection).

In addition, manifests are not required for shipments of hazardous waste on rights-of-way on or between contiguous properties, and along the perimeter of contiguous properties controlled by the same person to facilitate transport of hazardous waste between contiguous sites that must be accessed by driving along a public road (e.g., university campuses, military bases) (§262.20(f)).

DEPARTMENT OF TRANSPORTATION REQUIREMENTS

DOT requires that generators of hazardous waste subject to manifesting meet several requirements before transporting or offering hazardous waste for transport off site, including packaging (§262.30), labeling (§262.31), marking (§262.32), and placarding (§262.33). The DOT regulations are found in 49 CFR Parts 172 through 179.

2.7 REPORTING AND RECORDKEEPING

Generators have several recordkeeping and reporting responsibilities in Subpart D of Part 262. These requirements specify the records a generator must keep and the length of time a generator must retain these records. In addition, SQGs have special requirements identified in §262.44.

REPORTING REQUIREMENTS

LQGs who ship hazardous waste off site to a TSDF, or who treat, store, or dispose of hazardous waste on site, must submit a Biennial Report (EPA Form 8700-13A/B) to EPA by March 1 of each even-numbered year (§262.41). The Biennial Report compiles data collected from off-site shipments of waste during the previous calendar year. The report includes information such as the EPA ID number, name, and address of the generator; the EPA ID number of each TSDF in the United States to which waste was sent during the period (as well as the quantity of hazardous waste sent); and the manner in which the waste will be treated.

As stated earlier, LQGs and SQGs may also need to submit exception reports pursuant to the requirements in §262.42. Finally, EPA may require the generator to submit additional reports or information pursuant to §262.43.

RECORDKEEPING REQUIREMENTS

Under §262.40, the generator must keep a signed copy of the manifest for at least three years from the date the waste was accepted by the initial transporter. The generator must also retain a copy of each Biennial Report and Exception Report for a period of three years from the due date of the report. In addition to these requirements, a generator must keep records of any test results, waste analyses, or other determinations made in accordance with §262.11 for at least three years. These time periods are extended automatically during the course of any enforcement action.

2.8 EXPORT AND IMPORT REQUIREMENTS

Part 262 contains several provisions that apply to exporters and importers of hazardous waste. Part 262, Subpart E, applies to exporters of hazardous waste and is designed to ensure that hazardous waste is not exported to a foreign country without that country's prior consent. Part 262, Subpart F, contains the regulations that apply to importers of hazardous waste. Part 262, Subpart H, contains the regulations implementing the Organization for Economic Cooperation and Development (OECD) Decision Concerning the Control of Transfrontier Movements of Wastes Destined for Recovery Operations.

EXPORTS

A person who is defined as a primary exporter per §262.51 must follow the requirements outlined in §§262.50 through 262.58, including specific notification of intent to export (§262.53) and proper notification as required by the land disposal restrictions program. Exporters must also ensure that they are in compliance with any applicable international trade agreements.

IMPORTS

Any person who imports hazardous waste is considered the generator of the waste and must comply with the requirements in Part 262, as well as the special importer regulations in Subpart F. These special regulations require the importer to use the name and address of the foreign generator and the importer's name, address, and EPA ID number on the manifest. The

transporter and the U.S. facility arranging for the importation of the waste are both considered importers; however, the parties must agree on which one of the two will assume the generator duties.

OECD DECISION

On April 12, 1996, EPA published a final rule establishing regulations to implement the OECD Decision (61 FR 16289). The OECD Decision requires member countries to establish regulations for hazardous waste exported to or imported from other member countries for recycling. As required by the OECD Decision, the regulations establish a graduated system (green, amber, red) of procedural and substantive controls when wastes move across national borders within the OECD for recovery (Part 262, Subpart H). Green-listed wastes are subject to basic controls for international commercial shipments. Amber- and Red-listed wastes require special notification to the destination and transit OECD member countries and also require extra information on tracking forms.

On May 21, 2002, OECD published a decision based upon that made revisions to the controls of transboundary movements of waste destined for recovery operations in order to harmonize procedures and requirements and to avoid duplicative activities with the Basel Convention. These revisions were made as a result of texts adopted by the Council at its June 14, 2001, and February 28, 2002, sessions. As part of these revisions, OECD incorporated the red list into the green and amber lists. EPA is considering changes to the existing regulations in Part 262, Subpart H, to address these revisions.

2.9 FARMERS

Part 262, Subpart E, contains a special provision for farmers managing waste pesticides. A farmer disposing of waste pesticides from his or her own use which are hazardous wastes is not required to comply with the standards in Part 262 or with the standards in Parts 264, 265, 268, or 270 for those wastes, provided he or she triple rinses the containers in accordance with §261.7(b)(3), and disposes of the pesticide residue and rinsate on his or her own farm in a manner consistent with the disposal instructions on the pesticide label. If the label does not contain disposal instructions, the farmer may not dispose of the pesticide or rinsate on his or her property and must comply with Subtitle C regulations for disposal (45 FR 12722, 12732; February 26, 1980).

3. SPECIAL ISSUES

A discussion of several complex generator topics can be found below.

3.1 ACTIVE MANAGEMENT

In some instances, a waste may have been disposed of prior to becoming subject to hazardous waste regulation (e.g., a waste disposed prior to the effective date of the original Subtitle C regulations). Regardless of when a waste was generated or when it was disposed, any waste that exhibits a characteristic of hazardous waste or meets a hazardous waste listing description is a RCRA Subtitle C hazardous waste; the determining factor is whether the waste is "actively managed" on or after the date that the waste becomes subject to hazardous waste regulation (57 FR 37194, 37298; August 18, 1992). The term active management means physically disturbing wastes within a waste management unit or disposing of additional hazardous waste in existing units containing previously disposed wastes (57 FR 37194, 37298; August 18, 1992). For example, an F001 waste that was disposed in 1950 became a hazardous waste as of November 19, 1980, the effective date of the F001 listing. However, the waste is not subject to hazardous waste regulation unless the waste is physically disturbed (e.g., exhumed). Once a person excavates the waste, he or she is considered the generator since his or her act first caused the waste to become subject to hazardous waste regulation (refer back to the definition of generator in §260.10), and is subject to all applicable Part 262 requirements. This also applies to farmers who exhume waste on their property (See Section 2.9). Note that excavation of contaminated soil during routine construction operations, such as pipeline installation, may not be considered active management if the soil is redeposited into the same excavated area. Site-specific situations should be discussed with the implementing agency.

3.2 CLOSURE STANDARDS

For each accumulation unit, generators must comply with certain disposal and decontamination requirements once they cease operating these units. These are known as closure requirements. LQGs must comply with the generic closure requirements in §§265.111(a) and (b) and 265.114, and the unit-specific closure requirements found in Part 265, Subpart I (containers), Subpart J (tanks), Subpart W (drip pads), and Subpart DD (containment buildings). The closure requirements include removing and decontaminating all contaminated equipment, structures, and soil to minimize the need for further maintenance and prevent post-closure escape of hazardous waste. There are no specific closure requirements for SQGs and CESQGs, except that SQGs are subject to special requirements for accumulating hazardous waste in tanks, including closure.

3.3 WASTE MINIMIZATION

One of the mandates of RCRA is to reduce or eliminate the generation of hazardous waste as expeditiously as possible (RCRA §1003(b)). Hazardous waste generators, when preparing a manifest, are required to certify that they have taken steps to minimize the amount of hazardous waste that they generate. LQGs must certify that they have "a program in place" to reduce the volume and toxicity of the hazardous waste they generate; SQGs must certify that they have made a good faith effort to minimize their waste generation. EPA outlined six basic elements that should be included in a waste minimization program in the May 28, 1993, Federal Register (58 FR 31114).

3.4 AIR EMISSION STANDARDS

Generators accumulating hazardous waste in tanks and containers may have to comply with requirements for controlling hazardous air emissions from these units. With the promulgation of the Subpart CC air emission standards (59 FR 62896; December 6, 1994) and amendments (61 FR 59932; November 25, 1996; and 62 FR 64636; December 8, 1997; and 64 FR 3382; January 21, 1999), LQGs must comply with all applicable air emission standards in Part 265, Subparts AA, BB, and CC. These regulations are discussed in detail in the module entitled Air Emissions.

3.5 STANDARDS FOR GENERATORS OF F006 WASTE

In order to promote legitimate recycling of metal-bearing electroplating sludges EPA promulgated less stringent regulations for generators of F006 waste (65 FR 12378; March 8, 2000). LQGs are allowed to accumulate F006 sludges up to 180 days (270 days if the waste must be shipped more than 200 miles) without a permit provided that they meet certain conditions. Specifically, LQGs must:

- recycle the F006 by metals recovery
- implement pollution prevention practices that reduce the amount of hazardous substances, pollutants and contaminants contained in the F006 waste prior to recycling
- accumulate no more than 20,000 kg of F006 on site at any one time
- comply with all of the management standards in §262.34(g).

4. REGULATORY DEVELOPMENTS

4.1 REVISIONS TO THE HAZARDOUS WASTE MANIFEST

On March 4, 2005, EPA announced modifications to the Uniform Hazardous Waste Manifest System (70 FR 10776). The revisions establish new manifest tracking procedures for certain hazardous waste shipments and revise the manifest and continuation sheet forms (Forms 8700-22 and 22a) used to track hazardous waste from a generator's site to the site of waste disposition. The revisions announced in the final rule will:

- standardize the content and appearance of the manifest form and continuation sheet (Forms 8700-22 and 22a)
- make the manifest form available from a greater number of sources
- adopt new procedures for tracking certain types of waste shipments with the manifest, including waste that a destination facility rejects, wastes consisting of residues from non-empty hazardous waste containers, and wastes entering or leaving the United States.

There will be an 18-month transition to the new form. During this 18-month periods, handler and states will only use the old form. They will continue to acquire the old forms from the sources they use now. After September 5, 2006, only the new manifest form and requirements established under this rule will be valid and acceptable for use.

Handlers will obtain new forms from any source that has registered with EPA to print and distribute the form. EPA will not distribute forms; rather, the Agency will oversee the printing requirements and ensure that registered printers follow them. EPA will maintain a list of entities that have been approved to print/distribute the form, so that the public may acquire the forms from one of the approved printers. Some large waste firms are expected to register to print their own forms so that they can use them wherever they do business, instead of having to buy the manifests from different States, as is the current practice. States may also register to print the new form, but State rules cannot establish the state as the exclusive source of the forms. A handler may use a manifest from any registered source.

The proposed revisions to the Uniform Hazardous Waste Manifest System included an option to complete, send, and store the manifest information electronically (66 FR 28240; May 22, 2001). However, EPA decided to separate the e-manifest from the form revisions portion of the final rulemaking. As a result, the March 4, 2005, rule finalizes only the manifest form revisions. Final action on the e-manifest will be based on the results of continuing analysis and outreach on several key rulemaking issues that are fundamental to the ultimate decision regarding whether EPA will adopt the e-manifest.

4.2 BURDEN REDUCTION INITIATIVE

On January 17, 2002, EPA proposed to reduce the recordkeeping and reporting burden imposed by RCRA on the states, the public, and the regulated community to meet the federal government-wide goal established by the Paperwork Reduction Act (PRA) (67 FR 2518). The PRA

establishes a federal government-wide goal of reducing burden 40 percent from the total burden imposed annually on September 30, 1995. If finalized, the Burden Reduction Initiative will reduce the reporting requirements for generators and TSDFs by eliminating or modifying non-essential paperwork.

EPA proposes to reduce the self-inspection frequency for hazardous waste tanks from daily to weekly and to eliminate the RCRA overlap with Occupational Safety and Health Administration (OSHA) training requirements. Additionally, EPA proposes to change the land disposal restrictions (LDR) paperwork requirements by eliminating the need for generators to conduct the waste determination required in §268.7(a)(1) and eliminating the need for treatment and recycling facilities to send notifications and certifications required in §268.7(b)(6) to EPA, provided the information is kept in facility records.

4.3 HAZARDOUS WASTE GENERATOR PROGRAM EVALUATION

On April 22, 2004, EPA published an advanced notice of proposed rulemaking (ANPRM) seeking information from stakeholders to evaluate the effectiveness of the RCRA hazardous waste generator regulatory program and identify areas for potential improvement (69 FR 21800). EPA, along with the states, will use the information to determine whether changes to the hazardous waste generator program are appropriate. If changes are necessary, EPA will develop and implement a strategy to improve program effectiveness, foster a pollution prevention stewardship philosophy, and reduce compliance cost where practicable. As part of this effort, EPA held a series of public meetings in the spring of 2004 to discuss possible changes to the hazardous waste generator program.

4.4 PERFORMANCE TRACK LARGE QUANTITY GENERATORS

On April 22, 2004, EPA published the National Environmental Performance Track Program final rule (69 FR 21737). This rule allows large quantity generators (LQGs) who are members of Performance Track to accumulate hazardous waste on site for up to 180 days, or up to 270 days in certain cases, without obtaining a RCRA permit or interim status (§262.34(j)). In order to qualify for the extended accumulation time, the generator must meet the requirements in §262.34(j), including but not limited to the following :

- notify EPA or the authorized state of their intent to store waste in excess of 90 days
- provide secondary containment for containers accumulating waste
- accumulate no more than 30,000 kg of hazardous waste at any one time
- submit an Annual Performance Report.

5. GENERATOR SUMMARY CHART

	CESQG	SQG	LQG
Quantity Limits	≤ ≤100 kg/month ≤≤ 1 kg/month of acute hazardous waste ≤≤ 100 kg/month of acute spill residue or soil §§261.5(a) and (e)	between 100-1,000 kg/month §262.34(d)	≥1000 kg/month > 1 kg/month of acute hazardous waste > 100 kg/month of acute spill residue or soil Part 262 and §261.5(e)
EPA ID Number	Not required §261.5	Required §262.12	Required §262.12
On-Site Accumulation Quantity	≤≤ 1,000 kg ≤ ≤1 kg acute ≤ ≤100 kg acute spill residue §§261.5(f)(2) and (g)(2)	≤ 6000 kg §262.34(d)(1)	No Limit
Accumulation Time Limits	None §261.5	≤180 days or ≤270 days (if > 200 miles) §§262.34(d) and (e)	≤90 days §262.34(a)
Storage Requirements	None §261.5	Basic requirements with technical standards for tanks or containers §§262.34(d)(2) and (3)	Full compliance for management of tanks, containers, drip pads, or containment buildings §262.34(a)
Off-site Management of Waste	State approved or RCRA permitted/interim status facility §§261.5(f)(3) and (g)(3)	RCRA permitted/interim status facility §262.20(b)	RCRA permitted/interim status facility §262.20(b)
Manifest	Not required §261.5	Required §262.20	Required §262.20
Biennial Report	Not required §261.5	Not required §262.44	Required §262.41
Personnel Training	Not required §261.5	Basic training required §262.34(d)(5)(iii)	Required §262.34(a)(4)
Contingency Plan	Not required 261.5	Basic plan §262.34(d)(5)(i)	Full plan required §262.34(a)(4)
Emergency Procedures	Not required §261.5	Required §262.34(d)(5)(iv)	Required §262.34(a)(4)
DOT Transport Requirements	Yes (if required by DOT)	Yes §§262.30-262.33	Yes §§262.30-262.33

The information in this document is not by any means a complete representation of EPA's regulations or policies, but is an introduction to the topic used for training purposes.

JUN 3, 1986

MEMORANDUM

SUBJECT: Request tar Comment on Memorandurn Concerning the Cleanup of Residues of Commercial Chemical Products Within a Warehouse Storage Area

FROM: Marcia E. Williams, Director
Office at Solid Waste

TO: David A. Wagoner, Director
Waste Management Division, Region VII

Attached is a draft response to your memorandum dated April 10, 1986, requesting a regulatory interpretation of the RCRA hazardous waste rules as they apply to residues of commercial chemical products that are cleaned up within a warehouse storage area. Due to the implications of this interpretation, I wanted you and the other Regional Division Directors to review and comment on our response. In particular, the draft memorandum specifies that any spills (including incidental spills) that occur at a warehouse of commercial chemical products that are listed in 40 CFR 261.33 or exhibit one or more at the hazardous waste characteristics are subject to regulation under RCRA, if they are not cleaned up immediately. The memo also indicates that enforcement action can be taken for treating, storing, or disposing of these hazardous waste without interim status or a permit. We have worked with the Office of General Counsel in preparing this response.

Please forward any comments you may have on our response to Matthew A. Straus as soon as possible, but no later than June 15, 1986.

Attachment

cc: Regional Division Directors (1-VI and VIII-X)
Lloyd Guerci (OWPE)
Mark Greenwood (OGC)

EXHIBIT
Item H 000443
6

Faxback 11161

MEMORANDUM

SUBJECT: RCRA Regulatory Interpretation Assistance Request - Cleanup of Residues of Commercial Storage Area

FROM: Marcia E. Williams
Director
Off ice of Solid Waste (WH-562)

TO: David A. Wagoner
Director
Waste Management Division, Region VII

You have requested guidance on whether EPA can require cleanup of commercial chemical product residues on the floor and structural members of a warehouse that is part of an interim status hazardous waste storage facility now undergoing closure. According to your memorandum, the warehouse was used to store commercial pesticides. You state that samples collected from the warehouse floor and structural supports showed 2, 4-D (D016), Aldrin (P004), Chlordane (0036), and Dieldrin (P037). Some samples contained Heptachlor (P059), Five of eight floor samples also showed 2,4,5-T (F027).

Although your memorandum does not describe the nature of the residues, it appears from your discussion that the residues resulted from spills of materials stored in the warehouse. Therefore, our analysis presumes that the materials were spilled.

1. Can EPA require cleanup of the pesticide residues if the presence of 2,4,5-T cannot be confirmed?

ANSWER: If you cannot confirm the presence of 2,4,5-T, you can still require the facility to clean up the residues of any compounds listed in §261.33(e) or (f), if you can show that the materials stored in the warehouse meet the requirements of §261.33(a)-(d).

Based on the facts in your letter, the residues in the warehouse do appear to qualify as solid wastes. A solid waste is defined in §261.2(a)(2) as, among other things, any material which is discarded by being abandoned. Section 261.2(b)(3) defines discarded material as, among other things, a material that is accumulated, stored or treated (but not recycled) before or in lieu of being disposed of, burned, or incinerated. The term "abandoned" is used in the sense of "thrown away." See 50 FR *627* (January *4, 1985).*

Your description suggests that the spilled materials have, been abandoned by accumulating them in the warehouse, rather than disposing of them elsewhere. It may also be argued that the materials have been abandoned by being disposed of (§261.2 (b) (1).

Whether these residues are also hazardous waste depends whether you have the facts to identify the materials that were originally stored in the warehouse. Section 261.33 provides that the materials listed in §261.33(a)-(d) are hazardous wastes when discarded or intended to be discarded. Materials listed in paragraphs (a) through (d) include commercial chemical products or manufacturing chemical intermediates (i.e., the pure grade of the chemical, any technical grade of the chemical, and formulations in which the chemical is the sole active ingredient), off specification products or intermediates; any container or inner liner used to hold such materials and any residue or other debris resulting from a spill of such materials on or into any land or water. You must show that the materials stored in the warehouse fit into one of these categories. If you cannot show that the products are listed under §261.33(e) or (f) (e.g., if the pesticides contained a combination of chemicals, rather than the pure chemicals), the residues would not be a hazardous waste under §261.33.

If the residues are a hazardous waste and were spilled after November 19, 1980, the requirements of Part 265 apply. See 40 CFR 265.1 (b). Under §265.1 (c) (11), treatment and containment of spills (except in immediate response to spills), must comply with applicable Part 265 requirements. Since it appears that this is not an immediate response situation, the facility would be subject to an enforcement action for treating, storing, or disposing of hazardous waste without interim status or a permit, and could be required to take appropriate action to clean up the residues */

2. If the residues are hazardous wastes, to what level can clean up be required?

ANSWER: Section 265.1 (c) (11) does not specify a level of cleanup for spills. You would, therefore, be free to require cleanup to a level which is appropriate. Options could include background or an end-point consistent with approved Agency numbers (e.g., MCLs).

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*/. If the residues are solid wastes that contain hazardous constituents, it might be possible to require cleanup under Section 3008 of RCRA, which authorizes EPA to order corrective action for releases of hazardous waste at interim status facilities. EPA has taken the position that this authority extends to releases of solid waste containing hazardous constituents.

3. How does the scope of regulatory authority change if the residues contain 2,4,5-T?

ANSWER: Unlike the materials listed in §261.33 (e) and (f), 2,4,5-T need not be a sole active ingredient formulation in order to be considered a hazardous waste. If the presence of 2,4,5-T is confirmed, residues would be acute hazardous wastes unless delisted, regardless of their source. If the 2,4,5-T is mixed with other solid wastes in the warehouse, the mixture would be an acute hazardous waste under §261.3 (a) (iii). In addition, these residues would be subject to the special management standards promulgated for dioxin-containing wastes. Furthermore, to the extent that the concentration of 2,4-D in the residues exceeds the maximum concentrations set out in Table 1 of §261.24 (EP toxicity), those residues would be hazardous wastes. Thus, even if you cannot meet the burden imposed by §261.33, some or all of the residues could still be considered hazardous wastes which would be subject to Part 265.

4. Would residues which are not subject to RCRA prior to cleanup become subject to RCRA after cleanup?

ANSWER: As noted above, the residues would be hazardous wastes if they met the requirements of §261.33 or were mixed with a listed hazardous waste. If the residues are hazardous wastes, residues from spills occurring after November 19, 1980 would be subject to Part 265 requirements both before and after cleanup. Spills that occurred prior to November 19, 1980 and have not been subject to further management activities since then could be considered disposed of, and would not be regulated by RCRA. However, if the owner or operator chose to clean such materials up, the spill cleanup materials would be subject to Part 265, which applies to treatment, storage, or disposal activities taken after November 8, 1980. See 40 CFR 265.1 (b).

If the residues do not meet the requirements of §261.33 or the mixture rule, they are not hazardous wastes either before or after cleanup.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION VII
726 MINNESOTA AVENUE
KANSAS CITY, KANSAS 66101

MEMORANDUM

SUBJECT: RCRA Regulatory Interpretation Assistance Request - Cleanup of Residues of Commercial Chemical Products Within a Warehouse Storage Area

FROM David A Wagoner
Director, Waste Management Division

TO: Marcia Williams, (WH-562)
Office of Program Management and Support

Issue

Please provide guidance as to whether EPA has regulatory authority to require cleanup of RCRA regulated commercial chemical product (pesticide) residues on the floor and structural members of a warehouse storage area of a building that is part of a hazardous waste storage facility.

Background

The facility, which is leased by Thompson-Hayward Chemical Company (THCC), had interim status. It is currently undergoing final closure for the storage of hazardous waste, i.e., spent solvents.

- On the facility property is a building that was used for the storage of numerous commercial pesticides.

- THCC which presently retains the environmental liabilities with respect to this leased property in Pleasant Hill, Iowa, has decided to terminate its lease.

- Analytical sampling, which consisted of using a 100 sq. centimeter hexane and filter paper wipe test, was done on the warehouse floor, and I-beam structural members. All the samples collected in the warehouse showed 2,4-D (D016), Aldrin (P004), Chlordane (U036), and Dieldrin (P037). Heptachlor (P059) was also common. Also, 2,4,5-T (F027) was found in five of eight samples taken on the floor. Typical floor contamination ranges were : 1) 1.5 mg to 18 mg/100 cm^2 for 2,4-D; 2) 0.13 mg to 15 mg/100 cm^2 for Aldrin; 3) 0.15 mg to 6.4 mg/100 cm^2 for Chlordane and 4) 3.6 mg to 22 mg/100 cm^2 for Dieldrin; 5) 0.26 mg to 3.6 mg/l00cm^2 for Heptachlor and 6) 0.03 mg to 3.2 mg/100 cm^2 for 2,4,5-T.

It appears from a review of 261.33(a) that we do not have the authority to address or require residue cleanup on the floor and structural members in a warehouse building that stored commercial chemical products (pesticides) where that building was not a regulated storage area at a RCRA facility.

However, if we are incorrect in our interpretation, your assistance is also requested on answering the following questions:

1. If the residue cleanup is regulated, to what level can we require cleanup?

2. If the presence of 2,4,5-I residues are confirmed by reanalysis, how does that change the scope of our regulatory authority?

3. If we do not have regulatory authority over the residues prior to cleanup$_1$ do we have regulatory authority over the residues once they are generated by the cleanup activity?

Time of Response

We would appreciate a prompt reply. If written response is not received May 16, 1986, we will assume you concur with our interpretation.

If there are any questions, please contact Luetta Flournoy, Chief, Iowa Section at FTS 757-2888.

Decisionmaking

Concurrence _____

Non-concurrence _____

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, DC 20460

August 3, 1983

MEMORANDUM

SUBJECT: Response to Region V's EPA ID Number Questions

FROM: Lee Daneker, Acting Deputy Director,
State Programs and Resource Recovery Division (WH-562)

TO: Art Kawatachi
Regional Project Officer, Region V

This responds to your May 8, 1983 memo regarding FINDS/RCRA ID number questions. It was prepared with help from Barbara Schick, who was then in the Office of Waste Programs Enforcement. I am sorry it took so long to reply, but several of the questions you raise are thorny.

Please note that the responses to questions 5 and 6 are proposals only; I want to check them with Dan Cirelli in MIDSD who is handling FINDS. The answer proposed for question 6 requires minor alterations to HWDMS, and I would like to receive comments from you and from the other Regions before asking MIDSD to implement those changes. A final answer to your question 8 requires more information from you.

Thank you for raising these issues. We will keep working to develop fully satisfactory answers to all the questions you have raised.

cc: Dan Cirelli (MIDSD)
Connie Drew (MIDSD)
HWDMS RPO's and DBA's



FAXBACK# 11028

Q6. We would like to assign an ID number and track non-notifiers who handle hazardous waste. We have initiated enforcement actions against these installations, but do riot have notification forms (EPA Form 8700-12) to establish an ID) number and track compliance.

A. I will request MIDSD and the people handling FINDS to establish a new code – the letter "N" – under data element C219 to identify RCRA non-notifies being tracked in HWDMS. Note that, where RCRA is the only applicable EPA program, C219 cannot be left blank or the system will not recognize the facility as sufficiently identified.

Region V's suggestion to use the inspection form to establish a hard copy notification file sounds fine.

Q7 How can we track, and States get credit for, inspecting a non-notifier who turns out not to handle hazardous waste? The above situation would originate, for example, as a result of a citizen's complaint where the State conducts a thorough inspection of an installation and concludes it is not an RCRA regulated operation.

A. Same answer as for question 6. If inspection results show a facility is not RCRA regulated, use the new code "N" in C219 and code the entry as non-regulated (C303).

Q8. We would like to archive in HWDMS for future reference the ID number information from sources which no longer or never required use of their ID numbers such as protective filers and duplicate numbers.

A. The role HWDMS will play as an historical record is still under discussion. It would be helpful if the Regions could more fully spell out their needs or anticipated problems in this area.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

NOVEMBER 21, 1983

MEMORANDUM

SUBJECT: Further Clarification of EPA I.D. Numbers for Universities

FROM: Lee Daneker
Acting Deputy Director
State Program and Resource Recovery Division (WH-563)

TO: RCRA Project Officers, Regions I - X

The attached response to an ID number question was prepared by the RCRA/CERCLA Hotline staff. It addresses an often asked question concerning the assignment of EPA I.D. numbers to colleges and universities. The philosophy behind this answer may also be applied to corporate situations.

Attachments

cc: Constance Drew
HWDMS Database Administrators (via Constance Drew)
Dan Cirelli

FAXBACK# 11028

IV. RESOLUTION OF ISSUES

Many colleges and universities have asked for clarification on the issue of filing for generator I.D. numbers and the determination of eligibility for status as a small quantity generator. Most of these institutions would like to file for only one EPA I.D. number for the many buildings situated on their campus in order to maintain a single "administrative umbrella" over their several individual points of generation (e.g., laboratories, central chemical storage areas, maintenance shops, power plants, etc.). The physical layout of many campuses tends to confuse the issue of how many notification forms to file. Some campuses, especially those located in metropolitan areas, may be divided by public roads and this further complicates the determination of their generator status. Can universities consider themselves as one generation site in order to spread their "administrative umbrella" over their entire campus?

RESOLUTION: Several basic configurations exist for college campuses. The rural or suburban campus might have several buildings on one contiguous piece of property. This would be considered a single or individual generation site even though one or more hazardous wastes are generated from one or more sources. One EPA I.D. number would be assigned and small quantity generator status would be determined by looking at the total hazardous waste generated or accumulated on the site.

Many university campuses are divided by public roads or other rights-of-way which they do not control. Metropolitan campuses are frequently constructed on a number of adjoining city blocks where the various campus buildings are separated by city streets but the buildings may be connected by tunnels or overhead walkways. Even in these cases each generation site (i.e., each city clock or each half of a campus bisected by a public road) would be a generator (or SQG) and assigned its own EPA I.D. number.

Hazardous wastes being shipped from one campus building (i.e., generator) to another building (i.e., TSDF) where the sites are divided by a highway would need a manifest while on the highway. The one exception is when the waste is shipped directly across the road. In this case the receiving building is considered "on-site", as defined in 40CFR 260.10 even though they are required to have separate EPA I.D. numbers. (NOTE: The definition of "on-site" is intended to be used only in determining whether or not a generator should initiate a manifest. It does not define two buildings owned and/or operated by the same person but divided by a highway as one generation site). The Agency's philosophy is to identify each shipment of hazardous waste as being from a specific location. The EPA needs to identify who is responsible for the waste (i.e., who created the waste, determined it to be hazardous and is liable for its proper management). This may cause some or all of the waste from a university to be subject to the reduced requirements of the small quantity generator. The Agency is contemplating lowering the small quantity generator exclusion limit which should then capture these wastes.

SOURCE: Lee Daneker and Rolf P. Hill
RESEARCH: Tony Baney

EPA530-R-04-003a

RCRA, SUPERFUND & EPCRA CALL CENTER MONTHLY REPORT

January 2004

2. Amount of Waste Generated per Month Determines Generator Status

An individual generates 75 kg of non-acutely hazardous waste each month from January to November. Instead of shipping this waste off site for disposal, the generator accumulates the waste on site in containers. In December, the generator produces an additional 75 kg of non-acutely hazardous waste and hires a transporter to ship a total of 900 kg off site for treatment and disposal. Is this generator subject to the conditionally exempt small quantity generator (CESQG) requirements or the small quantity generator (SQG) regulations during the month of December?

This generator is subject to the CESQG regulations during the month of December because it generated no more than 100 kg of non-acutely hazardous waste in that month and accumulated no more than 1,000 kg of non-acutely hazardous waste on site at any one time (40 CFR §261.5). Generator status is based upon the amount of waste generated per calendar month and the total amount accumulated on site at any one time. The amount of waste shipped off site at any one time does not affect generator status, provided the waste is shipped off site prior to exceeding accumulation limits. If the generator accumulates more than a total of 1,000 kg of hazardous waste on site at any one time, then it would be subject to all provisions applicable to SQGs, including the §262.34(d) accumulation standards.

In addition, this individual can generate 1 kg or less of acutely hazardous waste per calendar month and remain subject to the reduced CESQG regulations for the acutely hazardous waste, provided that no more than 1 kg of acutely hazardous waste is accumulated on site at any one time. If the amount generated or accumulated on site exceeds these thresholds, then all of the acutely hazardous waste would be subject to full regulation as applicable to large quantity generators (§261.5(e)).

Item H 000455
EXHIBIT
tabbies
8

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460
OFFICE OF SOLID WASTE

OFFICE OF WATER
AND WASTE MANAGEMENT

MAY 20, 1981

Tim T. Ellis, PhD.
Director of Hazardous Materials Handling
CATALYST TECHNOLOGY INCORPORATED
4414 Old LaGrange Road
Post Office Box 115
Buckner, Kentucky 40010

Dear Dr. Ellis:

Gary Dietrich has asked me to respond to your letter of December 12, 1980. I apologize for the delay in this response; the Agency has been overwhelmed with requests for regulatory interpretations and other demands.

First, I wish to confirm as correct your understanding of the duties and responsibilities of an on-site contractor cleaning storage tanks, as stated in paragraph 2 of your letter. As a party which removes hazardous waste from a tank, vehicle, vessel or manufacturing process unit, thereby subjecting the waste to RCRA regulation, CAT-TECH falls within the definition of a "generator" 40 CFR §260.10 (a) (26), and may be held jointly and severally liable for compliance with the regulations. As you note, however, EPA will ordinarily look to the owner or operator of the facility to perform the generator's duties. See 45 Fed. Reg. 72026-7.

Secondly, thank you for your suggestion that tank cleaners be allowed to obtain a single identification number for each combination of a branch location and an EPA region in which work is performed. We have received this suggestion from a number of sources. We expect to change the requirements for identification numbers, either by a technical amendment to the regulations or by proposing a new regulation, during the summer of 1981.

In the interim, if I can be of further assistance, please let me know.

Sincerely yours,

Alfred W. Lindsey
Deputy Director
Hazardous and Industrial Waste Division (WH-565)

FaxBack# 11013



cc: Scott Biehl

December 12, 1980

U.S. ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON
D.C. 20460

ATTENTION: Mr. Gary N. Dietrich
Associate Deputy Asst. Administrator
WS Rm. 2710

Dear Gary:

It has been a pleasure to talk with you on the phone (November 7 and 18, 1980) and in person November 13, 1980) about the hazardous wastes handling services offered by CATALYST TECHNOLOGY, INC., and their relationship to the regulations promulgated by the Environmental Protection Agency under the Resource Recovery and Conservation Act of 1976. As a follow-up to our communication, this letter will 1) summarize CAT-TECH's overall philosophy in providing hazardous wastes handling services, 2) present for your comment CAT-TECH's understanding of the duties, responsibilities and liabilities of the on-site contractor cleaning storage tanks and/or of the generator of the hazardous wastes which may first be subject to regulation during these tank cleaning operations, and 3) offer comments and proposed changes in the Federal Hazardous Waste Management regulations promulgated under RCRA, which require site-specified EPA ?? for generators.

1) Since being formed in 1973, CATALYST TECHNOLOGY, INC., has striven continuously to provide the best available catalyst handling services to the refining and petrochemical industries. Extensive experience in confined space entry under inert atmospheres and in development of materials handling equipment and techniques, provides a strong foundation for CAT-TECH's participation in handling HW/HM. From the beginning, personal safety has been held in highest regard. Training includes in-depth classroom and field (on-the-job) sessions in first aid, CPR and CAT-TECH's life support system. Environmental suits, designed specifically for CAT-TECH, are currently being developed.

Recognizing that the subject of HW/HM management is very sensitive to the public as well as to the industries generating them, CAT-TECH operations are performed, without exception, in full compliance with all Federal, state, and local agencies which regulate these activities.

2) Your written comments are requested following interpretations based on Supplemental Information: Amendment to 40 CFR 261.4, Fed. Reg. 72024 - 82028 (Oct. 30, 1980) and on our conversation in your office the afternoon of November 13, 1980.

A company which "causes a hazardous waste to become subject to regulation" by performing the service of cleaning a tank containing that HW is "jointly and severally liable as (a) generator" of that HW. Dependent upon the specific conditions of HW generation, either the owner of the waste or the operator of the tank facility, not the service company which removes the HW is recommended by EPA to assume the full duties and responsibilities of being the generator of the waste. These responsibilities consist of two distinct types: 1) complying with the RCRAct and with the regulations promulgated under it by the EPA and 2) meeting acceptable environmental standards, as based on Case Decisions - Common Law of Nuisance. All parties involved in HW management, generator (HW owner, storage facility operator, tank cleaner), laboratory analysis firm (which provided waste characterization), transporter, and TSD, may be subject to enforcement action based on failure to comply with either responsibility.

If the tank cleaning service company assumes the full responsibilities of generator, it will be required to perform all duties listed below:

1. Perform analysis to determine that the waste is hazardous or declare it so based on knowledge about its production (this may be done by using analysis either provided and certified by the HW owner or by having a certified analysis of a representative sample from a professional laboratory.)
2. Obtain an EPA ID#
3. Select appropriate containers and label them properly for shipment.
4. Prepare a hazardous waste manifest.
5. Assure, through the manifest system, that the waste arrives at the designated TSD facility.
6. Submit annual reports of HW activities.
7. Keep all records at least three years.

Provided that the tank cleaning service company completes the duties listed above, it would not assume any increased liabilities (beyond being "jointly and severally liable"). Transferal of the generator role to the tank cleaning service company in no way relieves the owner of the HW from the responsibilities mentioned above and the liabilities resulting from the their non-compliance.

It is suggested that evidence of practices and intents of compliance with all hazardous waste management regulations would be considered favorably, especially in the event of a "minor paperwork" violation. For example, the business practices of each transporter or TSD facility would be checked thoroughly including documented visits to their operations.

We have attempted to define in paragraph 2 our understanding of the responsibilities and liabilities we may incur in the handling of HW. If the above comments are not correct, please notify us; otherwise, we will continue our operations on this basis.

3) Comment on Supplemental Information: Amendment to 40 CFR 261.4, Fed. Reg. pg. 72027 (Oct. 30, 1980).

This amendment indicates that "if the person who removes hazardous wastes from tanks or units performs the generator duties, he must have a separate EPA Identification Number for each site at which he performs these duties." It is suggested that this policy causes delays in the HW handling and requires additional paperwork and recordkeeping beyond that necessary to fulfill the intent of EPA's role in efficient HW management.

The services performed by transporters and by emergency spill response teams (in most cases the latter are both generators and transporters) require notification and assignment of EPA ID#s. However, notification is only required for the headquarters and/or branch facilities of these organizations, not "by-site". A parallel appears to exist between these services and those provided by a company which removes HW from tanks and who performs the generator duties associated with these operations.

The following proposal is submitted for your consideration: Companies engaged in cleaning tanks containing HW should obtain a single EPA ID# for each combination of a branch location and an EPA region in which work is performed. For example, a sales office/branch location may be located in NJ and conduct operations in both PA and NJ. Therefore, two ID#s would be required, one for Region II and one for Region III, both located at the same installation address. In this way, time and paperwork spent in securing separate EPA ID#s "by-site" would be
eliminated, yet all appropriate reporting and recordkeeping information would be forwarded to the appropriate EPA region, that in which the work was performed.

Thank you for receiving me on November 13 and in advance for considering the comments presented herein. We will look forward to your reply.

Sincerely yours,

CATALIST TECHNOLOGY, INCORPORATED

Tim T. Ellis, PhD.
Director of Hazardous Materials Handling

TTE:pak

cc: Charles W. Dobbins

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

MARCH 1 2 1997

Mr. Rick J. Melchiori
Progressive Technologies, Inc.
4050 Westmark Drive
Dubuque, IA 52002

Dear Mr. Melchiori:

Thank you for your letter of November 11, 1996, requesting an interpretation of how the RCRA regulations apply to waste generated from the removal of paint from painted surfaces using a surface preparation product developed by Progressive Technologies. You described your product to members of my staff in a meeting held in November, 1996.

Based on information provided to my staff, your product, PreTox 2000, is applied to the painted surface and allowed to cure. During the curing process the paint adheres to the PreTox 2000. The coating consisting of a combination of paint and PreTox 2000 is removed using standard coating removal methods. As you may know, the Agency does not endorse or support specific processes. It can, however, respond to your request for an interpretation on the general paint removal process, and the waste generated from your removal process.

In general, hazardous waste regulations apply to materials which first have been determined to be a solid waste. A solid waste is a hazardous waste if it is listed as a hazardous waste in Subpart D of 40 CFR, Part 261, or if it exhibits a characteristic of hazardous waste as identified in Subpart C of 40 CFR, part 261. A generator may also use knowledge of the process to determine whether the waste generated is hazardous. In the case of lead abatement debris, the waste determination required under 40 CFR 262.11 would be made once the paint has been removed from the surface of the structure. The paint removal process itself is not subject to regulation in this circumstance. Assuming that no other characteristic hazardous constituents are present in the waste, and that the waste does not exhibit the characteristics of ignitability, reactivity, or corrosivity, the TCLP waste analysis for lead would be sufficient to determine if the waste exhibits the toxicity characteristic.

You indicated that the debris generated from the paint removal process using PreTox 2000 have passed TCLP tests and therefore do not meet the definition of a hazardous waste. EPA, however, cannot determine whether a waste stream, such as paint removal debris containing PreTox 2000, is generally exempt from the toxicity characteristic. Each user of the PreTox 2000 product will be responsible for determining whether his or her paint removal debris exhibits the toxicity characteristic, although test data you collect could be of assistance to the users.

Furthermore, please note that wastes must continue to "pass" the TCLP test until the time of disposal to escape hazardous waste regulation. In other words, if a batch of paint removal debris

tabbies EXHIBIT 10

"passes" the test at the time it is initially tested, but is later retested and found to exhibit the characteristic, it becomes regulated hazardous waste. Also, please be aware that generators may be held liable under CERCLA for any environmental damages caused by the release of a hazardous material into the environment. CERCLA liability is independent of any hazardous waste determination that may be made.

Also note that for purposes of hazardous waste generation, the term "generator" may refer to both the paint abatement contractor and to the owner of a building or a superstructure and they are considered "co-generators" of the waste. Additionally, state requirements may be more stringent that the federal requirements for hazardous wastes and you should contact the state or states in which you intend to conduct lead paint abatement activities to determine whether additional requirements apply.

I hope this information is helpful. Should you have additional questions, please contact Ann Codrington or Rajani Joglekar of my staff at (703) 308-8825 or (703) 308-8806, respectively.

Sincerely,

Elizabeth Cotsworth, Acting Director
Office of Solid Waste

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

AUGUST 10, 1995

Mr. Nick Chirigos
Industrial Painters Coalition
P.O. Box 19300
Philadelphia, PA 19143

Dear Mr. Chirigos:

Thank you for your letter of July 14, 1995, requesting a determination as to the generator status of contractors who remove lead-based paint. In your letter, you stated that to the best of your knowledge "the owner of the structure is deemed to be the "generator" through their action in specifying the removal of lead-containing coating systems." You mentioned that you met with Brion Cook, of EPA's Office of Prevention, Pesticides, and Toxic Substances (OPPTS), who suggested that you contact OSW for an official interpretation on the issue. We will try to clarify the status of contractors removing lead based-paint in this letter.

To address accountability for lead-based paint, we refer you to the definition of a generator found in 40 CFR §260.10. A generator is defined as "any person, by site, whose action or process produces hazardous waste identified or listed in [40 CFR part 261] or whose act first causes a hazardous waste to become subject to regulation." In a lead abatement scenario, a property owner and an abatement contractor are both considered generators of the waste as both parties contribute to the generation of the waste. The contractor is considered a generator because he is the person whose act first causes a hazardous waste to become subject to regulation.

The Agency has stated in preamble language at 45 FR 72026 Oct.30, 1980, which addresses generators of hazardous waste that is generated in manufacturing process units or in product or raw material storage tanks, transport vehicles, or vessels, that

> The definition of generator…also fits the person removing the hazardous waste from a manufacturing process unit or a product or raw material storage tank, transport vehicle or vessel. Although often it is not his "act or process" that produces the hazardous waste, it is his act that causes the hazardous waste to become subject to regulation…

Although the above preamble discussion specifically refers to manufacturing process units, product or raw material storage tanks, transport vehicles, or vessels, we believe that this discussion also applies in many other cases where waste is generated by more than one party, including the lead abatement scenario.



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The Agency has stated that when more than one party plays a role in the generation of a hazardous waste at a site, each party is "jointly and severally liable as generators." Id. In this case, the Agency expects that the parties involved will mutually agree to have one party perform the generator duties. While EPA will normally look to the party who fulfills generator duties, "EPA reserves the right to enforce against any and all persons who fit the definition of "generator" in a particular case if the requirements of Part 262 are not adequately met, providing such enforcement is equitable and in the public interest." (emphasis added) Id.

Finally, please be aware that states may impose requirements which may be more stringent than federal requirements. If you have further questions on this matter, please contact Ann Codrington of my staff at (202) 260-8551.

Sincerely,

Michael Petruska, Chief
Regulatory Development Branch

cc: Kate Donaldson

federal register

Wednesday
November 19, 1980

Part III

Environmental Protection Agency

Hazardous Waste Management System: Mining and Cement Kiln Wastes Exemptions; Small Quantity Generator Standards; Generator Waste Accumulation Amendment; Hazardous Waste Spill Response Exemption, and Clarification of Interim Status Requirements

Item H 060468

EXHIBIT
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12

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 261

[SWH-FRL 1675-1]

Identification and Listing of Hazardous Waste

AGENCY: Environmental Protection Agency.

ACTION: Interim final amendment to rule with request for comments.

SUMMARY: This regulation amends the hazardous waste regulations (40 CFR § 261.4(b)) to exclude from regulation under Subtitle C of the Resource Conservation and Recovery Act (1) solid waste from the extraction, beneficiation and processing of ores and minerals (including coal), including phosphate rock and overburden from the mining of uranium ore and (2) cement kiln dust wastes. This action is being taken to bring the regulation into conformance with Section 7 of the recently enacted Solid Waste Disposal Act Amendments of 1980. The Agency, for the time being, is interpreting the scope of these exclusions broadly but is unsure that this interpretation is consistent with the intent of the Congress. Therefore, over the next 90 days, it intends to carefully examine the legislative history of the statutory amendment and consider the public comments being solicited by this action. Based on this review, the Agency, in subsequent rulemaking action, may further narrow the exclusion being promulgated today.

DATE: Effective Date: November 19, 1980.

Comment Date: This amendment is promulgated as an interim final rule. The Agency will accept comments on it until January 19, 1981.

ADDRESSES: Comments on the amendment should be sent to Docket Clerk (Docket No. 3001), Office of Solid Waste (WH-565), U.S. Environmental Protection Agency, 401 M Street SW., Washington, D.C. 20460.

FOR FURTHER INFORMATION CONTACT: For general information, contact Alfred W. Lindsey, Office of Solid Waste, U.S. Environmental Protection Agency, 401 M Street SW., Washington, D.C. 20460, (202) 755-9185. For information on implementation, contact:

Region I, Dennis Huebner, Chief, Radiation, Waste Management Branch, John F. Kennedy Building, Boston, Massachusetts 02203, (617) 223-5777

Region II, Dr. Ernest Regna, Chief, Solid Waste Branch, 26 Federal Plaza, New York, New York 10007, (212) 264-0504/5

Region III, Robert L. Allen, Chief, Hazardous Materials Branch, 6th and Walnut Streets, Philadelphia, Pennsylvania 19106, (215) 597-0980

Region IV, James Scarbrough, Chief, Residuals Management Branch, 345 Courtland Street NE., Atlanta, Georgia 30365, (404) 881-3016

Region V, Karl J. Klepitsch, Jr., Chief, Waste Management Branch, 230 South Dearborn Street, Chicago, Illinois 60604, (312) 886-6148

Region VI, R. Stan Jorgensen, Acting Chief, Solid Waste Branch, 1201 Elm Street, First International Building, Dallas, Texas 75270, (214) 787-2645

Region VII, Robert L. Morby, Chief, Hazardous Materials Branch, 324 E. 11th Street, Kansas City, Missouri 64106, (816) 374-3307

Region VIII, Lawrence P. Gazda, Chief, Waste Management Branch, 1860 Lincoln Street, Denver, Colorado 80203, (303) 837-2221

Region IX, Arnold R. Den, Chief, Hazardous Materials Branch, 215 Fremont Street, San Francisco, California 94105, (415) 556-4606

Region X, Kenneth D. Feigner, Chief, Waste Management Branch, 1200 Sixth Avenue, Seattle, Washington 98101, (206) 442-1260

SUPPLEMENTARY INFORMATION:

I. Reason and Basis for Today's Amendments

On May 19, 1980, EPA promulgated regulations implementing Subtitle C of the Resource Conservation and Recovery Act (RCRA). See 45 FR 33066-33588. These regulations define solid wastes and hazardous wastes and establish requirements applicable to generators, transporters, treaters, storers and disposers of hazardous wastes. These regulations also require owners and operators of hazardous waste treatment, storage and disposal facilities to obtain RCRA permits.

The definition of solid waste is provided in § 261.2 of these regulations. The definition of hazardous waste is provided in § 261.3 of these regulations. Both definitions are sufficiently broad to include many solid wastes generated in the extraction, beneficiation and processing of ores and minerals, exclusive of mining overburden returned to the mine site (see § 261.4(b)(3).) Specifically, eight mining and mineral processing wastes (EPA hazardous waste Nos. FO13-FO15 and KO64-KO68) were listed as hazardous wastes in §§ 261.31 and 261.32 of the May 19 regulations (see 45 FR 33123-33124). In addition, other mining and mineral processing wastes may be hazardous wastes because they exhibit one or more of the characteristics of hazardous wastes in Subpart C of Part 261. By virtue of these definitions, a number of mining and mineral processing wastes will be subject to the regulations on November 19, 1980, the effective date of the regulations.

Additionally, some cement kiln dust waste could be hazardous waste under the regulations, if it exhibits any of the characteristics of hazardous waste in Subpart C of Part 261. Thus, some cement kiln dust waste may be subject to the regulations on and after November 19, 1980.

In Section 7 of the recently enacted Solid Waste Disposal Act Amendments of 1980 (P.L. 94-482, October 21, 1980), the Congress amended Section 3001 of RCRA to prohibit EPA from regulating certain wastes under Subtitle C of RCRA until after completion of certain studies and certain rulemaking. Among these wastes are (1) "solid waste from the extraction, beneficiation and processing of ores and minerals, including phosphate rock and overburden from the mining of uranium ore" and (2) "cement kiln dust waste." Accordingly EPA is today amending its regulations, at § 261.4, to incorporate this statutory change.

Several trade associations, representing the mining and cement industries, have asked EPA to amend its regulations by November 19, 1980, the effective date of these regulations, to incorporate the 1980 amendments concerning these wastes. In addition these associations have sought a clarification of the scope of the exclusion, particularly regarding the types of mining operations that are excluded. The statutory exclusion of mining wastes in Section 3001(b)(3) is limited to "solid waste from the extraction, beneficiation and processing of ores and minerals." One mining trade association has argued that this exclusion covers wastes from the exploration, mining, milling, smelting and refining of ores and minerals (including coal.)

In the interest of providing the mining and cement industries clear guidance on whether they are subject to the regulations, EPA is amending the regulations before the November 19 date. At the same time EPA questions whether the Section 3001(b)(3) was to be interpreted as broadly as the trade associations suggest. To resolve these questions, the Agency will have to examine carefully the legislative history and consult with the mining and cement industries and the public. The Agency could not accomplish this by November 19, 1980, given the extremely large workload with which it is burdened in developing the Phase II regulations, in responding to other requests for regulatory amendments and interpretations, and in responding to petitions for judicial review of the regulations.

Consequently, the Agency has decided to provide an immediate but temporary accommodation of the requests on this matter by promulgating today interim final amendments to § 261.4(b) which provide the requested exclusion using the language of the statutory amendments. Until the Agency takes further rulemaking action on this matter, it will interpret the language of today's amendments, with respect to the mining and mineral processing waste exclusion, to include solid waste from the exploration, mining, milling, smelting and refining of ores and minerals.

This exclusion does not, however, apply to solid wastes, such as spent solvents, pesticide wastes, and discarded commercial chemical products, that are not uniquely associated with these mining and allied processing operations, or cement kiln operations. Therefore, should either industry generate any of these non-indigenous wastes and the waste is identified or listed as hazardous under Part 261 of the regulations, the waste is hazardous and must be managed in conformance with the Subtitle C regulations.

II. Intended Reconsideration of Today's Amendments

The Agency fully intends to consider the appropriate scope of the statutory exclusion and may well take rulemaking action to lessen the scope of the exclusion being promulgated today. To aid in this consideration, the Agency is soliciting public comments on this matter. In particular EPA questions whether Congress intended to exclude (1) wastes generated in the smelting, refining and other processing of ores and minerals that are further removed from the mining and beneficiation of such ores and minerals, (2) wastes generated during exploration for mineral deposits and (3) wastewater treatment and air emission control sludges generated by the mining and mineral processing industry. EPA specifically seeks comment on whether such wastes should be part of the exclusion. EPA also seeks comment on how it might distinguish between excluded and non-excluded solid wastes.

If EPA narrows the scope of the exclusion being promulgated today in future rulemaking, those who generate, transport, store, treat or dispose of wastes affected by such a change will have six months to prepare for compliance with the regulations. This six month delay in the effective date is provided under authority of Section 3010(b) of RCRA.

In addition to the consideration of the scope of the exclusion discussed above, the Agency will be considering regulatory amendments to implement other provisions of Section 3001(b)(3). Section 3001(b)(3)(B) recognizes EPA authority to issue regulations under Section 2002 of RCRA to place requirements on owners and operators of disposal sites for excluded wastes. These requirements concern identification and recording of information on the location of disposal sites as well as on the composition of the wastes that are disposed. EPA also invites public comment on how it should formulate such requirements.

III. Effect of Today's Amendments

Today's amendments relieve persons who generate or manage hazardous wastes produced in, and unique to, the exploration, mining, milling, smelting or refining of ores or minerals and persons who generate or manage a cement kiln dust waste from having to comply with EPA's regulations under Subtitle C of RCRA with respect to these wastes. Owners and operators of existing treatment, storage and disposal facilities do not have to submit a Part A, RCRA permit application by November 19, 1980, or comply with the interim status standards of Part 265 after November 19, 1980, with respect to such wastes. Also, owners and operators of new facilities for the treatment, storage or disposal of the subject wastes will not have to apply for and obtain a RCRA permit before constructing or operating such facilities.

Today's action does not relieve persons who generate or manage those wastes herein discussed from compliance with other Federal and State regulations including State regulations designed to implement Subtitle D of RCRA and State regulations being implemented in lieu of the Federal Subtitle C regulations where the State has interim or full authorization under Section 3006 of RCRA.

IV. Relationship to Final Listing of Certain Hazardous Waste in §§ 261.31 and 261.32

On November 12, 1980, in a separate rulemaking action (see 45 FR 74884), the Agency has finalized the list of most of the hazardous wastes listed in §§ 261.31 and 261.32. Included in this action was finalization of seven of the mining and mineral processing wastes mentioned above (EPA hazardous waste nos. F014–15 and K064–68). One of the wastes previously mentioned (F013) was deleted from the list of hazardous waste (§ 261.31) in that separate action. Because of the Agency's uncertainty with respect to the scope of the statutory amendments, as discussed above, it has gone ahead with the finalization of the aforementioned listed wastes. Notwithstanding, the effect of today's action is to suspend those final listings of hazardous wastes, unless and until the Agency reduces the scope of today's exclusion in subsequent rulemaking action.

V. Coal Mining Waste

The Solid Waste Disposal Act Amendments of 1980 also included special provisions (Sections 1006(c) and 3005(f)) designed to coordinate regulation of coal mining waste with the requirements of the Surface Mining Control and Reclamation Act, 30 U.S.C. § 1201 *et seq.* EPA believes that these provisions present problems of legal interpretation which cannot be resolved by November 19, 1980. The Agency may seek public comment on its interpretation of those provisions in later rulemaking actions. This interim final rule does not attempt to interpret the scope of Sections 1006(c) and 3005(f). However, since coal is arguably a "mineral or ore" under Section 3001(b)(3), wastes from the extraction, beneficiation and processing of coal are excluded from RCRA Subtitle C regulation in today's amendment to § 261.4(b). Until EPA has had an opportunity to analyze the intended scope of the exclusion, the terms "extraction, beneficiation and processing" will be interpreted broadly to include coal exploration, mining, cleaning, classification, and other processing activities. As with other elements of this exclusion, EPA will be examining this exclusion, particularly the exclusions for classification, and other processing activities, in more detail later and may decide to narrow its scope.

VI. Effective Date

Section 3010(b) of RCRA provides that EPA's hazardous waste regulations and revisions thereto take effect six months after their promulgation. The purpose of this requirement is to allow persons handling hazardous wastes sufficient lead time to prepare to comply with major new regulatory requirements. The amendments promulgated today, however, serve to put in regulatory form what is already stated in statute. To establish a deferred effective date would only serve to confuse the regulated community. Consequently, the Agency is establishing an immediate effective date for this amendment.

VII. Request for Comments

The Agency invites comments on these amendments and on the issues discussed in this preamble and,

therefore, is providing a 60-day comment period.

Dated: November 14, 1980.

Douglas M. Costle,

Administrator.

Title 40 of the Code of Federal Regulations is amended by adding the following paragraphs to § 261.4(b):

§ 261.4 [Amended]

* * * * *

(b) * * *

(6) Solid waste from the extraction, beneficiation and processing of ores and minerals (including coal), including phosphate rock and overburden from the mining of uranium ore.

(7) Cement kiln dust waste.

These amendments are issued under the authority of Sections 1006, 2002(a) and 3001 of the Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act of 1976 (RCRA), as amended, 42 U.S.C. 6905, 6912(a) and 6921.

[FR Doc. 80-33129 Filed 11-18-80; 8:45 am]

BILLING CODE 6560-30-M

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40 CFR Parts 261 and 262

[SWH-FRL 1675-3]

Hazardous Waste Management System: Identification and Listing of Hazardous Waste Standards for Generators of Hazardous Waste

AGENCY: Environmental Protection Agency.

ACTION: Interim final rules and request for comments.

SUMMARY: In regulations promulgated in May, 1980, establishing a federal program for the management of hazardous wastes, EPA excluded from full regulation persons handling hazardous wastes generated in small quantities (40 CFR 261.5, 45 FR 33066, 33120 (May 19, 1980)). This amendment clarifies the operation of the special requirements for hazardous waste generated by small quantity generators. Part 262 of the regulations has also been amended to ensure that these generators determine whether their wastes are hazardous.

DATE: Effective Date: November 19, 1980.

Comment Date: EPA will accept public comments on this regulation until January 19, 1981.

ADDRESSES: Comments on this regulation should be sent to the Docket Clerk [Docket Number 3001], Office of Solid Waste (WH-562), U.S. Environmental Protection Agency, 401 M Street, S.W., Washington, D.C. 20460.

The public docket for this regulation is located in Room 2711, U.S. Environmental Protection Agency, 401 M Street, S.W., Washington, D.C. and is available for viewing from 9 a.m. to 4 p.m. Monday through Friday, excluding holidays. Among other items, the docket contains the background document for this regulation which has been revised to accommodate these amendments.

FOR FURTHER INFORMATION CONTACT: Robert Holloway, Office of Solid Waste, U.S. Environmental Protection Agency, 401 M Street, S.W., Washington, D.C. 20460, (202) 755-9200.

SUPPLEMENTARY INFORMATION:

I. Introduction

Pursuant to Subtitle C of the Resource Conservation and Recovery Act of 1976, as amended ("RCRA"), 42 U.S.C. § 6901 *et seq.*, EPA recently promulgated regulations establishing a comprehensive regulatory program for the management and control of hazardous wastes (45 FR 33066 (May 19, 1980)). The regulations, among other things, identify the characteristics of hazardous wastes, list particular wastes as hazardous, and establish standards for generators and transporters of hazardous waste and owners and operators of hazardous waste management facilities.

The regulations also define special requirements for hazardous waste generated by generators who produce less than 1,000 kilograms of hazardous waste during a calendar month. (See 40 CFR 261.5, 45 FR 33120). Hazardous waste generated by a small quantity generator is generally excluded from full regulation provided the generator stores, treats, or disposes of his hazardous waste in facilities specified as acceptable or ensures that his hazardous waste is delivered to such facilities. However, if a small quantity generator generates or accumulates acutely hazardous waste in quantities greater than specified, or if he accumulates more than a total of 1,000 kilograms of hazardous waste at any time, all quantities of hazardous wastes for which an exclusion level is exceeded are fully regulated.

Since the publication of the regulation, members of the regulated community have raised a number of questions concerning the operation of the small quantity exclusion. EPA has been persuaded that, in certain respects, the regulation is ambiguous and does not clearly address certain situations. In addition, the regulation contains certain technical errors which would cause the exclusion to operate in a manner not intended by the Agency or contrary to the manner explained in the preamble to the regulation and the supporting materials. This amendment to the regulation is intended to clarify the original regulation and to correct the errors contained in it.

The revisions to the small quantity generator exclusion principally concern five aspects of the regulation: the determination of who is a small quantity generator; the requirements applicable to hazardous waste accumulated on-site; the requirements applicable to acutely hazardous wastes; the conditions applicable to wastes excluded from full regulation; and the requirements applicable to mixtures. The changes to the regulation are described in this preamble. The underlying rationale and basis for § 261.5 remain unchanged and are set forth in the preamble to the May regulation. (See 45 FR at 33102-33105.)

The background document supporting the requirements for small quantity generators has been revised to explain in greater detail the operation of § 261.5. In addition to describing the changes made by today's amendments, the background document provides guidance on the operation of regulations applicable to the small quantity generator.

It should be noted that the Agency has received a petition from the National Solid Waste Management Association ("NSWMA") which requests the Agency to make substantive revisions to § 261.5. EPA has noticed and requested comments on the petition. (45 68409 (October 15, 1980).) The amendment to § 261.5 published today does not constitute the Agency's response to the NSWMA petition. EPA's action with regard to that petition will be the subject to further notice and/or rulemaking.

II. Amendments to the Regulation

A. *Determination of Small Quantity Generator Status.*

Section 261.5(a) of the May regulation set forth the general test for determining who may qualify as a small quantity generator:

> * * * if a person generates, in a calendar month, a total of less than 1,000 kilograms of hazardous wastes, those wastes are not subject to regulation * * *.

Since publication of the regulation, persons have raised two questions basic to the operation of this section: (a) should the section be keyed to generators rather than persons; and (b) what wastes should be counted in determining the amount of waste generated in a calendar month? The regulation has been revised to resolve both of these questions.

Although it was EPA's intent to key the exclusion levels established in § 261.5 to individual generation sites, the May 19, 1980 regulation refers to "persons" rather than "generators". As these terms are defined in § 260.10 of this Chapter, a corporation (i.e., a person) may comprise numerous facilities that generate hazardous waste, (i.e., generators). Read literally, therefore, § 261.5 makes the Subtitle C regulations and the notification requirements of Section 3010 of RCRA fully applicable to a company which generates, in the aggregate, more than the quantity exclusion level but each of whose facilities generates less than that amount. The revised regulation replaces the prior reference to "persons" with "generators," making it clear that individual facilities which generate hazardous waste in a quantity below the exclusion levels may qualify as small quantity generators.

To provide further clarification, the amended regulation defines a small quantity generator as a generator who generates less than 1000 kilograms of hazardous waste in a calendar month. Thus, this amended regulation makes clear that a generator may be a small quantity generator in one month and a large quantity generator in another month. The recordkeeping and reporting requirements of Part 262 apply, however, only to those periods in which the generator's hazardous waste is subject to full regulation under Part 262. Thus, for example, the annual report of a generator whose waste is subject to full regulation under Part 262 for three months in a year would cover the generator's activity only for those three months.

The second issue resolved by the amended regulation concerns which hazardous wastes should be counted in determining whether a generator generates 1000 kilograms of hazardous waste in a calendar month. One question is how the exclusion of hazardous wastes that are used, re-used, recycled or reclaimed under § 261.6 relates to the § 261.5 requirements. Another set of questions focuses on the potential double-counting of wastes by a generator who removes waste from on-site storage or whose on-site treatment of wastes generates hazardous waste.

The small quantity generator requirements have been revised by the addition of a new paragraph, § 261.5(c), to clarify which hazardous wastes that are being used, re-used, recycled or reclaimed are included in determining small generator status. Section 261.6(a) excludes from regulation wastes that are hazardous because they meet EPA characteristics and that are beneficially used or re-used or legitimately recycled or reclaimed. Wastes that are excluded under § 261.6(a) are not included in the quantity determination of § 261.5. Section 261.6(b), however, makes sludges, listed hazardous wastes, and hazardous wastes containing listed hazardous wastes subject to full regulation during storage and transportation prior to their use, re-use, recycling or reclamation. Because these wastes are subject to Subtitle C regulation, the revised § 261.5 makes clear that these wastes must be included in the quantity determination and are subject to the other requirements of that section. Although this is a result that a careful reading of the May regulation would support, the revised § 261.5 should resolve any ambiguity on this issue.

A number of persons stated that use of the word "generates" in § 261.5 creates some uncertainty about what wastes should be counted in determining eligibility for small quantity generator status. These commenters believed that, without clarification, the rule might lead to double-counting of wastes when they are also treated or stored on-site. If, for example, a generator's manufacturing process generated 600 kilograms of hazardous waste in a month, and he placed that waste in storage, persons were uncertain whether, when that waste was removed from storage, the 600 kilograms was to be counted again in the quantity determination. Counting this quantity a second time would have the effect of substantially lowering the exclusion levels. A new paragraph, § 261.5(d), has been added to make it clear that a generator counts his hazardous waste only when he first generates it. He is not required to count the waste again when he removes it from on-site accumulation or storage [1] or when he produces a hazardous waste from the on-site treatment of his hazardous waste. The amendment is intended to avoid double-counting of wastes and therefore extends only to the on-site treatment or storage of hazardous wastes generated by the small quantity generator. If the generator receives hazardous waste from another person for treatment, the hazardous waste generated by the treatment process must be counted in the generator's quantity determination.

B. *Requirements Applicable to Hazardous Waste Accumulated On-site.*

Section 261.5(b) of the May regulation states that if a generator accumulates more than 1000 kilograms of hazardous waste, these wastes are subject to full Subtitle C regulation. Acutely hazardous wastes, when accumulated, are subject to the lower exclusion limits specified in § 261.5(c) of the May 19, 1980, regulation. After the publication of the regulation, persons questioned how the regulation would apply: whether the generator would be able to use the provisions of § 262.34 allowing on-site storage without a permit for 90 days prior to shipment of the wastes to treatment, storage or disposal facilities; and, if so, how the provisions of that section apply to small quantity generators.

A new paragraph, § 261.5(f), clarifies the manner in which hazardous wastes are regulated when the accumulation limit is exceeded. Because the regulation allows indefinite and unregulated storage of wastes in quantities less than 1000 kilograms, the Agency believes it unreasonable to make this 90 day period start at the time the waste was first generated. Such a result would place generators who exceed the accumulation levels but whose accumulation began more than 90 days prior to exceeding the 1000 kilogram level immediately in violation of the regulatory requirements by storing wastes without a permit or without interim status under Section 3005(e) of RCRA. The revised § 261.5(f) states that at the time the allowable accumulation limit is exceeded, the waste becomes fully regulated and § 262.34 becomes applicable. Section 262.34 provides the generator 90 days to remove the waste from on-site storage without the necessity of having either a permit or interim status for that storage. To take advantage of § 262.34, however, the generator must satisfy the conditions of that section. This will ensure that the generator handles the waste in a satisfactory manner while providing him some time to arrange for proper treatment, storage or disposal.

The revised regulation also clarifies that once the accumulated amounts exceed 1000 kilograms, all of those wastes and those subsequently added to that accumulation are fully regulated until all the waste is sent to a hazardous waste treatment, storage or disposal facility. This rule means that those wastes remain subject to full regulation even if the quantity of wastes accumulated or stored becomes less than 1000 kilograms. In addition, those wastes remain fully regulated regardless of when the wastes are removed from storage or accumulation and regardless of whether the generator is a small

[1] Under the definition of generation, removal from storage is not an act or process that produces a hazardous waste, although it is an act which may subject a waste to regulation. The Agency intends to publish regulations on this subject in the near future.

quantity generator in the month they are removed from storage. Certain persons thought that only the amount exceeding 1000 kilograms was subject to regulation. This position was not, however, supported by the language in the May regulation which stated that, if a person accumulates more than 1000 kilograms, "those accumulated wastes" would be subject to full regulation. The revised language should resolve any ambiguity that may have been created by the original language. The provisions for acutely hazardous waste apply similarly.

C. *Requirements Applicable to Acutely Hazardous Waste.*

Section 261.5(c) of the May regulation sets lower exclusion levels for acutely hazardous discarded chemical products, their off-specification variants, containers and inner liners that held these wastes, and residue and debris resulting from spills of these wastes. The revised regulation, § 261.5(e), clarifies two ambiguities in the regulation: (a) whether the exclusion levels apply to the total amount of acutely hazardous waste generated and (b) whether the exclusion levels apply only to small quantity generators.

With respect to the first question, the language of the regulation has been revised to state that the exclusion levels apply to the aggregate of all of the acutely hazardous wastes subject to a particular exclusion. Thus, if a generator discards in a calendar month 0.5 kilograms of one commerical chemical product listed in § 262.33(e) and 0.5 kilogram each of two other listed commercial chemical products, the total 1.5 kilograms of acutely hazardous wastes would be subject to full Subtitle C regulation. The exclusion thus applies to acutely hazardous wastes in the same manner as it applies to other hazardous wastes. The rationale for aggregating wastes to determine the amount of wastes generated applies with equal force to acutely hazardous waste as to other hazardous waste. The need for full regulatory control of these wastes is the same whether the total is comprised of one listed substance or three such substances.

Second, the regulation is revised to clarify that the lower exclusion levels for acutely hazardous waste apply only to generators who otherwise are deemed small quantity generators. The Agency believes that a generator who produces more than 1000 kilograms of hazardous waste a month and is therefore subject to full regulation should handle his acutely hazardous wastes in the same manner as his other wastes. The basis for the exclusion levels is the administrative impossibility of EPA regulating all generators of hazardous waste. If a generator is subject to regulation on the basis of generating more than 1000 kilograms of hazardous waste, there is no reason to exclude from regulation his small quantities of those wastes which the Agency has identified as acutely hazardous. There will be no additional drain in the administrative demands placed on the Agency and the protection of human health and the environment will be significantly increased.

A final change to § 261.5 has been made with respect to acutely hazardous wastes. Section 261.5(c) of the May regulation established exclusion levels for containers and inner liners that held acutely hazardous waste. A new section, 261.7, has been added to the regulations under separate rulemaking that excludes "empty" containers from regulation. If a container or inner liner that has held acutely hazardous waste is empty, it is not subject to regulation and not subject to the exclusion levels set in § 261.5. The residues of acutely hazardous waste in nonempty containers or inner liners are subject to the exclusion levels of § 261.5(g) and the requirements of the section. The reference to containers and inner liners that appeared in § 261.5(c) of the May regulations is deleted.

D. *Conditions Applicable to Waste Excluded from Full Regulation.*

Section 261.5(d) of the May regulation specified the facilities in which hazardous waste excluded from full regulation could be managed. The Agency inadvertently omitted facilities that beneficially use or re-use, or legitimately recycle or reclaim waste from the list of acceptable facilities. The Congressional policy of promoting resource recovery, as implemented by the Subtitle C regulatory program in § 261.6, would not be served by denying to small quantity generators the sama opportunity to use, re-use, recyle or reclaim their waste which is provided to other generators. Accordingly, the regulation is revised to allow small quantity generators to treat or dispose of their waste in such facilities. The regulation is also redesignated § 261.5(g).

Section 261.5(g) has also been revised to state that hazardous waste must be stored on-site in accordance with § 261.5(f). This latter paragraph, as described above, covers the accumulation and storage of wastes on-site. This revision merely reiterates that storing or accumulating wastes on-site under § 261.5(f) is allowed.

Today's amendments make one additional technical correction to the May regulations. Section 261.5(d) required generators, as a condition of the exclusion from full regulation, to determine under § 262.11 whether their wastes were hazardous. Section 262.11(a), however, stated that, if a generator determined that he was subject only to § 261.5, he did not have to determine whether his waste was hazardous. The Agency has corrected this inconsistency by deleting the reference to § 261.5 in § 262.11. The generator of solid waste must determine whether his waste is hazardous before determining whether his waste is conditionally excluded under § 261.5 from full regulation. Without such a determination the generator of hazardous wastes would not know whether any of the Subtitle C requirements, including the reduced requirements, apply to the waste nor whether, if the exclusion levels were exceeded, the full requirements would apply.

E. *Requirements Applicable to Mixtures.*

Section 261.5(e) of the May regulation established a special mixture provision for hazardous wastes which were excluded from full regulation by § 261.5. This provision is redesignated as § 261.5(h) and has not been revised.

A new paragraph, § 261.5(i), is added to make clear that mixtures of solid waste and hazardous wastes which have exceeded an exclusion level are subject to full Subtitle C regulation. Pursuant to § 261.3(a)(3)(ii), a mixture of solid waste and hazardous wastes is a hazardous waste. Members of the regulated community have asked what exclusion level applies to the mixture; for example, whether a mixture containing an acutely hazardous waste that has exceeded an exclusion level remains subject to the lowar exclusion levels applicable to that waste. This new paragraph clarifies that the lower exclusion level applies. A contrary result would encourage generators to mix acutely hazardous wastes subject to full regulation (i.e., because they are generated or accumulated in quantities greater than one kilogram) with other hazardous excluded wastes (e.g., those generated in quantities of less than 1000 kilograms a month) and thus escape the regulatory controls which the Agency has determined are essential for the safe handling and management of hazardous wastes.

III. Effective Date

Section 3010(b) of RCRA provides that EPA's hazardous waste regulations and revisions thereto take effect six months after their promulgation. The purpose of this requirement is to allow persons handling hazardous wastes sufficient

lead time to prepare to comply with major new regulatory requirements. For the amendment to § 261.5 promulgated today, however, the Agency believes that an effective date six months after promulgation would cause substantial and unnecessary disruption in the implementation of the regulations and would be contrary to the interests of the regulated community and the public. The amended regulation is an integral part of a regulatory program that becomes effective on November 19, 1980. In addition, the principal revisions to the regulation simply clarify and make technical corrections to the regulation. The revisions also allow greater flexibility in the manner in which small quantity generators handle their hazardous waste.

The Agency believes it makes little sense to allow the small quantity generator requirements promulgated on May 19, 1980, to become effective on November 19, 1980, and then to have them substantially revised on a subsequent date by this amendment. Clarification of regulatory requirements and increasing their flexibility are not the types of regulation revision that Congress had in mind when it provided a six month delay between the promulgation and the effective date of revisions to regulations. Consequently, the Agency is setting an effective date of November 19, 1980, for the amendments to §§ 261.5 and 262.11 promulgated in this rulemaking action.

IV. Promulgation in Interim Final Form

These amendments to § 261.5 are designed principally to clarify the manner in which the regulations published in May of 1980 are to operate. EPA has received many questions on the regulation. These questions indicated that there is substantial confusion on the part of the regulated community about the exclusion of generators of small quantities of hazardous waste. Absent immediate effectuation of these clarifying amendments, EPA believes that this confusion will persist after the effective date of the Subtitle C regulations, November 19, 1980. This confusion will lead, EPA believes, to real and substantial hardship for persons subject to the reduced requirements of § 261.5. If uncertain about the rule's application or operation, many responsible generators of hazardous waste may unnecessarily comply with the full Subtitle C regulations. Immediate implementation of the amendment small quantity generator requirements is necessary in order to avoid inadvertantly imposing substantial burdens on literally thousands of generators who are uncertain whether they are excluded from full regulation under § 261.5. Given the real and substantial cost that delay might create, the Agency finds good cause to promulgate these rules without prior notice and opportunity for comment.

V. Request for Comments

The Agency invites comments on all aspects of these amendments to the regulations and on all issues discussed in this preamble. EPA is hopeful that the regulations as revised are reasonable, understandable, and workable. The Agency will be receptive to comments which would improve the regulation.

VI. Regulatory Impacts

The effect of these amendments is to reduce the overall costs, economic impact and reporting and recordkeeping impacts of EPA's hazardous waste management regulations. This is achieved by clarifying the operation of the regulations and increasing their flexibility. The Agency is unable to estimate these reductions.

Dated: November 14, 1980.

Douglas M. Costle,

Administrator.

Title 40 of the Code of Federal Regulations is amended as follows:

1. Section 261.5 is revised to read as follows:

§ 261.5 Special requirements for hazardous waste generated by small quantity generators.

(a) A generator is a small quantity generator in a calendar month if he generates less than 1000 kilograms of hazardous waste in that month.

(b) Except for those wastes identified in paragraphs (e) and (f) of this section, a small quantity generator's hazardous wastes are not subject to regulation under Parts 262 through 265 and Parts 122 and 124 of this chapter, and the notification requirements of Section 3010 of RCRA, provided the generator complies with the requirements of paragraph (g) of this section.

(c) Hazardous waste that is beneficially used or re-used or legitimately recycled or reclaimed and that is excluded from regulation by § 261.6(a) is not included in the quantity determinations of this section, and is not subject to any requirements of this section. Hazardous waste that is subject to the special requirements of § 261.6(b) is included in the quantity determinations of this section and is subject to the requirements of this section.

(d) In determining the quantity of hazardous waste he generates, a generator need not include:

(1) His hazardous waste when it is removed from on-site storage; or

(2) Hazardous waste produced by on-site treatment of his hazardous waste.

(e) If a small quantity generator generates acutely hazardous waste in a calendar month in quantities greater than set forth below, all quantities of that acutely hazardous waste are subject to regulation under Parts 262 through 265 and Parts 122 and 124 of this chapter, and the notification requirements of Section 3010 of RCRA:

(1) A total of one kilogram of a commercial chemical products and manufacturing chemical intermediates having the generic names listed in § 261.33(e), and off-specification commercial chemical products and manufacturing chemical intermediates which, if they met specifications, would have the generic names listed in § 261.33(e); or

(2) A total of 100 kilograms of any residue or contaminated soil, water or other debris resulting from the clean-up of a spill, into or on any land or water, of any commercial chemical products or manufacturing chemical intermediates having the generic names listed in § 261.33(e).

(f) A small quantity generator may accumulate hazardous waste on-site. If he accumulates at any time more than a total of 1000 kilograms of his hazardous waste, or his acutely hazardous wastes in quantities greater than set forth in paragraphs (e)(1) or (e)(2) of this section, all of those accumulated wastes for which the accumulation limit was exceeded are subject to regulation under Parts 262 through 265 and Parts 122 and 124 of this chapter, and the notification requirements of Section 3010 of RCRA. The time period of § 262.34 for accumulation of wastes on-site begins for a small quantity generator when the accumulated wastes exceed the applicable exclusion level.

(g) In order for hazardous waste generated by a small quantity generator to be excluded from full regulation under this section, the generator must:

(1) Comply with § 262.11 of this chapter;

(2) If he stores his hazardous waste on-site, store it in compliance with the requirements of paragraph (f) of this section; and

(3) Either treat or dispose of his hazardous waste in an on-site facility, or ensure delivery to an off-site storage, treatment or disposal facility, either of which is:

(i) Permitted under Part 122 of this chapter;

(ii) In interim status under Parts 122 and 265 of this chapter;

(iii) Authorized to manage hazardous waste by a State with a hazardous waste management program approved under Part 123 of this chapter;

(iv) Permitted, licensed or registered by a State to manage municipal or industrial solid waste; or

(v) A facility which:

(A) Beneficially uses or re-uses, or legitimately recycles or reclaims his waste; or

(B) Treats his waste prior to beneficial use or re-use, or legitimate recycling or reclamation.

(h) Hazardous waste subject to the reduced requirements of this section may be mixed with non-hazardous waste and remain subject to these reduced requirements even though the resultant mixture exceeds the quantity limitations identified in this section, unless the mixture meets any of the characteristics of hazardous wastes identified in Subpart C.

(i) If a small quantity generator mixes a solid waste with a hazardous waste that exceeds a quantity exclusion level of this section, the mixture is subject to full regulation.

2. Section 262.11(a) is revised to read as follows:

§ 262.11 Hazardous waste determination.

(a) He should first determine if the waste is excluded from regulation under 40 CFR 261.4.

* * * * *

These amendments are issued under the authority of Sections 1006, 2002(a) and 3002 of the Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act of 1976 (RCRA), as amended, 42 U.S.C. 6905, 6912(a), and 6922.

[FR Doc. 80-36130 Filed 11-18-80; 8:45 am]
BILLING CODE 6560-30-M

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40 CFR Part 262

[SWH-FRC 1675-4]

Hazardous Waste Management System; Standards Applicable to Generators of Hazardous Waste

AGENCY: Environmental Protection Agency.

ACTION: Interim final rule and request for comments.

SUMMARY: In regulations promulgated in May, 1980, establishing a federal program for the management of hazardous wastes, EPA placed requirements on generators of hazardous waste that accumulated their waste on the site of generation prior to shipment to off-site hazardous waste management facilities [40 CFR § 262.34, 45 FR 33066, 33143 (May 19, 1980)]. One of these requirements was that a generator ship all accumulated waste off-site in 90 days or less. This amendment eliminates the distinction between accumulation for on-site and off-site treatment, storage or disposal, provided that, within 90 days, the waste is sent to a hazardous waste management facility that is either permitted or in interim status. The other requirements of § 262.34 are not changed by this rule.

DATES: Effective Date: This requirement is effective on November 19, 1980. Comment date: Comments are due January 19, 1981.

ADDRESSES: Comments should be addressed to the Docket Clerk (Docket 3002), Office of Solid Waste (WH-562), U.S. Environmental Protection Agency, 401 M Street SW., Washington, D.C. 20460.

FOR FURTHER INFORMATION CONTACT: Rolf Hill, Office of Solid Waste, (WH-563), U.S. Environmental Protection Agency, 401 M Street SW., Washington, D.C. 20460, (202) 755-9145.

SUPPLEMENTARY INFORMATION:

I. Introduction

In regulations promulgated in February and May, 1980, EPA established standards applicable to generators of hazardous waste. 40 CFR Part 262, 45 FR 12722 (February 26, 1980), 45 FR 33140 (May 19, 1980). These standards, among other things, require generators to initiate a manifest to track the movement of hazardous waste, maintain records, and provide proper containers, labels and placards for the transportation of hazardous waste. Most of these requirements apply only to generators who send their hazardous wastes off the site of generation for treatment, storage or disposal. Some of these requirements, however, apply to generators who treat, store or dispose of their wastes on the site of generation. (See 40 CFR 262.10(b)).

Recognizing that many generators would accumulate hazardous waste for a period of time prior to shipping the waste to an off-site hazardous waste management facility, EPA set special requirements in § 262.34 which, if met by the generator, would allow him to accumulate the waste on-site without having to obtain a RCRA permit for a storage facility under Part 122 of the regulations or comply with the applicable standards under Parts 264 and 265 of the regulations.

The basis and rationale for these special 90-day accumulation rules appear in the preambles to, and the background documents supporting, the generator regulations first published in Feburary, 1980, and then revised in May, 1980. See 45 FR 12722, 12730 (February 26, 1980) and 45 FR 33140, 33141 (May 19, 1980). By allowing short-term accumulation without a permit, the regulation reflects the congressional intent that the RCRA program not interfere with the manufacturing process. See H.R. Rep. No. 94-1491, 94th Cong. 2d Sess. 26 (Sept. 9, 1976). Generation of hazardous waste necessarily requires some accumulation of that waste prior to taking it to a hazardous waste management facility. On the basis of information received in the comment period, the Agency selected ninety days as a period that provided sufficient time for such accumulation to occur in all reasonable situations.

Holding hazardous waste for a short period, however, entails many of the same risks to human health and environment as long-term storage, and therefore the Agency imposed specific requirements for short-term accumulation. The special requirements of § 262.34 require the generator to (1) ship the wastes off-site within 90 days; (2) place the waste in containers or tanks meeting specified technical standards; (3) mark the date accumulation began on the container or tank; (4) properly label and mark the containers; and, (5) comply with the Part 265 regulations concerning preparedness and prevention, contingency plans and emergency procedures. These requirements are designed to ensure that short-term accumulation of hazardous wastes will be done in a manner that ensures protection of human health and the environment.

Since the publication of the regulations, members of the regulated community have raised two questions that are basic to the application and operation of this regulation. First, these persons have stated that the distinction between accumulation of hazardous waste prior to off-site shipment and accumulation prior to on-site treatment, storage or disposal is arbitrary and that the 90-day accumulation provision should apply to both types of accumulation. Second, these persons have stated that although the special 90-day accumulation requirements of § 262.34 may be appropriate for the more centralized areas and facilities where hazardous wastes are accumulated prior to off-site transport or ultimate on-site disposition, they are more stringent than necessary for the accumulation and very short-term storage of wastes at areas where the wastes are generated and initially

accumulated—often in small containers—prior to movement to the more centralized on-site accumulation and storage areas.

The amendment being promulgated today responds to the first of these concerns. For reasons discussed below, however, EPA believes that more information is necessary prior to ascertaining the need for amending the regulations to respond to the second concern.

II. On-site Accumulation Prior to On-site Treatment, Storage or Disposal

The effect of the current regulations is to allow one class of generators (i.e., those who ship their wastes off-site) to "accumulate" their waste for up to 90-days without having a permit or interim status and to require all other generators (i.e., those who treat, store and dispose of the wastes on-site) to obtain a RCRA permit or interim status for the same activity. The standards applicable to both classes, however, are similar. Generators who accumulate waste on-site under § 262.34 would have to store their wastes in compliance with virtually all of the technical requirements of Part 265 and also satisfy many of the general requirements of that Part, e.g., prepare contingency plans and emergency procedures. The principal difference the Agency had discerned between these two classes of generators that was that the areas used for accumulation by the generator who performed such activities on-site would be included in their permit covering the other on-site treatment, storage and disposal facilities. In addition, certain provisions of the Part 265 regulations apply to the accumulation areas of generators who manage their wastes on-site; these include security, financial responsibility, closure and post-closure requirements.

EPA now believes, however, that the regulations as currently written impose substantially different requirements for generators who ship their wastes off-site as opposed to those who do not. These differences do not appear warranted. The most important of these differences concerns eligibility for interim status if short-term accumulation is considered storage for generators who treat, store or dispose of their wastes on-site. To obtain interim status a storage facility must be "in existence" on November 19, 1980. Section 3005(e), 42 U.S.C. § 6925(e) as amended by the Solid Waste Disposal Act Amendments of 1980, P.L. 96-482 (October 21, 1980). A generator who sends his wastes off-site would be able to construct a new loading dock or storage shed for short-term accumulation; a generator who does not send his wastes off-site could not construct a new loading dock (i.e., a new storage facility) without obtaining a RCRA permit. Second, although applying for a permit for these accumulation areas may not entail significant increased burden, the terms and conditions of the permit could impose requirements beyond those required for generators who ship their wastes off-site. In addition, other differences between on-site accumulation and on-site storage may emerge as the regulations are interpreted and applied.

EPA believes that there is no basis for the distinction and accordingly has amended the requirement of § 262.34(a)(1) that accumulated wastes be shipped off-site within 90 days. The requirements of § 262.34 are designed to ensure protection of human health and the environment during short-term accumulation. The destination of the waste does not change the protection that this rule ensures. Section 262.34 requires that wastes that are accumulated on-site still must, within 90 days, go to treatment, storage or disposal facilities which are permitted or in interim status. The regulation now provides that such facilities may be on-site as well as off-site; the manner of regulation and the degree of environmental control is the same for these facilities.

The selection of a 90-day period in the original rule reflected the maximum accumulation time that the Agency thought was necessary prior to transporting wastes off-site. The generator does not wholly control the timing of the transportation because arrangements have to be made with the transporter and the hazardous waste management facility. The situation is obviously different if the generator is sending his waste to a treatment, storage or disposal facility located on the site of generation. In this situation, the generator has greater control over the handling of the waste and the timing of its shipment. The Agency solicits information on whether given this difference whether a shorter period, say 30 days, should be provided for generators who subsequently send their wastes to an on-site treatment, storage or disposal facility.

III. Application of Requirements to All Accumulation Areas

In promulgating the regulations establishing the requirements for on-site accumulation, EPA assumed that accumulation generally would occur in discrete areas in the manufacturing complex where wastes would be held prior to shipment to a treatment, storage or disposal facility. Technical standards for tanks or containers, the preparation of contingency plans and similar requirements are appropriate for loading docks, storage buildings and sheds, and other areas in a manufacturing complex where hazardous wastes are collected and accumulated.

Members of the regulated community, however, have pointed out that, within a manufacturing complex, there may be dozens of places where hazardous wastes are collected during daily operations prior to taking a container containing hazardous waste to the loading dock or other accumulation area. These commenters have questioned the appropriateness of applying the requirements of § 262.34 to each place where hazardous wastes may be initially collected.

EPA believes, however, that the requirments of § 262.34 are appropriate for both centralized and satellite accumulation areas. The Agency, however, is soliciting information on whether, in some situations, different requirements should govern these accumulation activities.

Whether at satellite or centralized accumulation areas, the hazardous waste requires proper management in order to minimize the threat to human health and the environment. The requirements of § 262.34 are designed to provide such protection. Containers that meet DOT specifications and tanks that meet Part 265 design and operating requirements appear necessary and appropriate for the accumulation of hazardous waste regardless of whether the accumulation occurs at a centralized facility or in different places within a plant. The other requirements of § 262.34 similarly appear appropriate to all accumulation activities on the site of generation; these include marking and labeling containers; weekly inspections of containers; locating of containers holding ignitable and reactive wastes away from the property line; requirements concerning preparedness and prevention, contingency plans and emergency response and personnel training. The protection that these requirements ensure appear appropriate and necessary wherever hazardous wastes are accumulated.

The Agency recognizes that there may be certain situations in which the requirements of § 262.34 might not work well for the initial collection and accumulation of hazardous waste. For example, the Agency does not expect a company to engage in major reconstruction of a facility simply to be able to fit a DOT container beneath a hard-to-reach leaky pipe. The Agency does, however, want to ensure that all

hazardous waste, once generated, are safely and properly handled. The Agency requests comments on situations in which the requirements of § 262.34 may be inappropriate and on the manner in which EPA should handle such situations.

IV. Effective Date

Section 3010(b) of RCRA provides that EPA's hazardous waste regulations and revisions thereto take effect six months after their promulgation. The purpose of this requirement is to allow persons handling hazardous wastes sufficient lead time to prepare to comply with major new regulatory requirements. For the amendments to § 262.34 promulgated today, however, the Agency believes that an effective date six months after promulgation would cause substantial and unnecessary disruption in the implementation of the regulations and would be contrary to the interests of the regulated community and the public. The regulatory provision that this amendment modifies takes effect on November 19, 1980. In the absence of the immediate effectuation of this amendment, generators who accumulate wastes for on-site treatment, storage or disposal must prepare to operate these facilities as fully regulated hazardous waste storage facilities on and after November 19, 1980. This would include preparation and submission of a Part A permit application covering the accumulation area.

The Agency believes it makes little sense to allow the requirements promulgated on May 19, 1980, to become effective on November 19, 1980, and then have them substantially modified on a subsequent date, i.e., the six-month effective date for these amendments. Leasing of regulatory requirements is not the type of revision to regulations for which Congress intended a six-month delay occur between its promulgation and effective date. Consequently, the Agency is setting an effective date of November 19, 1980, for the amendment to § 262.34 promulgated in this rulemaking action.

V. Interim Final Promulgation

This regulation is being promulgated in interim final form. The reasons for taking this exceptional procedure are similar to those supporting the immediate effective date. The delay involved in initiating normal rulemaking would cause substantial hardship on generators who treat, store or dispose of their hazardous wastes on-site. During the pendency of rulemaking, these generators would not be able to construct new accumulation areas in their manufacturing facilities without obtaining a RCRA permit. Because such areas are intimately tied to the manufacturing process itself, such a delay might in effect create a prohibition of redesign and reconstruction of these manufacturing units.

Although the Agency does not adopt this procedure lightly, the circumstances indicate that the use of interim final promulgation is appropriate. As one court has noted "[i]t is an appropriate safety valve to be used where delay would do real harm." *U.S. Steel Corp.* v. *EPA*, 595 F.2d 207, 214 (5th Cir., 1979). EPA believes that the effect of delaying promulgation of this amendment would cause substantial, and unnecessary, hardship on a large number of manufacturing operations. In this situation, the use of advance notice and comment procedures would be contrary to the public interest and therefore good cause exists for adopting this amendment in interim final form. See 5 U.S.C. § 553(b)(B).

VII. Request for Comments

The Agency invites comments on all aspects of this amendment to the regulation and on all the issues discussed in this preamble. The Agency has recently requested comments of one aspect of § 262.34, its applicability to product storage tanks. 45 CFR 72024 (October 30, 1980). The Agency will consider all comments received on § 262.34 prior to promulgating this rule in final form. EPA desires to formulate sound and sensible regulations concerning the proper handling of hazardous waste. The requirements of § 262.34 are an important aspect of this broader concern, and, if commenters have suggestions on ways to improve this regulation, the Agency would be receptive to their suggestions.

VIII. Regulatory Impacts

The effect of this amendment is to reduce the overall costs, economic impact and reporting and recordkeeping impacts of EPA's hazardous waste management regulations. This is achieved by removing accumulation areas of generators who send accumulated wastes to on-site disposal facilities from full regulation as storage facilities. The Agency is unable to estimate these cost and impact reductions because it does not have an estimate of the number of such areas that otherwise would be fully regulated. For the reasons already discussed, notwithstanding these cost and impact reductions, the Agency believes that human health and environmental protection will not be reduced by this action.

Dated: November 14, 1980.

Douglas M. Costle,

Administrator.

Title 40 of the Code of Federal Regulations is amended as follows:

§ 262.34 [Amended]

1. In § 262.34, paragraph (a)(1) is revised to read as follows.

(a) A generator may accumulate hazardous waste on-site without a permit or without having interim status, provided that:

(1) All such waste is, within 90 days, shipped off-site to a designated facility or placed in an on-site facility that is permitted under Part 122 of this Chapter, has interim status under Parts 122 of this Chapter, or is authorized to manage hazardous waste by a State with a hazardous waste management program approved under Part 123 of this Chapter.

* * * * *

These amendments are issued under the authority of Sections 1006, 2002(a), 3002, 3003, 3004 and 3005 of the Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act of 1976 (RCRA), as amended, 42 U.S.C. 6905, 6912(a), 6922, 6923, 6924 and 6925.

[FR Doc. 80-36131 Filed 11-18-80; 8:45 am]
BILLING CODE 6560-30-M

40 CFR Parts 122, 260, 264 and 265

[SWH-FRL 1675-5]

Hazardous Waste Management System

AGENCY: Environmental Protection Agency.

ACTION: Interim final rule and request for comments.

SUMMARY: In regulations promulgated in May of 1980, the Environmental Protection Agency ("EPA") established a comprehensive program for the handling and management of hazardous wastes. 45 FR 33066 (May 19, 1980). The regulations, among other things, set forth substantive requirements for the treatment and storage of hazardous wastes and require owners and operators of treatment and storage facilities to have Resource Conservation and Recovery Act (RCRA) permits or interim status pursuant to Parts 265 and 122 of the regulations. Certain activities which persons may take in response to spills of hazardous wastes or materials which, when spilled, become hazardous waste might be considered treatment (e.g., absorption, neutralization) or storage (e.g., diking, containment). In this action EPA makes clear that the requirements for treatment and storage are not applicable to actions taken to

immediately contain and treat spills of hazardous wastes and materials which, when spilled, become hazardous waste. This action also adds a definition of spill in §§ 260.10 and 122.3.

DATES: Effective date: These amendments become effective on November 19, 1980.

Comment Date: The Agency will accept comments on these amendments until January 19, 1981.

ADDRESS: Comments on these amendments should be addressed to the Docket Clerk (Docket 3004, Office of Solid Waste (WH-562), U.S. Environmental Protection Agency, 401 M Street, S.W., Washington, D.C. 20460.

FOR FURTHER INFORMATION CONTACT: For general information, contact Amy Mills, Office of Solid Waste (WH-563), U.S. Environmental Protection Agency, 401 M Street, S.W., Washington, D.C. 20460. For information on implementation, contact:

Region I, Dennis Hueber, Chief, Radiation, Waste Management Branch, John F. Kennedy Building, Boston, Massachusetts 02203, (617) 223-5777

Region II, Dr. Ernest Regna, Chief, Solid Waste Branch, 26 Federal Plaza, New York, New York 10007, (212) 264-0504/5

Region III, Robert L. Allen, Chief, Hazardous Materials Branch, 6th and Walnut Streets, Philadelphia, Pennsylvania 19106, (215) 597-0980

Region IV, James Scarbrough, Chief, Residuals Management Branch, 345 Courtland Street, N.E., Atlanta, Georgia 30365, (404) 881-3016

Region V, Karl J. Klepitsch, Jr., Chief, Waste Management Branch, 230 South Dearborn Street, Chicago, Illinois 60604, (312) 886-6148

Region VI, R. Stan Jorgensen, Acting Chief, Solid Waste Branch, 1201 Elm Street, First International Building, Dallas, Texas 75270, (214) 767-2645

Region VII, Robert L. Morby, Chief, Hazardous Materials Branch, 324 E. 11th Street, Kansas City, Missouri 64106, (816) 347-3307

Region VIII, Lawrence P. Gazda, Chief, Waste Management Branch, 1860 Lincoln Street, Denver, Colorado 80203, (303) 837-2221

Region IX, Arnold R. Den, Chief, Hazardous Materials Branch, 215 Fremont Street, San Francisco, California 94105, (415) 556-4606

Region X, Kenneth D. Feigner, Chief, Waste Management Branch, 1200 Sixth Avenue, Seattle, Washington 98101, (206) 442-1260

SUPPLEMENTARY INFORMATION:

I. Introduction

In May of 1980, EPA promulgated regulations implementing Subtitle C of the Resource Conservation and Recovery Act of 1976, as amended ("RCRA"). These regulations, among other things, identify and list hazardous wastes (Part 261), establish standards for generators and transporters of hazardous waste (Parts 262 and 263), and set standards and permit requirements for owners and operators of facilities that treat, store or dispose of hazardous waste (Parts 264 and 265 and Parts 122 and 124). 45 FR 33066 (May 19, 1980). These regulations are designed to ensure the proper handling and management of hazardous wastes from their generation through their ultimate disposition.

Because wastes may be produced, handled and disposed of in a large number of ways, the regulations necessarily are cast in broad terms. A generator is anyone whose act or process produces a hazardous waste or whose action first causes a hazardous waste to become subject to regulation. Section 260.10(a), 45 FR 72024 (October 30, 1980). This act or process may be the manufacture of goods or materials, service operations such as cleaning with chemical solvents listed in § 261.31, or the discard of commercial chemical products listed § 261.33. Storage is defined as "the holding of hazardous waste for a temporary period . . .", and treatment as "any method, technique, or process, including neutralization, designed to change the physical, chemical, or biological character or composition of any hazardous waste so as to neutralize such waste, or so as to render such waste nonhazardous, or less hazardous; safer to transport, store or dispose of; or amenable for recovery, amenable for storage, or reduced in volume." Section 260.10(a).

This action concerns how the regulations apply to hazardous wastes that are created by spills of hazardous waste or materials which, when spilled, become hazardous waste. For reasons discussed below, the word "spill" is defined in the amendments published today as "the accidental spilling, leaking, pumping, pouring, emitting, emptying, or dumping of hazardous waste or material which, when spilled, becomes hazardous waste into or on any land or water." This definition obviously covers spills of those hazardous waste listed in §§ 261.31 and 261.32 and those solid wastes that exhibit any of the characteristics of hazardous wastes defined in Subpart C of Part 261. This definition also covers spills of the commercial chemical products and manufacturing chemical intermediates listed in § 261.33 (e) and (f). The Agency interprets spills of these materials to constitute discarding of such materials (see definitions in § 261.2 (c) and (d)). These materials, when discarded, are hazardous waste (see § 261.33). In addition, other materials, when spilled, are considered solid waste because spilling constitutes discarding and may exhibit the characteristic of hazardous waste defined in Subpart C of Part 261.

Members of the regulated community have asked whether certain activities taken in immediate response to such spills constitute treatment (e.g., neutralizing the hazardous waste) or storage (e.g., containing the waste in order to prevent its spread). These questions have significant practical implications. Treatment and storage of hazardous wastes, under the regulations, must be carried out in facilities that have interim status under Section 3005(e) of RCRA and 40 CFR Part 122 or that have a storage or treatment permit from EPA or a State authorized to run a hazardous waste program under Section 3006.[1] Spills are sudden, unplanned events. In many cases, the treatment or storage necessary to respond to spills will not be covered by a RCRA permit or interim status. This is particularly true for generators who do not treat, store or dispose of hazardous waste and transporters who would have neither a permit nor interim status. It also may be true for owners and operators of treatment, storage or disposal facilities where their permit or interim status may not cover the types of treatment or storage performed in responding to a particular spill. Persons responding to the spills would be placed in the uncomfortable position of taking actions necessary to protect human health and the environment while being in violation of RCRA.[2]

In addition, Parts 264 and 265 set forth the manner in which persons may treat

[1] Under § 122.27 the Regional Administrator is authorized to issue emergency permits if there is an imminent and substantial endangerment to human health or the environment to allow the treatment, storage or disposal of hazardous waste for a nonpermitted facility or activities not covered by a permit. § 122.27 set forth procedures governing the issuance of emergency permits. EPA is presently developing guidance for the issuance of these permits.

[2] Hazardous wastes produced in small quantities are excluded from full Subtitle C regulation under § 261.5. A condition of that exclusion, however, is that wastes subject to § 261.5 must be managed in Subtitle C facilities, facilities approved by the State, or use, re-use, recycling or reclamation facilities. Thus, even for spills by small quantity generators, the same dilemma is posed for persons whose response might constitute treatment or storage.

or store hazardous wastes. With respect to chemical, physical, and biological treatment, for example, the regulations prescribe such things as general operating requirements, waste analysis and trail tests, inspections, and closure requirements. See 40 CFR 265 Subpart Q. If, for example, reagents are used to absorb or neutralize a chemical product listed in § 261.33 which has spilled in a plant, the treatment requirements specified in the regulations would technically govern the response to the spill.

This amendment is designed to allow appropriate responses to spills of hazardous wastes without being limited by the treatment and storage standards and the permit and interim status requirements of the regulations. It should be noted that EPA is developing regulations which will address in more comprehensive fashion the application of the RCRA regulations to spill response activities. That rulemaking will clarify, among other things, relationship of RCRA and other Federal statutes, particularly the Clean Water Act and the Hazardous Materials Transportation Act, which concern spill activities.

II. What These Amendments Do

The amendments published today add three new elements to the regulations published in May, 1980: they add a definition of spill; exempt immediate containment and treatment activities from the Part 264 and 265 regulations governing treatment and storage; and, amend Part 122 to indicate that such activities do not have to be covered by a RCRA permit or interim status.

The definition of "spill" is the same as the definition of "discharge" in § 260. 10(a), except that the word "intentional" has been deleted from the definition of spill and the phrase "material which, when spilled, becomes hazardous waste" has been added. The exclusion from regulation provided in today's amendments is designed to allow persons to respond immediately to sudden, unplanned occurrences, i.e., accidents, which release materials or wastes into the environment. There does not appear to be any basis to extend today's action to intentional releases which might occur. Releases which occur from burst pipes and ruptured containers would be considered spills; releases which routinely occur from, for example, scheduled maintenance of machinery would not be. The Agency specifically requests comment on whether the definition of spills provides appropriate scope for the substantive amendments published today. For purposes of the RCRA portions of the consolidated permit regulations, a corresponding definition of spill has been added to § 122.3.

The amendments to Parts 264 and 265 state that treatment and containment actions taken in immediate response to spills are not considered treatment or storage of hazardous waste. These response activities are not subject, therefore, to the detailed requirements of those parts governing treatment and storage. The amendment to § 122.21 indicates that these activities do not have to be covered by a RCRA permit.

The amendments only cover activities during the immediate response to a spill. As discussed below, once this response is accomplished, other regulatory provisions apply. Section IV of this preamble provides examples of how these amendments and the other regulatory provisions apply to spill situations. These amendments are designed to allow persons to respond immediately to spills which may pose dangers to human health and the environment. If the Agency believes that anyone is abusing this provision, it will not hesitate to bring enforcement actions, including, under appropriate circumstances, criminal prosecutions.

III. Regulations not Affected by This Amendment

The purpose of today's amendments is to allow persons to treat and contain spills without having engaged in treatment and storage activities and to recognize that spills occur at places which might otherwise not be treatment and storage facilities. These amendments do not affect whether the spilled substance, residue or debris is a hazardous waste or not; Part 261 will govern. They do not affect in an way the application of the generator and transporter requirements; Parts 262 and 263 will govern these activities. After the immediate response activities are completed, the hazardous waste is subject to all the requirements for transportation, treatment, storage, or disposal.

The regulations promulgated in May, 1980, explicitly place specific requirements for certain spills of hazardous waste—discharges occurring during transportation and releases occurring at on-site accumulation areas and in treatment, storage and disposal facilities. These regulations, described briefly below, are unaffected by the amendments published today. These amendments complement the regulations by clarifying that actions taken in response to spills and in compliance with those regulations are not subject to the treatment and storage regulations and do not have to be carried out at a treatment or storage facility with a RCRA permit or in interim status.

Discharges of hazardous waste during transportation are subject to the provisions of Part 263 concerning immediate action, reporting, and cleanup. 40 CFR 263.30 and 263.31, 45 FR 12744 (February 26, 1980), republished at 45 FR 33152 (May 19, 1980). Discharges of hazardous materials during transportation are also subject to the reporting provisions of DOT regulations under the Hazardous Materials Transportation Act. 49 CFR 171.15, 171.16. These regulations will apply to spills during transportation and those requirements are not affected by today's amendment.

The Part 264 and 265 regulations contain extensive requirements for hazardous waste management facilities concerning preparedness and prevention, and contingency plans and emergency procedures. 40 CFR Part 265, Subparts C and D, 45 FR 33236, 33237 (May 19, 1980). To ensure proper response to explosions, fires, and other releases of hazardous waste, these provisions require owners and operators of regulated facilities to have safety equipment and systems, arrangements with relevant local authorities, a contingency plan and emergency procedures covering response activities. These regulations continue to apply to releases at hazardous waste management facilities which present dangers to human health and the environment. For example, §§ 264.56 and 265.56, concerning emergency procedures, have not been exempted. The emergency coordinator must follow the procedures set forth in those sections. Today's amendment simply means that actions taken, for example, under § 265.56(e), are not subject to the treatment and storage requirements of Part 265.

Regulations promulgated under other Federal, state or local laws may apply to spills of hazardous waste and other materials. On the Federal level, two examples are Section 311 of the Clean Water Act and the Hazardous Materials Transportation Act. Under Section 311 of the Clean Water Act, discharges of oils and hazardous substances (which may also be hazardous wastes) are subject to regulation. Hazardous materials, as regulated by DOT under the Hazardous Materials Transportation Act, include hazardous wastes. See 45 FR 3451 (May 22, 1980). The amendments published today concern only RCRA requirements and in no way affect a person's obligations or responsibilities under any other applicable Federal, state or local law.

IV. Examples of How These Amendments Operate

The following examples illustrate the manner in which the amendments publisbed today operate and tie in with the other RCRA regulations.

1. A manufacturer spills a commercial chemical product listed in § 261.33(e) on the floor of his plant. He immediately uses a reagent to absorb or neutralize the spill, whose residue amounts to more than 100 kilograms. He places the residue in containers for subsequent transportation off-site. What regulations apply?

The manufacturer is a generator of a hazardous waste—the spilled chemical as well as the resulting residue. He is not a small quantity generator because he has generated more than 100 kilograms of § 261.33(e) residue. See 40 CFR § 261.5(e)(2). His use of the reagent is not subject to treatment regulations of Parts 264 and 265 and this use does not have to be covered by a RCRA permit or interim status. Once the immediate response is over, however, he becomes subject to the generator requirements of Part 262. These include requirements for accumulation on-site, use of EPA identification numbers prior to transporting the residue off-site, initiation of the manifest, and use of appropriate packaging, labelling, marking and placarding.[3] Manufacturers who anticipate such spills may, as a precautionary measure, make necessary arrangements to comply with the Part 262 regulations in advance. And, the transportation and subsequent treatment, storage or disposal of the spill residue is subject to the requirements of Parts 263, 264, 265 and 122.

2. A tank used to accumulate hazardous waste (under the requirements of § 262.34) ruptures and the wastes spill on to the ground. Because the tank does not have a secondary containment system, the generator immediately builds an emergency dike to contain the spilled waste. He subsequently pumps the spilled waste into drums and, after several weeks, ships those drums off-site to an incinerator.

The design, construction and operation of the emergency containment dike is not subject to the RCRA Subtitle C regulations (however, the overall response to the spill is subject to the requirements of Subparts C and D of Part 265 which apply by reference through § 262.34). The storage of the cleaned-up wastes in drums is subject to the accumulation requirements of § 262.34 if storage in the drums is for less than 90-days before off-site shipment or in a on-site. If storage in the drums exceeds 90-days, then this must be covered by a RCRA permit (an existing permit, a new permit, or an emergency permit) or be covered by interim status, and must be carried out in compliance with the applicable requirements of Parts 264 or 265. The incinerator that the drummed wastes shipped to, must have a RCRA permit or interim status.

If, as part of the immediate clean-up action, the containment soil of the diked containment area is treated (e.g., decontamination of the soil in a mobile treatment unit) or the spilled waste is treated, such activity also would not be subject to regulation. However, if such treatment extends beyond the immediate clean-up action, EPA will require an emergency RCRA permit to be obtained. If contaminated soil is left in place, this constitutes disposal and will require a RCRA permit.

3. A spill of hazardous waste material listed in § 261.33(e) occurs in transportation. What must the transporter do?

Under § 263.30(a), the transporter must take appropriate immediate action to protect human health and the environment. The spill containment or treatment action taken in immediate response is exempt from the traatment and storage requirements of Parts 264 and 265 and the transporter is not required to have a RCRA permit or interim status for such action. If he has generated hazardous waste, he must comply with Part 262 when the immediate actions are over. If he transports the spill residue from the spill site, he must comply with the transporter requirements of Part 263 and transport the residue to a facility with a RCRA permit or interim status.

If required by DOT regulations (see 49 CFR 171.15) or other federal regulations (see, e.g., 40 CFR 117.21 and 33 CFR 153.201), the transporter must notify the National Response Center. If an on-scene coordinator or other official arrives, that official may undertake response activities which are exempted by today's amendments from the RCRA standards and permit requirements for treatment and storage. Under the present regulations, § 263.30(b), these officials may authorize the removal of the waste by transporters without EPA identification numbers and without the preparation of a manifest. The hazardous waste residue must be sent to a hazardous waste management facility with a RCRA permit or interim status. If long-term containment or treatment occurs at the spill site, the site must have a full RCRA permit, interim status, or an emergency permit.

4. A spill occurs on the site of disposal facility which is in interim status. The operator of the facility undertakes immediate containment and clean up. He subsequently disposes of the waste at his facility.

The immediate containment and clean up activities are exempted from the requirements of Part 264 and storage and treatment. The owners and operators of the facility must, however, carry out the provisions of the contingency plan under § 265.51 and follow the emergency procedures § 265.56. The disposal of the hazardous waste is subject to the disposal requirements of Part 265. If the disposal facility is unable to dispose of the spill residue, the owner or operator of the facility, if he has generated a hazardous waste, may accumulate the waste on-site under the provisions of § 262.34, and must comply with all the Part 262 requirements applicable to generators of hazardous waste.

V. Effective Date

Section 3010(b) of RCRA provides that EPA's hazardous waste regulations and revisions thereto take effect six months after their promulgation. The purpose of this requirement is to allow persons handling hazardous wastas sufficient lead time to prepare to comply with major new regulatory requirements. For the amendments promulgated today, however, the Agency believes that an effective date six months after promulgation would cause suhstantial and unnecessary disruption in the implementation of the regulations and would he contrary to the public interest. The amendments make clear that persons responding to spills are not engaging in treatment and storage activities and that such activities do not have to be done in facilities with a RCRA permit or in interim status. The effect of the amendments will be to relieve these persons of having to comply with a number of impractical requirements with respect to spills response actions. The Agency believes that this is not the type of regulation revision that Congress had in mind

[3] EPA recognizes that certain persons, including manufacturers and transporters of hazardous materials, may not have EPA identification numbers prior to a spill which creates hazardous waste. At this time EPA has decided not to exempt discharges from the requirement of having an EPA ID number. Generators do not need an EPA ID number at the time of generation but rather at the time of treating, storing or disposing of the waste or transporting or offering the waste for transportation. Generators will have an opportunity to obtain an EPA ID number after the spill. And, persons who anticipate that they may generate hazardous waste in the future may obtain an EPA ID number in advance. For these reasons, EPA believes that at this time there is no reason to exempt these generators from this requirement.

when it provided a six month delay between the promulgation and the effective date of revisions to regulations. Consequently, the Agency is setting an effective date of November 19, 1980, for these amendments.

VI. Promulgation in Interim Final Form

These amendments operate as a clarification of the hazardous waste regulations published in May of 1980. 45 FR 33066 (May 19, 1980). With certain exceptions, those regulations did not address containment and treatment of spills of hazardous wastes or materials which, when spilled, become hazardous wastes. A literal interpretation of the May regulations, however, would mean that such actions constitute storage and disposal fully subject to regulation. These amendments conform the regulations to their original intent. The Agency believes that good cause exists for promulgation of this rule in final form. See 5 U.S.C. 553(b)(B).

Delaying the application of these rules to allow opportunity for public notice and comment would work substantial hardship on persons handling hazardous waste. The regulatory program goes into effect on November 19, 1980. Spills are everyday occurrences in the real world. Without immediate clarification of the regulations, all persons who might in the future spill a hazardous material or hazardous waste would hava to the prepared to be in full compliance with the Part 265 regulations governing treatment and storage. Without these clarifying amendments substantial hardship would be imposed, without appreciable benefit, on the regulated community.

VII. Requests for Comments

The Agency is soliciting comments on all aspects of the amendments and on all issues discussed in this preamble. In addition, the Agency may initiate more comprehensive rulemaking in the near future on RCRA's application to spill responses. The amendments published today will be subject to reconsideration at that time. The public may accordingly be provided additional opportunity to comment on the Agency's regulation of spills.

VIII. Regulatory Impacts

The effect of these amendments is to reduce the overall costs, economic impact and reporting and recordkeeping impacts of EPA's hazardous waste management regulations. The Agency is unable to estimate these reductions.

Dated: November 14, 1980.

Douglas M. Costle,

Administrator.

Title 40 of the code of Federal Regulations is amended as follows:

§ 260.10 [Amended]

1. Add the following definition to § 260.10(a)(64a):

"Spill" means the accidental spilling, leaking, pumping, pouring, emitting, or dumping of hazardous wastes or materials which, when spilled, become hazardous wastes into or on any land or water.

§ 122.3 [Amended]

2. Add the following definition to § 122.3:

"Spill" [RCRA] means the accidental spilling, leaking, pumping, emitting, emptying, or dumping of hazardous wastes or materials which, when spilled, become hazardous wastes into or on any land or water.

§ 264.1 [Amended]

3. Add the following paragraph (g)(8) to § 264.1:

* * * * *

(g) * * *

(8) Persons with respect to those activities which are carried out to immediately contain or treat a spill of hazardous waste or material which, when spilled, becomes a hazardous waste, except that, with respect to such activities, the appropriate requirements of Subpart C and D of this Part are applicable to owners and operators of treatment, storage and disposal facilities otherwise subject to this Part. [Comment: This paragraph only applies to activities taken in immediate response to a spill. After the immediate response activities are completed, the applicable regulations of this Chapter apply fully to the management of any spill residue or debris which is a hazardous waste under Part 261.]

§ 265.1 [Amended]

4. Add the following paragraph (c)(11) to § 265.1:

* * * * *

(c) * * *

(11) Persons with respect to those activities which are carried out to immediately contain or treat a spill of hazardous waste or material which, when spilled, becomes a hazardous waste, except that, with respect to such activities, the appropriate requirements of Subpart C and D of this Part are applicable to owners and operators of treatment, storage and disposal facilities otherwise subject to this Part. [Comment: This paragraph only applies to activities taken in immediate response to a spill. After the immediate response activities are completed, the regulations of this Chapter apply fully to the management of any spill residue or debris which is a hazardous waste under Part 261.]

§ 122.21 [Amended]

5. Add the following paragraph (d)(3) to § 122.21:

* * * * *

(d) * * *

(3) Further exclusions. A person is not required to obtain a RCRA permit for those activities he carries out to immediately contain or treat a spill of hazardous waste or material which, when spilled, becomes a hazardous waste. [Comments: This exclusion is intended to relieve persons of the necessity of obtaining a RCRA permit where the treatment or storage of hazardous waste is undertaken as part of an immediate response to a spill. Any treatment, storage or disposal of spilled material or spill residue or debris that is undertaken must be covered by a RCRA permit, an emergency RCRA permit or interim status.]

These amendments are issued under the authority of Sections 1006, 2002(a), 3004 and 3005 of the Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act of 1976 (RCRA), as amended, 42 U.S.C. 6905, 6912(a), 6924 and 6925.

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BILLING CODE 6560-30-M

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40 CFR Part 122

[SWH-FRL 1675-2]

Hazardous Waste Management System: General and EPA Administered Permit Programs: The Hazardous Waste Permit Program

AGENCY: United States Environmental Protection Agency.

ACTION: Interim final rule and request for comments.

SUMMARY: The Environmental Protection Agency ("EPA") is today amending its hazardous waste permit regulations to clarify the circumstances under which hazardous waste management facilities may qualify for interim status. Interim status is the condition under which certain facilities would be treated as having been issued a permit until such time as final administrative action was taken on their permit application. These amendments have been prompted by questions from States and the regulated community concerning the eligibility of various types of facilities for interim status.

This notice also solicits comment on enforcement and regulatory policies which EPA is considering adopting to deal with facilities which miss the notice and application filing deadlines for interim status.

DATES: Effective date: November 19, 1980. Comment Date: Comments on the amendments and policies discussed in this notice are due February 17, 1981.

FOR FURTHER INFORMATION CONTACT: John H. Skinner, Director, State Programs and Resource Recovery Division (WH-564), U.S. Environmental Protection Agency, 401 M Street, S.W., Washington, D.C. 20460, 202/755-9107.

ADDRESSES: Comments should be sent to Docket Clerk, Office of Solid Waste (WH-562), 401 M Street, S.W., Washington, D.C. The comments should refer to "Docket 3005-Interim status".

SUPPLEMENTARY INFORMATION:

I. Introduction

Subtitle C of the Resource Conservation and Recovery Act of 1976, as amended ("RCRA"), 42 U.S.C. §§ 6921-6933, requires EPA to establish a comprehensive Federal regulatory program to assure the proper management of hazardous waste. One of the most important features of this program is the rquirement that facilities[1] which treat, store or dispose of hazardous waste obtain a permit from EPA (or a State authorized by EPA to conduct a hazardous waste program) and that hazardous wastes only be designated for, delivered to and treated, stored or disposed of in these permitted facilities (Sections 3002, 3003, 3004 and 3005). Indeed, after the effective date of EPA's regulations identifying hazardous wastes, it is a felony to transport those wastes to an unpermitted facility or to treat, store or dispose of them at an unpermitted facility (Sections 3008(d)(1) and (2)).

Recognizing that EPA and authorized States would not be able to issue permits to all hazardous waste management facilities before the Subtitle C program became effective, Congress provided in Section 3005(e) of RCRA that certain facilities would be treated as having been issued a permit until such time as final administrative action was taken on their permit application. This statutory permit—commonly referred to as "interim status", the title of Section 3005(e)—is conditioned on a facility's meeting the following three requirements:

1. The facility must have been in existence on November 19, 1980.[2]

2. The facility must have "complied with the requirements of section 3010(a)" of RCRA (notification of hazardous waste activity).

3. The facility must have filed an application for a permit under Section 3005.

On May 19, 1980, EPA published regulations defining when a hazardous waste management facility may qualify for interim status. See 40 CFR §§ 122.22(a) and 122.23(a), 45 FR 33433-33434 (May 19, 1980). Those regulations provide that interim status may only be obtained by an existing facility (defined in § 122.3) which has "[n]otified the Administrator within 90 days from the promulgation or revision of Part 261 as required by Section 3010 of RCRA" (§ 122.23(a)(1)) and submitted an application within "six months after the first promulgation of regulations in 40 CFR Part 261 listing and identifying hazardous wastes"—i.e., November 19,1980 (§ 122.22(a)).

EPA has received numerous questions about these provisions since their publication. Most have focused on two major issues: whether facilities can qualify for interim status after November 19, 1980, and whether facilities which missed statutory or regulatory filing deadlines can qualify for iterim status. We have examined these issues carefully and have concluded that §§ 122.22(a) and 122.23 need to be amended to better define the universe of hazardous waste management facilities which are eligible for interim status under Section 3005(e). We have also decided that the Agency needs to establish enforcement and regulatory policies to deal with facilities which have failed to meet applicable deadlines for filing notifications and permit applications. These amendments and policies are discussed below in the context of the three statutory prerequisites for interim status.

II. Requirement That Facilities "Comply With the Requirements of Section 3010(a)"

Section 3005(e)(2) of RCRA conditions interim status on a facility's having "complied with the requirements of Section 3010(a)." Section 3010(a) in turn requires that:

> Not later than ninety days after promulgation of regulations under section 3001 identifying * * * or listing any substance as a hazardous waste . . . any person generating or transporting such substance or owning or operating a facility for the treatment, storage or disposal of such substance shall file with the Administrator (or with States having authorized hazardous waste permit programs * * *) a notification stating the location and general description of the activity and the identified or listed hazardous wastes handled by such person.

Three major questions have been raised concerning the interrelationship between Sections 3005(e)(2) and 3010(a).

A. *Requirement to notify.*

A number of facilities have pointed out to EPA that they were not required to notify under Section 3010(a). They have asked whether a facility which is not required to notify under Section 3010(a) (and therefore did not submit a timely notification) would be eligible for interim status.

These facilities are correct in their observation that Section 3010(a) does not require all hazardous waste management facilities to notify. The notification requirements of Section 3010 are triggered only by the publication of regulations under Section 3001 "identify by its characteristics or listing any substance as hazardous waste subject to . . . subtitle [C]" and apply only to persons who are handling those substances at the time the regulations are published. See also 45 FR 12747-12748 (February 26, 1980). Moreover, EPA has, by regulation, exempted several classes of facilities which would otherwise be required to notify under Section 3010 from having to comply with any notification requirements (e.g., on-site storage facilities operated by small quantity generators (see § 261.5) and recycling facilities (see § 261.6)).

If a facility is not required to file a Section 3010 notification, it is EPA's opinion that it has "complied with the requirements of Section 3010(a)" and has met that prerequisite for interim status. A contrary construction of Section 3005(e)(2)—which would have eligibility for interim status turn on whether a facility had filed a notification, irrespective of whether it was required to—would condition interim status on a facility's meeting a requirement which was not dictated by either statute or regulation. Indeed, in some cases—e.g., where a facility did not begin handling hazardous waste until after the ninety-day notification deadline—it would condition interim status on a facility's meeting a requirement with which it could not, as a practical matter, comply.

EPA's May 19, 1980, regulations defining when a facility may obtain

[1] Throughout this notice, EPA will use the term "facility" to refer to the owner and operator of a hazardous waste management facility as well as the facility itself. Thus where, for example, the notice speaks of a "facility" being issued a permit, that term should be understood to mean the owner and operator of the facility.

[2] When RCRA was originally enacted, Section 3005(e) provided that a facility had to be in existence as of "the date of enactment of this Act"—i.e., October 21, 1976. Recent amendments to RCRA have changed this date to November 19, 1980. See Section 10 of the Solid Waste Disposal Act Amendments of 1980, P.L. 96-482 (October 21, 1980).

interim status did not reflect the distinction between filing a notification and being required to file a notification under Section 3010. To correct this error, EPA is today amending § 122.23(a)(1) to make it clear that a facility which is not required to notify under Section 3010 may obtain interim status without filing a notification if it meets the remaining two prerequisites set forth in Section 3005(e).[3]

B. *Ninety day filing deadline.*

A number of facilities which were required to file a notification as a result of the publication of EPA's May 19, 1980, regulations have advised the Agency that they did not file a notification within ninety days. These facilities have asked whether they will be eligible for interim status if they file a late notification.

As noted above, Section 3010(a) requires facilities handling wastes listed in EPA's May 19, 1980, regulations not only to file a notification, but to file the notification within ninety days (i.e., by August 18, 1980). It is EPA's opinion that a facility which was required to notify as a result of the publication of EPA's May 19, 1980, regulations and did not file a notification by August 18, 1980, has not "complied with the requirements of section 3010(a)" and is not eligible for interim status. A contrary interpretation of Section 3010(a) would essentially read the ninety-day deadline out of the statute.

EPA recognizes that this literal construction may have the effect of preventing some well-managed facilities from ever qualifying for interim status. We have developed two policies to provide relief in these situations. The first deals with facilities whose failure to notify is attributable to ambiguities in EPA's regulations; the second with facilities whose failure to notify is their own fault. In our opinion, these policies will preserve the integrity of the ninety-day deadline in Section 3010 while at the same time providing the administrative flexibility necessary to deal with late filings on a case-by-case basis.

1. *Revised notification requirements.*

Since the publication of EPA's May 19, 1980, regulations, members of the regulated community, States and environmental groups have brought to EPA's attention a number of provisions in the regulations which were not clear, or, as applied to specific waste management situations, did not make sense. In an August 19, 1980, Federal Register notice (45 FR 55386), EPA identified approximately twenty of these provisions, and promised to issue regulatory amendments or regulatory interpretation memoranda (RIMs) to correct, modify or clarify them.

Some of these provisions deal with the issue of whether a person was handling a hazardous waste on May 19, 1980, and therefore was required to notify EPA under Section 3010 by August 18, 1980. In most cases, the regulatory amendments and RIMs which are now being developed by EPA will have the effect of narrowing the universe of persons who were required to notify on August 18, 1980 (based on a literal reading of the regulations). In a few cases, however, they may bring within Subtitle C control owners and operators of facilities who could reasonably have concluded, based on a careful reading of the May 19, 1980, regulations, that they were not required to notify on August 18, 1980.

We do not think it is fair to penalize facilities for failing to notify under Section 3010 where that failure is attributable to major ambiguities in EPA's hazardous waste regulations. Although we do not believe we have the authority to waive the ninety-day statutory filing deadline for facilities which were required to notify on August 18, 1980, we do think we have the authority under RCRA to issue a *post hoc* administrative finding that a particular class of facilities was not required to notify at all because of major uncertainties in EPA's regulations. It is our intent, therefore, at the time EPA publishes future Federal Register notices announcing amendments to or interpretations of our hazardous waste regulations, (1) to decide whether some class of facilities may have failed to notify because of ambiguities in those regulations and if so, (2) to issue a determination that that class of facilities was not required to notify under Section 3010 on August 18, 1980, and to establish new deadlines for submitting permit applications and complying with interim status standards under 40 CFR Part 265.[4] The effect of this determination will be to make the designated facilities eligible for interim status even though they failed to notify on August 18, 1980.

b. *Enforcement discretion.*

In addition to facilities which failed to file a timely notification because of major ambiguities in EPA's regulations, there are no doubt a number of facilities which failed to notify as a result of clerical errors, oversight or other factors. Some may be well-managed facilities whose continued operation is in the public interest.

Although EPA cannot grant interim status to facilities which failed to file a timely Section 3010 notification, we are prepared to exercise our enforcement discretion to allow such facilities to continue operating after November 19, where their continued operation would be in the public interest. To provide formal assurances to these facilities that they will not be prosecuted for operating without a permit, EPA is considering issuing Interim Status Compliance Letters ("ISCLs") to qualifying facilities stating that the Government will not prosecute them for operating without a permit if they file a permit application and comply with all applicable Part 265 standards. The ISCL would contain similar provisions shielding generators and transporters using these facilities from Federal prosecution for sending wastes to an unpermitted facility. Compliance orders issued under Section 3008 of RCRA (with or without a civil penalty assessment) could also be used to achieve essentially the same result.

Although a facility operating under an ISCL or compliance order and complying with EPA's Part 265 regulations would not be immune from citizen suits under Section 7002 of RCRA because it was technically operating without a permit, we doubt that such suits would ever be successful. Federal courts sitting in equity are not likely to close down facilities which have failed to submit a timely notification under Section 3010 if they are otherwise fully complying with all applicable substantive environmental standards.

An ISCL or compliance order would also assist facilities which must file under Section 13 of the Securities and Exchange Act of 1934, as amended, in making a full disclosure of the extent of their potential liability under RCRA. As noted above, for a facility which is complying with its ISCL or compliance order, potential liability under Section 3008 or 7002 should be negligible.

EPA expressly solicits comment on these approaches. A similar enforcement policy was successfully used by EPA under the Clean Water Act ("CWA") to deal with an inflexible statutory deadline much like the ninety-day deadline in Section 3010.[5] The main

[3] Facilities which have not submitted a notification under Section 3010(a) would, of course, still be required to file for an EPA identification number. See 40 CFR § 265.11, 45 FR 33234 (May 19, 1980).

[4] If an amendment deals with the issue whether a material is a hazardous waste, EPA may at the same time trigger a new opportunity for notification under Section 3010.

[5] Section 301(b) of the Clean Water Act, 33 U.S.C. § 1331(b), requires all point source dischargers to meet effluent limitations based on the best practicable control technology by July 1, 1977. When it became apparent that some dischargers would not be able to meet July 1, 1977 deadline, EPA began issuing letters and orders to these facilities stating

Footnotes continued on next page

difference between the CWA policy and the policy announced above is that under the latter EPA would generally not extend deadlines for complying with applicable regulatory requirements. In this respect, we think it is an even more judicious and envionmentally sound exercise of EPA's enforcement discretion.

3. *A Caveat.*

Facilities should not construe the announcement of the foregoing policies (or the amendments discussed in Section III, below) as an invitation to miss applicable statutory or regulatory filing deadlines. These policies are designed to address situations where facilities have acted reasonably and in good faith or where well-operated facilities have through clerical error or oversight failed to submit a timely notification date. They are not intended for facilities which have made little or no effort to comply with EPA's regulations.

C. *1980 Amendments to Section 3010(a).*

The Solid Waste Disposal Act Amendments of 1980, P.L. 96-482 (October 21, 1980), amend Section 3010(a) of RCRA to make notifications triggered by amendments to EPA's Section 3001 regulations after October 21, 1980, discretionary with the Administrator. EPA has been asked what effect these amendments will have on facilities' eligibility for interim status.

We see two important consequences for interim status flowing from the enactment of these amendments. First, facilities which handle wastes listed or identified as hazardous wastes by EPA after October 21, 1980, are no longer automatically required to notify under Section 3010. Only if EPA expressly requires facilities to notify will notification under Section 3010(a) be required.

Second, there is no longer any statutory deadline for filing notifications. In the future, all notification deadlines will be set by regulation. This will give EPA the same administrative flexibility to deal with late notifications that it currently has with respect to late permit applications. See Section III, below.

III. Requirement that a Facility Have "Filed an Application Under this Section"

A second statutory prerequisite of interim status is that the owner and operator of a facility have "filed an application under * * * section [3005]". Section 3005(e)(3) EPA's regulations implementing Section 3005 condition eligibility for interim status on a facility's having "complied with the requirements of § 122.22(a) * * * governing submissions of Part A applications." See § 122.23(a)(2). Section 122.22(a)(2) in turn requires that a Part A application be submitted by November 19, 1980.

EPA has been asked whether, in light of these requirements, an existing hazardous waste management facility which is not now subject to EPA's hazardous waste regulations will be able to obtain interim status by filing an application after November 19, 1980, if EPA amends its regulations to bring them into the hazardous waste management system. The answer to this question is yes, if the owner ond operator of the facility file a permit application within six months of the amendment to EPA's regulations which first subjects the facility to the requirements of Part 265 or 266. EPA is today amending § 122.23(a) to clarify this point. As noted in the "comment" to this amendment, EPA will make every effort to identify permit filing deadlines in the Federal Register publications announcing amendments to its regulations to avoid future confusion about when Part A permit applications must be submitted. *See, e.g.*, 45 FR 47832 (July 16, 1980), 45 FR 74884-74885 (November 12, 1980).

EPA is also adding a paragraph to § 122.22(a) to make it clear that a facility which submits a permit application by a revised filing deadline announced by EPA in a Federal Register notice clarifying its regulations (see discussion in Section II.B.1, above) has met the prerequisites of Section 3005(e)(3) and is eligihle for interim status.

Some existing hazardous waste management facilities may need to qualify for interim status in the future, not as a result of EPA regulatory action, but because of cbanges in their own operations. For example, a small quantity generator may start generating over 1,000 kg of hazardous waste a month and need to obtain interim status for an exisitng on-site treatment, storage or disposal facility. Or a facility which properly determined on August 1, 1980, that the solid waste it was treating did not exhibit any of the characteristics of hazardous waste may retest it after November 19, 1980, and find that it exhibits the characteristic of extraction procedure toxicity. We have been asked whether the facilities will be able to qualify for interim status if they do not submit a permit application by November 19, 1980.

EPA believes these facilities should be eligible for interim status if they promptly file a permit application. Accordingly, we are today amending § 122.22(a) to allow these facilities to qualify for interim status if they file a permit application within 30 days after they lose their regulatory exemption or begin handling hazardous waste.

Readers should note that these facilities will technically be operating without a permit until they submit their permit application. EPA will not initiate any enforcement action against them, however, if they contact their EPA Regional Office immediately and file an application within the thirty-day period.

EPA believes these amendments will cover most situations where facilities which are eligible for interim status under Sections 3005(e) (1) and (2) must file a permit application. In the event they do not, and in the event some facilities inadvertently miss the filing deadlines set forth in § 122.23(a), EPA is adding another new provision to that section which allows a facility to obtain interim status if it files a permit application by the deadline set forth in a compliance order issued by EPA under Section 3008.

IV. Requirement that a Facility Be "in Existence on November 19, 1980"

The final statutory prerequisite for obtaining interim status is that a facility have been "in existence on November 19, 1980". EPA regulations define "existing facility" as a "facility in operation," (i.e., a facility "receiving hazardous waste for treatment, storage or disposal") or "facility for which construction has commenced." 40 CFR § 122.3 (definitions of "existing HWM facility" and "in operation"). EPA has been asked if a facility which was handling a solid waste on November 19, 1980, that was not identified or listed as a hazardous waste in EPA's Part 261 regulations prior to November 19, 1980, but was identified or listed in a subsequent amendment to those regulations could qualify as an existing hazardous waste management facility for purposes of obtaining interim status.

In EPA's opinion, if a facility was receiving for treatment, storage or disposal on or before November 19, 1980, a solid waste which is subsequently listed or identified as a hazardous waste by EPA, the facility was "in existence on November 19, 1980" and is eligible for interim status if it files a timely permit application and Section 3010 notification (if required). Limiting eligibility for interim status only to those facilities which were

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Footnotes continued from last page

that the Agency would not prosecute them for failing to meet the July 1, 1977, date if they met an alternative deadline and accompanying compliance schedule set forth in the letter or order.

handling a solid waste on November 19, 1980, that had been listed or identified as a hazardous waste prior to that date, would attach too much regulatory significance to the order in which EPA promulgates its hazardous waste listings. It would also prevent any facility which was handling a solid waste now temporarily exempted from Subtitle C controls as a "special waste" from ever obtaining interim status.[6]

Readers should note, however, that for a facility to qualify as an "existing facility" in this situation, the solid waste which the facility was handling on or before November 19, 1980, must be the same waste which is later identified or listed in EPA's hazardous waste regulations. A facility which is handling trash on November 19, 1980, for example, would not qualify as an existing facility simply because after November 19, 1980, it began handling a solid waste which was subsequently listed as a hazardous waste in EPA's Part 261 regulations.

EPA recognizes that it may be difficult for some facilities to establish a precise correlation between solid wastes handled prior to and after November 19, 1980, because of changes in manufacturing processes, wastewater treatment processes, air emission controls, raw materials or other similar components of the manufacturing and waste treatment process. The Agency solicits comment on what types of guidelines it should follow in these situations to determine if the wastes being handled prior to and after November 19, 1980, are the "same waste."

V. Practical application

To assist readers in understanding the amendments and policies which have been outlined above, EPA believes it would be useful to discuss how they would apply in concrete factual situations.

1. The ABC Company completed construction of a hazardous waste incinerator on October 1, 1980. On October 2, 1980, the facility begins incinerating a number of hazardous wastes listed in EPA's May 19, 1980 regulations. The facility submitted a permit application on November 1, 1980, but did not notify on August 18, 1980. Does the facility have interim status?

Yes. The facility was not required to file a Section 3010 notification because it was not handling hazardous waste at the time of promulgation of EPA's May 19, 1980, regulations. Thus, although it has not notified, it has nevertheless "complied with section 3010(a)" within the meaning of Section 3005(e).

The facility also meets the other two prerequisites for interim status.

2. The ABC Company owns a landfill which, since 1978, has been used continuously and exclusively for the disposal of sludges from the treatment of wastewater from widgit production. On January 1, 1982, EPA adds wastewater treatment sludge from the production of widgits to its hazardous waste list. The preamble to the Federal Register publication announcing the new listing does not expressly require facilities handling wastewater treatment sludges from widgit production to notify. It does state, however, that such facilities must file a permit application and begin complying with all applicable iterim status standards by July 1, 1982. The ABC Company files a complete permit application by July 1, 1982. Does it have interim status?

Yes. Section 3010(a) of RCRA was amended by the Solid Waste Disposal Act Amendments of 1980 on October 21, 1980, to make Section 3010(a) notifications based on revisions to EPA's hazardous waste list and characteristics discretionary with the Agency. Thus, in the absence of an explicit EPA directive to notify, a company handling a hazardous waste listed in a revision to EPA's Part 261 regulations which was published after October 21, 1980, would not be required to submit a new Section 3010 notification.

The ABC Company landfill also meets the two remaining prerequisites for interim status. Because it was handling a solid waste on November 19, 1980, which was subsequently listed as a hazardous waste by EPA, it was a hazardous waste management facility which was "in existence on November 19, 1980." It also filed a timely permit application.

3. The ABC Company owns an on-site landfill which was handling garbage on November 19, 1980. On January 1, 1981, the company goes into the widgit production business and begins using the landfill to dispose of sludges from the treatment of wastewater generated by the widgit production process. On January 1, 1982, EPA lists wastewater treatment sludges from the production of widgits as a hazardous waste. The preamble to the Federal Register publication announcing the new listing requires facilities handling widgit wastewater treatment sludges to notify by March 30, 1982, and submit a permit application by July 1, 1982. The ABC Company files a timely notification and permit application. Does its landfill have interim status?

No. On November 19, 1980, the landfill was not handling a hazardous waste (as defined by EPA in its May 19, or July 16, 1980, regulations) or a solid waste which was subsequently identified or listed as a hazardous waste by EPA. It was therefore not "in existence" as a hazardous waste management facility on November 19, 1980, and cannot qualify for interim status.

4. The ABC Company generates 500 kg per month of a waste listed in EPA's May 19, 1980, regulations. Since 1975, the company has disposed of this waste in an unlicensed on-site landfill. Starting on November 19, 1980, the company starts sending its waste to a state approved industrial landfill in order to take advantage of EPA's small quantity generator regulations. Later, EPA lowers the small quantity generator exemption to 100 kg per month. The ABC Company cannot find a nearby hazardous waste management facility to take its waste and would like to reactivate its on-site landfill. Is the landfill eligible for interim status?

Yes. The landfill can meet all three prerequisites for interim status if it submits complete permit application within six months after EPA amends Part 261 to lower the small quantity generator exemption.

5. The ABC Company treats a waste which it believes is exempted as hazardous waste under § 261.4 of EPA's May 19, 1980, regulations. It does not notify on August 18, 1980, or submit a permit application by November 19, 1980. On March 1, 1981, EPA issues an interpretation of § 261.4 which makes it clear that the waste treated by the company is not exempt. The company tests the waste against the characteristics of hazardous waste identifed in Subpart C of Part 261 and the waste exhibits several of the characteristics. Can the company's treatment facility qualify for interim status?

This will depend on the content of the Federal Register notice announcing EPA's regulatory interpretation. If the Agency decides that the exemption in § 261.4 was so vague or ambiguous that facilities in the position of the ABC Company could not reasonably have been expected to know that they were required to notify and submit a permit application, it will (1) include as part of its interpretation a formal Agency determination that those facilities were not required to notify and (2) set a new deadline by which those facilities must submit a complete permit application if they wish to qualify for interim status. Thus, if the ABC Company submits a complete application by the new

[6] The same reasoning applies to facilities which commenced construction by November 19, 1980.

deadline, its treatment facility will have qualified for interim status.

On the other hand, if EPA decides that the regulation was not vague or ambiguous or that Agency's resolution of ambiguities in the regulation does not affect facilities in the position of the ABC Company, it will not modify existing filing and compliance dates for those facilities. In this situation, the treatment facility cannot qualify for interim status because it has not submitted a timely notification and permit application.

VI. Miscellaneous Issues

A. Protective filings.

We have been advised that a number of facilities which are not now subject to EPA's hazardous waste regulations have filed "protective" notifications and permit applications to comply with EPA's May 19, 1980, Part 122 regulations and thus assure that they will be able to obtain interim status in the future (if necessary). Many of these filings may not be necessary under today's revised regulations.

We urge facilities which have filed unnecessary notifications or permit applications to advise the EPA Regional Office. This will help assure that our list of existing hazardous waste management facilities is accurate for enforcement and other purposes.

B. Units within existing facilities.

Section 122.3 of EPA's May 19, 1980, regulations defines the term "hazardous waste management facility" to include sites consisting of several operational units which handle hazardous waste. A facility, for example, may consist of two hazardous waste storage facilities, a hazardous waste landfill and a hazardous waste incinerator.

Section 122.23(c) restricts the modifications which may be made during interim status to the design capacity of an existing facility and to the processes used by the facility to treat, store or dispose of hazardous waste. EPA has been asked whether, when an individual unit in an interim status facility later qualifies for interim status, that constitutes a "change" in existing design capacity or processes and, if so, whether that change would be subject to the restrictions set forth in § 122.23(c).

The restrictions on modifications in § 123.23(c) are intended to prevent interim status facilities from making major changes in their existing operations which either would be tantamount to the construction of a new facility or should ideally be made after an individual permit is issued. *See* 45 FR 33324 (May 19, 1980). They are not intended to restrict the number of individual units within those facilities which can qualify for interim status. Thus, EPA would not consider the fact that an individual unit within a facility has independently qualified for interim status (or is operating under an ISCL or compliance order, as discussed above) to be a "change" to the facility subject to the restrictions of § 122.23(c). The individual unit would, of course, be subject to those restrictions if the facility sought to enlarge the design capacity of the unit or modify the processes used by the unit to handle hazardous waste.

VII. Interim Final Regulations and Effective Date

A. Interim final regulations.

EPA has determined under Section 553 of the Administrative Procedure Act, 5 U.S.C. § 553, that there is good cause for promulgating these amendments without prior notice and comment. As discussed above, EPA's regulations defining when a facility can obtain interim status have erroneoulsy led many facilities to believe that unless they file a permit application by November 19, 1980, they will never be able to obtain interim status. We think it is essential to correct this error before November 19, 1980, or else a significant number of facilities will be filing unnecessary permit applications on November 19, 1980. Readers will have ample opportunity (ninety days) to comment on these amendments before they are issued in "final final" form.

B. Effective date.

Section 3010(b) of RCRA requires that revisions to "regulations * * * respecting * * * requirements [for] permits * * * shall take effect on the date six months after the date of * * * revision." We do not think a literal application of this requirement would make sense in this case. The purpose of Section 3010(b) is to allow persons handling hazardous waste sufficient lead time to prepare to comply with major new regulatory requirements. Delaying the effective date of amendments which reduce existing regulatory requirements is not necessary to carry out this objective. Furthermore, for the reasons stated above, EPA believes an effective date of six months after promulgation would be counterproductive since much of the unnecessary regulatory burden which these amendments seek to avert will already have been imposed. We are therefore making these amendments effective on November 19, 1980, the effective date of the remainder of EPA's May 19, 1980, hazardous waste regulations.

Dated: November 14, 1980.

Douglas M. Costle,

Administrator.

Title 40 of the Code of Federal Regulations is amended as follows:

1. Section 122.22 is amended by redesignating paragraphs (a)(2) and (a)(3) as paragraphs (a)(4) and (a)(5) respectively, and revising paragraph (a)(1) and adding new paragraphs (a)(2) and (a)(3) to read as follows:

§ 122.22 Application for a permit.

* * * * *

(a) *Existing HWM facilities.* (1) Owners and operators of existing hazardous waste management facilities must submit Part A of their permit application to the Regional Administrator no later than (i) six months after the date of publication of regulations which first require them to comply with the standards set forth in 40 CFR Parts 265 or 266, or (ii) thirty days after the date they first become subject to the standards set forth in 40 CFR Parts 265 or 266, whichever first occurs. [Comment: For facilities which must comply with Part 265 because they handle a waste listed in EPA's May 19, 1980, Part 261 regulations (45 FR 33006 et seq.), the deadline for submitting an application is November 19, 1980. Where other existing facilities must begin complying with Parts 265 or 266 at a later date because of revisions to Parts 260, 261, 265, or 266, the Administrator will specify in the preamble to those revisions when those facilities must submit a permit application.]

(2) The Administrator may by publication in the Federal Register extend the date by which owners and operators of specified classes of existing hazardous waste management facilities must submit Part A of their permit application if he finds that (i) there has been substantial confusion as to whether the owners and operators of such facilites were required to file a permit application and (ii) such confusion is attributable to ambiguities in EPA's Parts 260, 261, 265, or 266 regulations.

(3) The Administrator may by compliance order issued under Section 3008 of RCRA extend the date by which the owner and operator or an existing hozardous waste management facility must submit Part A of their permit application.

* * * * *

2. Section 122.23 is amended by revising paragraph (a)(1) to read as follows:

§ 122.23 Interim status.

(a) * * *

(1) Complied with the requirements of Section 3010(a) of RCRA pertaining to notification of hazardous waste activity. [Comment: Some existing facilities may not be required to file a notification under Section 3010(a) of RCRA. These facilities may qualify for interim status by meeting paragraph (a)(2) of this Section.]

* * * * *

These amendments are issued under the authority of Sections 1006, 2002(a) and 3005 of the Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act of 1976 (RCRA), as amended, 42 U.S.C. 6905, 6912(a) and 6925.

[FR Doc. 80-36133 Filed 11-18-80; 8:45 am]
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ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 261

[FRL 1471-3]

Hazardous Waste Management System: Identification and Listing of Hazardous Waste

AGENCY: Enviromental Protection Agency.

ACTION: Final rule, interim final rule, and request for comments.

SUMMARY: Subtitle C of the Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act of 1976, as amended ("RCRA"), requires the Environmental Protection Agency ("EPA") to promulgate regulations establishing a Federal hazardous waste management system. The keystone of Subtitle C is Section 3001, which requires EPA to identify the characteristics of and to list those solid wastes which must be managed as hazardous wastes under that system.

This regulation is the first phase of EPA's implementation of Section 3001. It identifies four characteristics of hazardous waste to be used by persons handling solid waste to determine if that waste is a hazardous waste. In addition, it lists 85 process wastes as hazardous wastes and approximately 400 chemicals as hazardous wastes if they are discarded. Persons who generate, transport, treat, store or dispose of hazardous wastes identified or listed in this regulation must comply with all applicable requirements of Parts 122, 124, and 262 through 265 of this Chapter and the notification requirements of Section 3010 of RCRA.

In addition to identifying and listing hazardous wastes, this regulation also sets forth the criteria used by EPA to identify characteristics of hazardous wastes and to list hazardous wastes.

DATES:

Effective Date: These regulations, in the form published today, complete EPA's initial rulemaking on the subjects covered and are final agency action. They become effective on November 19, 1980, which is six months from the date of promulgation as Section 3010 requires. Today's promulgation begins the various schedules provided by RCRA for filing notifications and permit applications, and for States to apply for interim authorization.

Comment Dates: EPA will accept public comments on these regulations as follows:

Regulation and Deadline for Submission of Comments

Final regulations—technical errors only (*e.g.*, typographical errors, inaccurate cross references); July 18, 1980.
Use, re-use, recycling and reclamation of wastes (see section IV.B. of the preamble and § 261.4(c) of the regulations); August 18, 1980.
Interim final regulations (§§ 261.2, 261.4(a)(1) and 261.11, Subpart D and Appendix VIII); July 18, 1980.

Public Meetings: EPA will hold three all-day public meetings each beginning at 9 a.m. on the following dates:

May 30, 1980—San Francisco, California.
June 2, 1980—Washington, D.C.
June 6, 1980—Chicago, Illinois.

ADDRESSES: Comments on interim final portions should be sent to Docket Clerk [Docket No. 3001], Office of Solid Waste (WH-562), U.S. Environmental Protection Agency, 401 M Street, S.W., Washington, D.C. 20460.

Public Docket: The public docket for this regulation is located in Room 2711, U.S. Environmental Protection Agency, 401 M Street, S.W., Washington, D.C., and is available for viewing from 9 a.m. to 4 p.m., Monday through Friday, excluding holidays. Among other things, the docket contains background documents which explain, in more detail than the preamble to this regulation, the basis for many of the provisions in this regulation.

Copies of Regulations: Single copies of this regulation will be available approximately 30 days after date of publication from Ed Cox, Solid Waste Information, U.S. Environmental Protection Agency, 26 W. Saint Clair Street, Cincinnati, Ohio 45268, (513) 684-5362. Multiple copies will be available from the Superintendent of Documents, Washington, D.C. 20402.

Public Meetings: EPA will hold three all-day public meetings, each beginning at 9 a.m., to answer questions about all of its final and interim final Subtitle C regulations. The dates and locations of these meetings are:

May 30, 1980—Sheraton Palace Hotel, 639 Market Place, San Francisco, California.
June 2, 1980—HEW Auditorium, HEW North Building, 330 Independence Avenue, S.W., Washington, D.C.
June 6, 1980—Palmer House Hotel, 17 East Monroe Street, Chicago, Illinois.

FOR FURTHER INFORMATION CONTACT: For general information, contact Alan S. Corson, Office of Solid Waste, U.S. Environmental Protection Agency, 401 M Street, S.W., Washington, D.C. 20460, (202) 755-9187. For information on implementation, contact:

Region I, Dennis Huebner, Chief, Radiation, Waste Management Branch, John F. Kennedy Building, Boston, Massachusetts 02203 (617) 223-5777.
Region II, Dr. Ernest Regna, Chief, Solid Waste Branch, 26 Federal Plaza, New York, New York 10007, (212) 264-0504/5.
Region III, Robert L. Allen, Chief, Hazardous Materials Branch, 6th & Walnut Streets, Philadelphia, Pennsylvania 19106, (215) 597-0980.
Region IV, James Scarbrough, Chief, Residuals Management Branch, 345 Courtland Street, N.E., Atlanta, Georgia 30365, (404) 881-3016.
Region V, Karl J. Klepitsch, Jr., Chief, Waste Management Branch, 230 South Dearborn Street, Chicago, Illinois 60604, (312) 886-6148.
Region VI, R. Stan Jorgensen, Acting Chief, Solid Waste Branch, 1201 Elm Street, First International Building, Dallas, Texas 75270, (214) 767-2645.
Region VII, Robert L. Morby, Chief, Hazardous Materials Branch, 324 E. 11th Street, Kansas City, Missouri 64106, (816) 374-3307.
Region VIII, Lawrence P. Gazda, Chief, Waste Management Branch, 1860 Lincoln Street, Denver, Colorado 80203, (303) 837-2221.
Region IX, Arnold R. Den, Chief, Hazardous Materials Branch, 215 Fremont Street, San Francisco, California 94105, (415) 556-4606.
Region X, Kenneth D. Feigner, Chief, Waste Management Branch, 1200 6th Avenue, Seattle, Washington 98101, (206) 442-1260.

For further information about these meetings, contact Geraldine Wyer, Public Participation Officer, Office of Solid Waste (WH-562), U.S. Environmental Protection Agency, Washington, D.C. 20460, (202) 755-9157.

SUPPLEMENTARY INFORMATION:

I. Introduction

The improper management of hazardous waste is probably the most serious environmental problem in the United States today. EPA estimates that in 1979 the United States generated almost 60 million metric tons of hazardous waste, but that only 10 percent of this waste was managed in an environmentally sound manner. The remainder—over 50 million tons—was transported, treated, stored or disposed of in a manner which potentially threatens human health and the environment.

This mismanagement has tragic consequences. EPA has on file hundreds of cases of damage to human health or the environment resulting from the

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indiscriminate dumping or other improper management of hazardous waste. The vast majority of these cases involve the pollution of groundwater—the source of drinking water for about half the nations's population—from the open dumping of wastes or from improperly operated landfills and surface impoundments. In many of these cases, groundwater supplies were so badly contaminated with toxic or cancer-causing chemicals and heavy metals that residents in the area had to obtain drinking water from other sources. In other more tragic cases, residents were not aware of the contamination, continued to drink the water, and suffered serious health effects.

Groundwater pollution is not the only problem posed by improper hazardous waste management. EPA's damage case file also includes incidents where the improper disposal of hazardous waste has polluted streams, rivers, lakes and other surface waters, killing aquatic life, destroying wildlife, and denuding areas of vegetation. In other cases, the vaporization of volatile organic materials from wastes which were improperly disposed of has been linked to respiratory illnesses, skin diseases (including skin cancer) and elevated levels of toxic materials in the blood and tissues of humans and domestic livestock. In still other cases, the mismanagement of hazardous waste has resulted in fires, explosions or the generation of toxic gases which have killed or seriously injured workers and firemen.

It is against the backdrop of such incidents that Congress enacted the Resource Conservation and Recovery Act of 1976, as amended, 42 U.S.C. 6901 *et seq.* ("RCRA" or "Act"). Although the Act has several objectives (including the promotion of resource recovery and the proper management of non-hazardous solid waste), Congress' "overriding concern" (H.R. Rep. No. 94–1461, 94th Cong., 1st Sess. 3 (1976) ("H.R. Rep.")) in enacting RCRA was to establish the statutory framework for a national system which would insure the proper management of hazardous waste.

That framework is contained in Subtitle C of the statute. It requires EPA to establish a Federal "cradle to grave" management system for hazardous waste, including standards for generators of hazardous waste (Section 3002), standards for transporters of hazardous waste (Section 3003), standards and permit requirements for owners and operators of facilities that treat, store or dispose of hazardous waste (Sections 3004 and 3005) and a manifest system which will track the movement of the waste from the point of generation to the point of disposal (Sections 3002, 3003 and 3004). Under Section 3006 of Subtitle C, EPA may authorize States to operate a State hazardous waste program in lieu of the Federal program if they meet certain requirements.

The centerpiece of this system is Section 3001 of Subtitle C, which requires EPA to identify and list those solid wastes which must be managed as hazardous wastes according to the standards established by EPA under Sections 3002 through 3005. This identification is a two-part process. First, EPA is required to develop criteria for identifying the characteristics of hazardous waste and for listing hazardous wastes (Section 3001(a)). Then, based on these criteria, EPA must actually identify specific characteristics of hazardous waste and list particular hazardous wastes (Section 3001(b)).

EPA began developing regulations to implement these requirements shortly after RCRA was enacted. During 1977 and 1978, the Agency met extensively with experts in hazardous waste management, States, Federal agencies, industry, environmental groups and other individuals and organizations to discuss possible criteria, and to obtain suggestions for characteristics and listed wastes. Drafts of proposed regulations were developed and widely disseminated to the public for comment. Based on these meetings, several public hearings, written comments on its draft regulations and information collected by EPA, a final proposed regulation was developed and published in the Federal Register on December 18, 1978 (43 FR 58949–58968).

EPA held five public hearings on its December 18, 1978, proposal (43 FR 58946). Several hundred persons testified at these hearings. In addition, EPA received an estimated 1,000 sets of written comments on its proposed Section 3001 regulations.

Based in part on these comments, EPA proposed a supplemental list of hazardous wastes on August 22, 1979 (44 FR 49402–49404). The Agency also held a hearing on this proposal and received a number of written comments.

The Agency has carefully considered the comments received on its December 18, 1978, and August 22, 1979, proposals, as well as comments received on a number of reports, studies and other documents associated with its Section 3001 rulemaking which were noticed for public comment after the close of the comment period on the proposed regulations,[1] in developing the final and interim final regulations published today.

II. Organization of Regulations and Preamble

In response to comment that its proposed Subtitle C regulations were difficult to read, EPA has totally reorganized them. Regulations implementing Section 3001, which were originally proposed as Subpart A of Part 250 of Title 40 of the Code of Federal Regulations have been recodified as Part 261 of Title 40. Similar changes have been made in the remainder of the Subtitle C regulations. The following table shows the correlation between the statutory provisions of Subtitle C and the sections of EPA's proposed and final regulations which implement those provisions:

Statutory section	Proposed rule	Final rule
General provisions and definitions.	§§ 250.12(c), 250.11, 250.21, 250.31, 250.41	Part 260.
3001	§§ 250.10 (a) and (b), 250.12 through 250.15, 250.29(a)	Part 261.
3002	§§ 250.22 through 250.28, 250.29(b)	Part 262.
3003	§§ 250.32 through 250.38	Part 263.
3004 (permitting standards).	§§ 250.4 (a), (b), (d), and (e), 250.42 through 250.48–5	Part 264.
3004 (interim status standards).	§§ 250.40(c), 250.48	Part 265.
3005	Parts 122 and 124	Parts 122 and 124.
3006	Part 123, §§ 250.10(c), 250.20(b), 250.30(d)	Part 123.
3010	Part 250, Subpart E	45 FR 12746 (Feb. 26, 1980).

The recodification of EPA's Section 3001 regulations from a Subpart of Part 250 to Part 261 has necessitated some major reorganization of those regulations. Proposed § 250.10 is now largely incorporated in Subpart A. The purpose of this subpart is to tell the reader what materials are subject to the Federal hazardous waste management system established by Parts 262 through 265, 122 and 124. It contains a definition of solid waste, a definition of hazardous waste, and a list of materials which are excluded from all or a portion of the requirements in those parts. It also designates the points in the waste generation and handling process when a hazardous waste must begin to be managed in accordance with EPA's Parts 262 through 265 standards and explains when a hazardous waste ceases to be a hazardous waste. Finally, it establishes special requirements for small quantity generators of hazardous waste (originally contained in § 250.29(a) of EPA's proposed generator standards).

[1] See 44 FR 49277, 49278 (August 22, 1979); 44 FR 56724 (October 2, 1979); 44 FR 76827 (December 28, 1979); 45 FR 2059 (January 10, 1980); 45 FR 14232 (March 5, 1980).

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Subpart B (§§ 250.12 and 250.14 of the proposed rule) establishes the criteria used by EPA in identifying the characteristics of hazardous waste and listing particular hazardous wastes. Subpart C (proposed § 250.13) contains the hazardous waste characteristics which EPA has identified and Subpart D (proposed § 250.14) the particular hazardous wastes which EPA has listed to date based on those criteria. As noted in the definition of hazardous waste in Subpart A, these two subparts are the cornerstone for the Federal hazardous waste management system because they identify which solid wastes will be regulated as hazardous wastes under that system.

The following table provides a rough correlation between the various provisions of EPA's proposed and final Section 3001 regulations:

Subject	Proposed rule	Final rule
Purpose of regulations	§ 250.10(a)	§ 261.1.
General definitions	§ 250.11	§§ 260.10, 261.2, 261.3.
Definition of solid waste	§ 250.10(b)	§ 261.2.
Definition of hazardous waste	§ 250.10(d)(1)	§ 261.3.
Exclusions	§§ 250.10(d)(2), 250.11(a)(7), 250.20(c)(4)	§ 261.4.
Small quantity generators	§ 250.29(a)	§ 261.5.
Criteria	§§ 250.12 (a) and (b), 250.14	Subpart B.
For identifying characteristics	§ 250.12(a)	§ 261.10.
For listing	§§ 250.12(b), 250.14	§ 261.11.
Characteristics	§ 250.13	Subpart C.
Ignitability	§ 250.13(a)	§ 261.21.
Corrosivity	§ 250.13(b)	§ 261.22.
Reactivity	§ 250.13(c)	§ 261.23.
Toxicity	§ 250.13(d)	§ 261.24.
Lists	§ 250.14	Subpart D.
Nonspecific sources	§ 250.14(a)	§ 261.31.
Specific sources	§ 250.14(b)(2)	§ 261.32.
Discarded chemicals	§ 250.14(a)	§ 261.33.
Procedures for exempting listed wastes from particular generating facilities.	§ 250.15	§§ 260.20, 260.22.
Petitions:		
Revision of list and characteristics.	§ 250.12(c)	§ 260.20.
Equivalent methods	§§ 250.13(a)(1)(i), (a)(2), (b)(1)(i), (b)(1)(ii), (d)(2)(ii)	§§ 260.20, 260.21.

Except for some broad issues which cut across all the Section 3001 regulations (and in some cases EPA's Section 3002 through 3004 standards), the preamble to this regulation will generally follow the structure of the final regulations. It will discuss some of the more significant issues raised during the public comment period on EPA's proposed regulations and the revisions made in response to those comments. Background documents which address these comments and revisions and explain the basis for these regulations in more detail are available as noted above.

III. General Issues.

A. Phasing of Regulations

Several months prior to the proposal of EPA's Section 3001 regulations, the State of Illinois, several environmental groups, and a solid waste trade association sued the Agency under Section 7004 of RCRA to obtain a court order requiring EPA to promulgate final regulations under Section 3001 (and other sections of the Act) by a date certain. On January 3, 1979, the court issued an order directing EPA to issue final regulations under Section 3001 by December 31, 1979. *State of Illinois* v. *Costle*, 12 ERC 1597 (D.D.C. 1979). This order was subsequently modified to require EPA to use its best efforts to meet an April 1980, promulgation date (Order of December 18, 1979).

Given our limited resources, it has not been possible both to meet this deadline and to make final decisions on every segment of the very ambitious regulatory program which the Agency proposed on December 18, 1978, and August 22, 1979. We have tried to prioritize our efforts, insofar as possible, to deal with the most serious environmental problems first (*e.g.*, ones that are national in scope, are not dealt with by other State or Federal regulations) and to finalize those portions of the proposed regulations which must be issued if a core hazardous waste management program is to go into effect.

For these reasons, the final regulation published today defers final action on a number of aspects of the proposed regulation, including integrating the regulation of polychlorinated biphenyls ("PCBs") under RCRA and the Toxic Substances Control Act ("TSCA"); fully regulating wastes that are used, re-used, reclaimed or recovered; and a number of proposed listed wastes. To assist States in developing hazardous waste programs under Section 3006 of RCRA and the regulated community in preparing to comply with future regulatory requirements, EPA is providing the following information on its current schedule for acting on these deferred portions:

1. *PCB Integration.* On February 17, 1978 (43 FR 7150) EPA issued final regulations under Section 6(e) of TSCA establishing storage, landfilling, incineration, packaging, marking, placarding and recordkeeping requirements for waste PCBs. Revisions to these regulations were published on May 31, 1979 (44 FR 31514).

Because of the potential overlap between the RCRA hazardous waste management standards and the TSCA PCB marking and disposal regulations, in its proposed Section 3004 regulations, EPA requested comment on five alternative ways of integrating the two sets of regulations (43 FR 58993–58994). *See also* 43 FR 31539 (May 31, 1979). Based on the comments received, and EPA's own review of the two sets of regulations, the Agency has made a tentative decision that the best way to regulate PCBs is to merge the TSCA PCB rules into the final RCRA regulations.

Unfortunately, it has not been possible to complete this task to date. Both rules are lengthy and complicated, and must be carefully coordinated to avoid regulatory loopholes and disruption of the ongoing TSCA PCB program. Completing this coordination by April of this year would have required diverting personnel from the task of finalizing the RCRA hazardous waste program. EPA decided that it made little sense to focus its limited resources on revising an existing regulatory program when so much work needed to be done to develop a new one.

EPA expects to complete the task of integrating the RCRA regulations and TSCA PCB rules by the fall of 1980, and to amend Parts 261 through 265 to bring waste PCBs into the Subtitle C system at the same time that it promulgates its final Phase II Section 3004 standards. In the interim, the handling and disposal of waste PCBs will continue to be regulated under TSCA and other EPA statutes.

2. *Regulation of Wastes Which Are Used, Re-Used, Recovered or Reclaimed.* As discussed in some detail in section IV.B. of this preamble, EPA will be deferring the promulgation of standards to regulate hazardous waste recycling and reclamation operations and the actual use and re-use of hazardous waste until beginning in the fall of 1980.

3. *Radioactive Wastes.* In its December 18, 1978, regulation, EPA proposed to list the following radioactive materials as hazardous wastes: waste rock and overburden from uranium mining; overburden and slimes from phosphate surface mining; waste gypsum from phosphoric acid production; and slag and fluid bed prills from elemental phosphorous production (§ 250.14(b)(2)). At the same time, it proposed to establish special management standards for these wastes

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which would regulate their disposal (§§ 250.46–2 and 250.46–4) and prevent their being used as fill in land used for residential development or in building products unless radon emissions and gamma radiation could be reduced to specified levels (§§ 250.46–3(c) and 250.46–4(b)). The purpose of these latter use restrictions was to reduce the amount of radiation to which persons living or working in buildings constructed either on land where these wastes were deposited or with materials containing these wastes would be exposed.

In February, 1980, the House of Representatives passed a bill which would amend RCRA to temporarily suspend EPA's authority to regulate these wastes under Subtitle C except as necessary:

> to prevent radiation exposure which presents an unreasonable risk to human health from the use in construction or land reclamation (with or without revegetation) of solid waste from the extraction, beneficiation or processing of phosphate rock or the extraction of uranium ore (Section 3(d) of H.R. 3994).

Because Congressional action on this provision is imminent (see section III.E. of this preamble), we are deferring the development of final or interim final regulations establishing a criterion for listing radioactive wastes, listing radioactive phosphate and uranium wastes, and establishing management standards for those wastes until Congress has spoken. Assuming Congress acts by the end of the summer, we would hope to promulgate regulations for radioactive wastes by the fall of 1980. This would give EPA some time to better refine its final standards and conform them to any legislative amendments, to fully respond to comments on its proposal and to coordinate its final standards with its other regulations on used, re-used, recovered and reclaimed wastes (see section IV.B.4. of this preamble).

Although the use of radioactive mining wastes in residential landfill and construction materials may pose a serious health hazard, this hazard is limited to approximately half a dozen states where these wastes are generated. Thus, in contrast with many of the wastes covered by today's regulation, which are more ubiquitous and are frequently transported across state lines, these wastes can probably be regulated effectively at the state level pending EPA action.

4. *Infectious Wastes.* In its proposed regulation, EPA listed as hazardous wastes infectious wastes generated by certain departments in health care facilities and veterinary hospitals, by laboratories handling etiologic agents, and by sewage treatment facilities, unless the wastes were sterilized or incinerated in accordance with the methods prescribed in Appendix VI or § 250.14(b)(1)(iii).

EPA received a number of comments on this proposal, particularly the absence of an infectious waste listing criterion, the breadth of sources covered and the Agency's proposed treatment methods. Although EPA has completed its evaluation of these comments and has developed a criterion for listing infectious wastes and refined its proposed list, it has not been able to complete the work necessary to identify the treatment methods it would allow to be used to exempt these wastes from regulation. Because logic dictates that these three parts of the regulation should be promulgated simultaneously, EPA is deferring action on infectious wastes until it can finish this last segment. It expects to complete this task by the fall of 1980.

In the meantime, none of these wastes will go entirely unregulated. Many will be subject to State disposal regulations or State laws governing hospitals and other health care facilities. Because of public health considerations, the operations of these facilities are generally closely scrutinized by State and local officials. In addition, during this interim period, these wastes will be subject to the "open dumping" prohibition under Section 4005(c) of RCRA. EPA's regulations defining those practices which constitute "open dumping" expressly prohibit the land disposal of infectious wastes unless measures have been taken to minimize disease vectors (40 CFR 257.3–6).

5. *Other Listed Wastes.* The other waste streams on which EPA has deferred final action fall into four basic categories: Wastes which EPA intends to list as hazardous but for which revised background documents could not be completed in time for promulgation as part of this regulation; wastes for which EPA currently has insufficient data to make a final determination that the wastes are hazardous; wastes which available data suggests are not hazardous; and wastes which are no longer produced.

It is EPA's intent to amend this regulation to add most of the wastes included in the first category of deferred wastes by June 15, 1980 (see Appendix A) and the remainder by fall, 1980 (see Appendix B). Persons handling wastes identified or listed in both this regulation and Appendix A may, if they desire, save themselves the expense and inconvenience of a second notification under Section 3010 of RCRA by including Appendix A wastes in the notification required to be filed on August 18, 1980. Owners and operators of facilities which treat, store or dispose of the wastes in both categories may similarly avoid having to amend their Part A permit application (*see* 40 CFR 122.22) by including Appendix A wastes in their initial application.

EPA will take action on the second category of deferred wastes—wastes for which EPA currently has insufficient data to make a final listing determination—as soon as it is able to obtain the information necessary to make those decisions. To enable the Agency to gather such information without the *ex parte* contact restraints normally imposed on post-proposal rulemaking activities, EPA will in the future be reopening the comment period on its December 18, 1978, proposal to list these wastes. EPA does not plan on taking any further action on the final two categories of wastes.

EPA does not believe that phasing the promulgation of Section 3001 in this fashion will frustrate the objectives of the statute or unduly complicate implementation of the hazardous waste program. Sections 2002(b), 3001(c) and 7002 of the Act clearly contemplate that regulations under Section 3001 will be periodically expanded or otherwise revised. *See also* H.R. Rep. at 25. The preview of the content and timing of future regulations provided above should help to minimize the disruption that phased promulgation of major portions of the Section 3001 regulations might cause for the regulated community and for States which are attempting to formulate their hazardous waste programs. In light of these considerations and the pressing need to begin implementation of a national hazardous waste program as soon as possible, EPA sees no reason to postpone publication of those portions of its Section 3001 regulations which it is ready to finalize today pending a final decision on the remaining portions. Such an approach would cause an unwarranted delay in the commencement of the program.

B. Interim Final Provisions

The following portions of this regulation are being published as "interim final" regulations: the lists of hazardous wastes (Subpart D), the criteria for listing hazardous wastes (§ 261.11), and the definitions of "solid waste" (§ 261.2) and "domestic sewage" (§ 261.4(a)). This means that, although these regulations are promulgated for purposes of the 90-day notification requirement under Section 3010(a), the six-month effective date under Section 3010(b) and the 90-day petition deadline under Section 7006, the public will have an additional opportunity to comment on them before they are published as "final final" regulations.

The lists of hazardous wastes under Subpart D are being published in interim final form to allow the public an opportunity to comment on the

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additional data EPA has collected since the close of the public comment period to support the listing of these wastes. Because EPA received comments on only approximately twenty-five percent of the wastes listed in its December 18, 1978, and August 22, 1979, proposals; the Agency does not anticipate receiving very many comments on its revised support documents or having to make major changes in the list of wastes published today before issuing a "final final" regulation.

The criteria for listing (§ 261.11) have been substantially revised in response to public comment. While EPA believes that these changes are a logical outgrowth of the public comment period, it also recognizes that they would probably benefit from the fine tuning that an additional round of public comment would provide. For this reason, the Agency is also publishing § 261.11 in interim final form.

EPA's proposed definition of "solid waste" has been clarified and a new definition of "domestic sewage" has been added in response to public comment. Because of the difficulties inherent in devising workable, broadly applicable definitions of these terms, and their potential regulatory impact, we would like to obtain some additional comment on them before publishing them in final form.

It is EPA's intent to act on all interim final portions of these regulations prior to the compliance date of Parts 262 and 263 and the effective date of Parts 264 and 265.

C. Data Base for Regulations

EPA received a number of comments on its December 18, 1978, and August 22, 1979, proposals urging it to postpone the promulgation of final regulations under Section 3001 (and the rest of Subtitle C) until it could develop an extensive data base on hazardous waste characteristics and individual hazardous wastes, including extensive industry-specific waste studies, risk assessments, and in-depth waste analyses.

In the final regulation published today, the Agency has made every attempt to base its rules on the data available on waste generation, composition and management, on the potential health and environmental hazards posed by waste constituents, and on exposure pathways. It has also exercised its best efforts to use good scientific analysis and judgment to supplement available data and to respond to comments received on its proposed regulation. In some instances, within time and budget constraints, EPA has undertaken additional waste analyses and testing.

While the acquisition of more information is often a scientific objective, Section 3001 requires the Agency to establish regulations where it has limited, but meaningful data. The broad discretion provided to EPA under the statute, the tight statutory promulgation deadlines coupled with Congress' acknowledged recognition of the lack of available data on hazardous waste management (*see* H.R. Rep. at 26), and the critical nature of the hazardous waste problem (*see* H.R. Rep. at 3, 4, 11, 17–23; S. Rep. No. 94–988; 94th Cong. 2d Sess. at 3, 4 ("S. Rep.")) all support EPA's going forward with a regulatory program even though its data base and regulations are less than perfect. The courts have repeatedly sanctioned this approach under other EPA statutes where, as here, the Agency is implementing a complex program in an area "fraught with scientific uncertainty" where Congress has directed EPA "to act quickly and decisively despite the lack of exact data". *Weyerhaeuser Company v. Costle*, 590 F.2d 1011, 1025–1020 (D.C. Cir. 1978). *See also Ethyl Corp. v. EPA*, 541 F.2d 1, 24 (D.C. Cir. 1976); *Society of Plastics Industries, Inc. v. OSHA*, 509 F.2d 1301, 1308 (2d Cir.), *cert. denied*, 421 U.S. 992 (1975).

We are committed to improving our data base for these regulations and refining them in the future. The Agency has recently instituted a multi-year, multi-million dollar program to survey specific industries, and collect waste samples and other information which will expand its data base on the hazardous waste generated by these industries. EPA also anticipates that implementation of the Subtitle C regulations—particularly the waste testing requirements—will, over the next several years, substantially increase the national pool of information on hazardous wastes. The petitioning procedures set forth in §§ 260.20 through 260.22 should provide yet another revenue of information which can be used to improve this regulation in the future.

D. Developing a National Hazardous Waste Management System

EPA received a number of comments on its proposed regulations identifying particular wastes or management situations where a strict application of EPA's proposed regulations would result in overregulation of the wastes at issue. For exampe. commenters identified several wastes which exhibited EPA's proposed characteristics but which would not normally be thought of as hazardous, and described situations where the application of EPA's proposed Section 3004 standards was arguably unnecessary.

In the regulations promulgated today, particularly the Part 264 and 265 regulations, we have tried to address some of these criticisms, to the extent feasible, and to achieve a better balance between the often competing goals of regulatory specificity and broad applicability. Where we think specific standards are appropriate, we have promulgated specific standards; where more flexibility is required, we have either used broader standards or used specific standards and articulated exceptions or provided for individual variances. We have done our best to lay the groundwork for a hazardous waste management system which is workable and understandable, and which provides appropriate regulation of most hazardous wastes identified or listed in this Part.

This system may not work perfectly for every waste, however. It may overregulate in some instances and underregulate in others. This is an unavoidable consequence of attempting to develop a national hazardous waste managment program which has to regulate thousands of wastes in literally hundreds of thousands of individual transportation, treatment, storage and disposal situtations. To develop a program which would provide precisely the right degree of environmental and health protection in each management situation would require regulations that would be either so vague that they would offer little guidance to the regulated community and would be largely unenforceable or so extensive and so encumbered with provisions for case-by-case variances that they would be an administrative nightmare for both EPA and the hundreds of thousands of persons and facilities which are potentially subject to them.

We think that the system we have promulgated today, although not perfect in all aspects, is within the scope of what Congress intended when, in 1970, it directed EPA to establish hazardous waste management standards which were "necessary to protect health and the environment" in eighteen months. We do not think that Congress expected EPA to develop a program which it could not implement or enforce or to indefinitely postpone the issuance of regulations until it could develop standards which would provide the degree of precision desired by some commenters. Neither of these approaches would provide any health or environmental protection at all.

In these regulations we have tried to strike a balance between these two extremes. Where we have failed to achieve the right balance, we suspect that this will become apparent in the early stages of implementing the

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program. If there are situations where a strict application of the standards contained in these rules would bring about a result which was obviously not intended, we would appreciate being advised of it so that we can take appropriate action. We are prepared to react to these problems with regulatory amendments, interpretive guidance and reasonable implementation and enforcment, as appropriate.

E. Pending Legislative Amendments

The United States Senate and House of Representatives have each recently passed a bill to reauthorize and amend RCRA (S. 1156 and H.R. 3994). Both bills contain amendments to Section 3001 which, if enacted, would repeal or temporarily suspend EPA's authority to regulate certain utility and energy development wastes as hazardous wastes under Subtitle C. These bills are now awaiting action by a conference committee. Because it appears likely that Congress will act before November 19, 1980 to exempt these wastes, EPA has temporarily excluded them from this regulation (*see* § 261.4(b)). This exclusion will be revised, if necessary, to conform to the legislation which is ultimately enacted.

F. Consideration of Economic Impact of the Development of the Regulations

In its proposed regulations, EPA expressed uncertainty on the appropriate role that cost considerations and economic impact should play in the development of the hazardous waste regulations:

> It is also not clear to what extent RCRA allows economic impact to be taken into account, since the Act is silent on this point. Thus, the Agency is faced with the problem of how to deal with these potential impacts with little economic data and without clear Congressional guidance. [43 FR 58971]

A variety of comments were received on this issue, expressing three predominant themes: (a) The Act and its legislative history require the Agency to analyze its regulations in terms of costs and benefits; (b) the legislative materials preclude any consideration of costs in the development of regulations; and, (c) EPA must prepare an economic impact analysis.

EPA has re-examined the legislative history of RCRA. Although the legislative history is sparse, it does contain sufficient indications of Congressional intent to lead the Agency to the conclusion that EPA may not consider cost burden upon industry in choosing the level of its standards. The Agency may, however, take cost considerations in account in order to select the most effective regulation among various alternatives that meet the statutory requirement of being "necessary to protect human health and the environment." In addition, the Agency may prepare economic analyses to supplement its regulations as an aid to congressional, intergovernmental, or public understanding of the regulatory program.

EPA disagrees with the position of several commenters that cost, or economic considerations more generally, must be a factor in EPA's decisions under Subtitle C. There is no explicit requirement in the Act directing EPA to consider costs in the development of its intitial regulations. The singular focus of protecting human health and the environment distinguishes RCRA from the other major pollution control statutes. For example, in developing effluent guideline limitations under the Clean Water Act, the Administrator is to consider, among other things, "the total cost of the application of technology in relation to the the effluent reductions to be achieved . . ." Section 304(b)(1)(B), 33 U.S.C. 1314(b)(1)(B). *See also* Section 304(b)(2)(B). The Clean Air Act also directs that in establishing new source performance standards for stationary sources of air pollution the Administrator should "consider the cost of achieving such emission reduction and any nonair quality health and environmental impact and energy requirements." Section 111(a)(1)(C), 42 U.S.C. 7211(a)(1)(C).

The silence of the statute itself appears especially significant because earlier drafts of the legislation had contained language which either explicitly called for considerations of cost or implicitly sanctioned such consideration. A draft bill for use by the relevant House Subcommittee would have required that hazardous waste regulations "shall be such as will minimize the risk of adverse effects on human health while taking to the greatest extent possible, into account the economic cost and benefits of achieving such standards." Section 351(e), Subcommittee on Transportation and Commerce, Draft of the Solid Waste Utilization Act (December 8, 1975). When this bill was redrafted for introduction to the House of Representatives as H.R. 14496, this provision calling for consideration of costs and benefits had been deleted. The House bill, however, required that hazardous waste regulations "reasonably protect" humon health and the environment. H.R. 14496, 94th Cong., 2d Sess., § 306 (1976). The legislative materials accompanying H.R. 14496 provided no guidance on what effect, if any, the draftsmen intended the potentially moderating phrase "reasonably protect" should have on the development of regulations. In the compromise bill reconciling the differences between the Senate and House bills, the adverb "reasonably" was deleted. In the debate in the House prior to the Act's passage there was no discussion of the effect of this deletion on the intended operation of the Act.

Congress was aware that the hazardous waste regulation would impose substantial costs on the regulated community. *See, e.g.,* H.R. Rep. at 4, S. Rep. at 4. Despite this recognition, Congress deliberately rejected provisions that would require consideration of cost burden on industry or to moderate the Act's environmental objectives. For these reasons, the Agency concludes that the Act prohibits it from considering such costs in the development of Subtitle C regulations as a basis for lessening the standards it considers necessary to ensure protection of human health or the environment.

The Agency has, however, considered cost-effectiveness in choosing among alternatives that meet the requirements of the statute. In addition, the Administrator may refer to other considerations such as energy or environmental impacts, and implementation and enforcement burdens. For instance, the information received or developed in the course of rulemaking on the cost implications of its proposed regulations may be used by EPA to determine the relative cost-effectiveness of various methods to implement a particular requirement. Information on economic impacts may also be useful in informing Congress about the implementation of the hazardous waste program, developing new legislative or Agency intitatives which might affect the regulatory program, and advising the public about the projected impacts of the program. *See Hercules, Inc. v. Environmental Protection Agency,* 598 F. 2d 91, 113 (D.C.Cir. 1978). EPA has prepared an economic impact analysis on the entire Subtitle C regulatory program. This analysis provides detailed information on the projected economic impacts of these regulations. The report should facilitate public understanding of the tosk that the Agency is undertaking.

G. Rulemaking Petitions

EPA's December 18, 1978, proposed Section 3001 regulations contained no special procedures for petitioning the Agency to identify a new characteristic or list a new hazardous waste, or to modify or revoke an existing

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characteristic or listing. They simply provided that a petition to identify a characteristic or list a solid waste as a hazardous waste would be granted if EPA found that the proposed characteristic or waste met EPA's criteria for characteristics or listing (proposed § 250.12(c)).

EPA received a number of comments urging it to establish standardized procedures for the submission and processing of petitions to modify its characteristics or list of wastes. Some of these commenters simply wanted to know how to file a petition and how EPA would act on it. Others insisted that EPA establish rulemaking procedures which complied with the Administrative Procedures Act, mistakenly thinking that because proposed § 250.12(c) did not articulate the procedures EPA would follow in acting on petitions, the Agency would grant petitions, thereby modifying its regulations, without going through normal rulemaking procedures.

To provide the guidance desired by the first set of commenters and to assuage the concerns of the second, we have included in Subpart C of Part 260 procedures for the submission and processing of petitions to add to, revoke or otherwise modify any of the Subtitle C hazardous waste regulations, including the hazardous waste characteristics and lists. This provision expressly requires that a tentative decision to grant a petition be made in the form of an advance notice of proposed rulemaking or a proposed regulation, thus starting the rulemaking process.

EPA received a number of comments suggesting that unless EPA specified the information to be contained in petitions to amend its characteristics or lists of hazardous wastes, petitioners would not know what type of data to submit to the Agency and that the Agency would have to expend a substantial amount of time reviewing incomplete petitions.

EPA agrees that this may have been a problem with its proposed regulation. The Agency's proposed criteria for listing were not particularly well-articulated. In addition, the background documents for characteristics and for individual wastes also failed, in some cases, to provide meaningful guidance as to the kinds of information which should be submitted in a rulemaking petition.

We think we have remedied most of these deficiencies in this regulation. In response to comment, we have substantially expanded the criteria for listing, so that the factors which EPA will be using in making a listing decision are much better stated. The background documents for both the characteristics and lists have been materially upgraded, so that they now provide a good model for rulemaking petitions. In short, we think the regulations published today, with their supporting materials, will enable petitioners to intelligently frame rulemaking petitions.

For this reason, EPA thinks it is probably unnecessary to establish detailed informational requirements for petitions. Moreover, developing a list of such requirements would be very difficult, because the types of data and degree of detail required will vary substantially from waste to waste and from characteristic to characteristic. If, in the future, EPA finds that most petitioners are submitting insufficient information, we will reconsider establishing more specific data requirements for these petitions.

EPA recognizes that some organizations—primarily environmental groups—may not have the skills, resources, or data collection authority to fashion rulemaking petitions which contain all of the information which EPA will need to make a decision to establish a new characteristic or list a new waste. If such petitions, although incomplete, appear to have merit, EPA will attempt to obtain the supplemental data necessary to make a tentative rulemaking determination. These organizations should recognize, however, that this will necessarily delay any final action on their petitions.

IV. Subpart A.

A. Section 261.1 (Purpose, Scope and Applicability)

Although this section is largely self-explanatory, two points regarding the function of EPA's Section 3001 regulation, which were apparently a source of misunderstanding during the comment period, are deserving of special attention.

First, the purpose of this regulation is to identify those wastes which, because of the hazards they may pose in transportation, treatment, storage or disposal, should be subject to appropriate management requirements under Subtitle C. It does not dictate how wastes should be managed (although it may identify properties of the waste which will affect management practices). Management standards and permitting requirements are imposed under Sections 3002 through 3005 and Section 3010.

Second, although this regulation limits what may be regulated as a "hazardous waste" under Sections 3002 through 3005 and 3010 of RCRA, it does not limit those materials which may be considered "hazardous wastes" under other sections of the statute, particularly Section 3007 (which authorizes EPA to obtain information on "hazardous waste" in order to develop regulations or enforce RCRA) and Section 7003 (which authorizes the Agency to institute civil actions to abate imminent and substantial hazards caused by "hazardous wastes"). Unlike Sections 3002 through 3004 and Section 3010, Congress did not confine the operations of Sections 3007 and 7003 to "hazardous wastes *identified or listed under this subtitle*" (emphasis added). To avoid future confusion on this point, EPA has stated it explicitly in § 261.1(b).

B. Section 261.2 (Definition of Solid Waste)

Because no material can be a "hazardous waste" without first being a "solid waste" (Section 1004(5)), what constitutes a "solid waste" is really the definitional starting point for the hazardous waste management system. Section 1004(27) of RCRA defines a solid waste as:

> any garbage, refuse, sludge from a wastewater treatment plant, water supply treatment plant or air pollution control facility and other discarded material, including solid, liquid, semisolid, or contained gaseous material resulting from industrial, commercial or mining and agricultural operations, and from community activities, but does not include solid or dissolved materials in domestic sewage, or solid or dissolved materials in irrigation return flows, or industrial discharges which are point sources subject to permits under section 402 of the Federal Water Pollution Control Act . . . or source, special nuclear, or byproduct material as defined by the Atomic Energy Act of 1954 . . . (Section 1004(27)).

In its proposed regulations, EPA adopted this definition, with its exclusions, in its entirety (§ 250.11(a)(7)). In addition, it proposed to construe the term "other discarded material" in Section 1004(27) to include:

(1) Any material which is not re-used—i.e., is abandoned or committed to final disposal;
(2) Any material which is re-used by being placed in or on the land or water so that the material or any constituent thereof is released into the environment; and
(3) Waste oil burned as fuel.

EPA noted that it would add other uses to the third category of discarded materials if it found that it was necessary to control such uses (43 FR 58954).

This definition of "other discarded material" was based on four major considerations. First, after reviewing both the language and framework of

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RCRA and its legislative history, EPA concluded that Subtitle C was intended to regulate hazardous wastes irrespective of their end use—*i.e.*, regardless of whether they are committed to final disposal or intended to be used, re-used, recycled or reclaimed.

Second, the Agency concluded that all hazardous wastes, regardless of their end use, may pose significant health and environmental hazards. Wastes that present a hazard in storage or transport arguably pose the same danger in storage or transport irrespective of whether they are destined for disposal or for use, re-use, recycle or reclamation. Wastes which are used or re-used by being placed on the land—*e.g.*, chemical-bearing sludges used as fertilizers, contaminated waste oil used as a dust suppressant on roads and radioactive mining wastes used as residential land fill—may pose almost the same hazards as if they were simply dumped there. Wastes which are used, re-used, recycled or reclaimed in some other fashion, and the facilities which recycle or reclaim them, may also create serious health or environmental problems. For example, waste drums containing hazardous residues which were used as municipal trash cans have injured children; waste solvent reclamation facilities have caused serious air pollution problems.

Third, EPA decided that excluding wastes that are used, re-used, recycled or reclaimed from the Subtitle C system would make the regulatory program largely unworkable and create a major regulatory loophole not intended by the Act. Without a manifest system (or its functional equivalent) there would be no way of assuring that wastes which were intended to be used, re-used, recycled or reclaimed were in fact delivered to their intended destination. Whether a waste was subject to Subtitle C requirements would be based primarily on the intent of the person handling it. This would make the requirements difficult to enforce and theoretically allow wastes to move in and out of the hazardous waste management system depending on what the person then handling the waste planned to do with it.

Finally, the Agency decided that, insofar as feasible, its regulations should try to achieve a workable balance between the requirement in Subtitle C that hazardous waste be properly managed and RCRA's overall objective of promoting the use, re-use, recycling and reclamation of wastes. The use, re-use, recycling and reclamation of wastes not only helps preserve valuable natural resources and reduces the environmental problems which stem from the exploitation of those resources, but, if properly conducted, may eliminate or reduce some of the hazards associated with other types of waste management and alleviate the strain on national disposal capacity. For this reason, EPA proposed to regulate only those uses and re-uses which could readily be expected to pose significant health and environmental hazards.

EPA received a substantial number of comments on its proposed construction of the statutory definition of "solid waste" and "other discarded materials." Virtually all commenters agreed that the terms encompassed materials which were destined for disposal. There was substantially less consensus on EPA's proposed regulation of used, re-used, recycled or reclaimed wastes. Some commenters argued that EPA had no authority under RCRA to regulate wastes which were used, re-used, recycled or reclaimed. Others contended that the Agency did have such authority and that comprehensive regulation of the use and recycling of hazardous waste was essential to protect public health and the environment and to make the hazardous waste management system workable. Still other commenters claimed that imposing stringent Subtitle C requirements on waste use, re-use, recycling and recovery would discourage such activities, thwarting one of the primary objectives of RCRA and further aggravating hazardous waste management problems.

1. *Legal Authority to Regulate Wastes That Are Used, Re-used, Recycled or Recovered.* Most commenters who challenged EPA's authority to regulate the use, re-use, recycling or reclamation of wastes based their contention on the term "other discarded material" in the statutory definition of "solid waste". The common meaning of this term, they argued, would preclude regulating as "solid waste" wastes which were not intended to be "thrown away" or "abandoned" or which were of "no further use".

The United States Court of Appeals for the D.C. Circuit has already rejected this argument in *United States Brewers' Association, Inc. v. EPA*, 600 F.2d 974 (D.C. Cir. 1979), a lawsuit challenging a beverage container recycling guideline issued by EPA under Section 1008(a)(1) of RCRA. The petitioners in that proceeding contended, *inter alia*, that beverage containers were not "solid waste" until "discarded" and therefore that EPA had no authority under Section 1008(a)(1) to issue solid waste management guidelines requiring that beverages be sold in returnable containers, or that a minimum deposit be charged on containers (to encourage their return). The Court of Appeals gave short shrift to this contention, noting that it:

> flies squarely in the face of the explicit definition in the statute. Section 1008(a) directs EPA to publish "suggested guidelines for solid waste management", which, as defined in section 1004(30) expressly includes "planning or management respecting resource recovery and resource conservation" . . . and "utilization of recovered resources" [600 F. 2d at 982-983].

We think the Court's conclusion is applicable to the rest of RCRA as well. It seems highly improbable that Congress would have intended the term "solid waste" to include recycled wastes under Section 1008(a)(1) but not under Subtitle C. Indeed, RCRA and its legislative history evidence a clear Congressional intent that the terms "solid waste" and "hazardous waste" encompass wastes that are used, re-used, recycled or recovered wherever such terms are used in the statute.

For example, Section 1004 of RCRA contains numerous definitions—including the definition of "Hazardous Waste Management", the title of Subtitle C—which would be self contradictory if the terms "solid waste" and "hazardous waste" did not include wastes which were used, re-used, recycled or recovered. *See, e.g.*, Sections 1004(7), (18)–(24), (29) and (34). The repeated references to resource recovery and conservation in the statute would be similarly meaningless if solid wastes were never recycled, recovered or reclaimed. *See, e.g.*, Sections 1002(c)(2) and (3), 1003(1) and (5)–(8), 2003, 4002(c)(10), 4003(5) and (6), 4008(a)(2)(A) and (d), 5001, 5002 and 6002(c)–(g).

The legislative history of RCRA further supports this construction of the terms "solid waste" and "discarded material". The report of the House Committee on Interstate and Foreign Commerce on RCRA, for example, makes it clear that the term "discarded material" is meant to *expand*, not limit, the common meaning of the term "solid waste" (H.R. Rep. at 2). Other references in the legislative history confirm that the term "discarded material" covers wastes which are being recycled [*see, e.g., H.R. Rep.* at 3, 10). Several of the damage incidents cited by Congress as justification for establishing a national hazardous waste management system resulted from recycling or re-use activities (H.R. Rep. at 17, 19 and 22). Discussions of resource conservation and recovery activities presume the existence of a solid waste from which valuable resources can be reclaimed.

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See, e.g., H.R. Rep. at 3, 4, 10, 11; S. Rep. at 2, 4, 6 (1976).

In short, under RCRA solid wastes do not cease to be solid wastes simply because they are being used, re-used, recycled or reclaimed. Rather, use, re-use, recycling, resource recovery and reclamation are ways of managing solid wastes which, if properly conducted, can avoid environmental hazards, protect scarce land supply, and reduce the nation's reliance on foreign energy and materials (H.R. Rep. at 4).

A number of commenters suggested that Congress could not have intended the term "solid waste" to include hazardous wastes which are used, re-used, recycled or reclaimed because the regulation of such wastes under Subtitle C would thwart RCRA's broad resource conservation and recovery objectives.

EPA does not agree. Although promoting waste re-use and recovery is certainly one of the goals of RCRA, Subtitle C does not require EPA to consider resource recovery implications in establishing hazardous waste management standards; nor does it suggest that promoting resource recovery should take precedence over assuring proper management of hazardous wastes. Furthermore, EPA does not agree that frustrating resource recovery is an inevitable result of requiring hazardous waste to be properly managed. As discussed below, EPA believes it may be possible to achieve a workable balance between Subtitle C's mandate that hazardous wastes be handled in an environmentally sound manner and RCRA's overall objective of encouraging th re-use and reclamation of wastes. However, in the event such a balance cannot be achieved, Congress' "overriding concern"—the safe handling of hazardous wastes (H.R. Rep. at 3) and the elimination of "the last remaining loophole" in environmental regulation (H.R. Rep. at 4)—must prevail.

2. *Assuring Proper Management of Hazardous Waste and Encouraging Resource Recovery.* The comments which EPA received on its proposal to regulate the use, re-use, recycling and recovery of hazardous waste in many ways mirrored the competing objectives which the Agency was trying to achieve in its proposal. Many commenters argued that EPA's approach would discourage the beneficial use and recycling of hazardous wastes by so escalating the cost of using or recycling wastes that they could no longer compete with virgin products, by increasing administrative burdens for the waste user or reclaimer, and by labeling recycling activities as another form of "hazardous waste" management. These commenters also suggested that the regulation of waste uses and reclamation would pose serious practical problems—*e.g.*, distinguishing between wastes and commercial by-products and intermediates, issuing permits for certain types of re-uses—and that EPA's proposed Section 3004 standards were not appropiate for many waste use and reclamation activities. Other commenters, citing the types of considerations outlined above, applauded EPA's regulation of the use and reclamation of hazardous wastes and urged that its proposed list of regulated waste re-uses and recycling operations be expanded to include the reclamation of waste solvents, the burning of spent catalysts and other organic wastes for energy, the use of metal-bearing sludges as fertilizers, the use of waste acids, and the re-use of contaminated drums. Still other commenters suggested that, at a minimum, wastes destined for re-use, or reclamation be properly stored and manifested.

EPA does not agree with the largely unsubstantiated claims of commenters that controlling the use and recycling of hazardous waste will necessarily discourage *bona fide*, environmentally sound re-use and reclamation activities. The impact of EPA's regulations on waste use and recovery will, in the Agency's opinion, hinge almost exclusively on the relative costs of re-use versus disposal. As disposal costs increase, it seems reasonable to expect that it will become profitable or more profitable to recycle or re-use wastes (even if regulated) than to dispose of them. EPA received no data during the comment period to suggest the contrary.

Commenters' claims about the chilling effect of regulating recycle and re-use activities also seem somewhat exaggerated. In many cases, Federal or State regulation of these activities should legitimatize, not stigmatize, them in the eyes of the public and increase the flow of wastes to well-operated facilities. Indeed, EPA received comments from several waste recyclers urging the Agency to extend Subtitle C control to their operations for these very reasons.

EPA does agree, however, that its proposed Section 3004 treatment and disposal standards (as well as the standards promulgated today) may not be well-suited for regulating all hazardous waste recovery and reclamation facilities or for regulating all uses and re-uses of hazardous waste. These standards are designed primarily to minimize the health and environmental hazards posed by traditional hazardous waste treatment and disposal facilities—such as incinerators and landfills. In many cases, the health and environmental dangers associated with the use or re-use of hazardous waste or with the recycle and reclamation operations are different in nature or degree, and therefore may justify the imposition of different management standards. For example, air emissions generated by the burning of waste oil for energy recovery can probably be effectively controlled without requiring boilers to meet hazardous waste incinerator requirements. Similarly, the leaching of metals from slag used in roadbeds can probably be successfully minimized without requiring compliance with Section 3004 landfill criteria.

At the same time, EPA also concedes that its proposed Section 3001 regulations probably did not go far enough in controlling the re-use and reclamation of hazardous waste. For example, there are a number of waste recycling operations which were not covered by EPA's proposed regulation—*e.g.*, solvent reclamation—which have been known to cause serious health and environmental hazards and should be subject to Subtitle C regulation. The long-term storage of hazardous wastes prior to recycling is another area where there have been damage incidents (*e.g.*, the incident at the Silresim Chemical Company) and where Subtitle C controls would appear to be essential for environmental protection.

In short, EPA acknowledges that it could have done a better job in its proposed regulations of attempting to balance Subtitle C's mandate that hazardous wastes be properly managed with RCRA's overall objective of promoting resource recovery. As we discovered during the comment period, however, this is not an easy task, and given other priorities in developing the regulations promulgated today, we have only been able to complete the first phase of it to date. That first phase, as well as EPA's long term plans for regulating the use, re-use, recycling and reclamation of hazardous wastes are discussed in sections IV.B.3. and IV.B.4., respectively, of this preamble. As indicated in those sections, we believe this program, when completed, will be responsive to the two major deficiencies in EPA's proposed regulation identified above.

3. *Regulating the Storage and Transportation of Hazardous Wastes Prior to Use, Re-use, Recycling or Reclamation; Defining "Waste".* As discussed above, EPA generally agrees

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that many of its proposed (and final) treatment and disposal standards were not particularly well-suited for hazardous waste recycling and reclamation operations or for uses and re-uses of hazardous wastes. Because of the need to resolve other, more pressing issues in the rule published today, we have not been able to formulate more appropriate standards to date. We are therefore deferring Subtitle C regulation of the actual use and re-use of hazardous wastes and hazardous waste recycling and reclamation activities until such standards can be developed (§ 261.6(a)). As noted in section IV.B.4., we hope to begin issuing those standards later this year.

This temporary deferral, it should be noted, is confined to *bona fide* "legitimate" and "beneficial" uses and recycling of hazardous wastes. Sham uses and recovery or reclamation activities—*e.g.*, "landfilling" or "land reclamation" which is actually disposal and burning organic wastes that have little or no heat value in industrial boilers under the guise of energy recovery—are not within its scope and, if conducted in violation of Subtitle C requirements, will be subject to enforcement under Section 3008 of RCRA. In enforcing this provision, EPA will be particularly suspicious of use, and reclamation operations which were not conducted prior to the publication of these regulations.

We do not think that the types of criticisms which have been made of EPA's proposal to apply its treatment and disposal standards to the use, re-use, recycling and reclamation of hazardous waste are applicable to those regulations which govern waste management prior to actual use, re-use, recycling or reclamation—*i.e.*, the standards for generators, transporters and owners and operators of storage facilities. During these stages of the waste handling process, wastes present essentially the same hazards, and should therefore require essentially the same management, irrespective of whether they are destined for disposal or for re-use and recycling.

EPA has concluded, therefore, that although we are not now prepared to issue standards regulating the actual use, re-use, recycling and reclamation of hazardous wastes, we can and should begin to control the transportation and storage of wastes prior to use, re-use, recycling and reclamation, and that the general management standards set forth in Parts 262, 263 and selected sections of Parts 264 and 265 are entirely appropriate for that purpose.

The decision to regulate hazardous waste use and recycling necessitates the development of a working definition of "waste" which can appropriately distinguish between "wastes" and other materials (such as products and chemical intermediates) for purposes of determining whether their use is subject to RCRA's jurisdiction. Indeed, many commenters criticized EPA for failing to clearly distinguish between wastes and other materials in its proposed regulations and suggested language or conceptual approaches which they contended would draw that distinction.

We have carefully reviewed these suggestions; most, however, were not very useful. For example, a number of commenters suggested that the line of demarcation between a "waste" and other materials was whether a substance had value. This definition makes no sense in the context of recycle and re-use activities, since a waste which is being re-used or recycled by definition "has value". *See* H.R. Rep. at 3. Definitions keyed to whether a waste has a commercial use raise similar problems.

Other commenters contended that the proper inquiry was whether a material was "historically reused" or was "sometimes discarded". We think this is a much more productive line of analysis and is more consistent with the language and legislative history of RCRA and the purposes of Subtitle C.

A review of both RCRA and its legislative history indicate that Congress intended to regulate four broad categories of materials as solid wastes under RCRA, and particularly Subtitle C, irrespective of their ultimate disposition. The common thread linking all these materials is that they are "sometimes discarded." Because they are "sometimes discarded," they not only fall within the general rubric "waste", but also may become part of the "discarded materials disposal problem" (H.R. Rep. at 2) which Congress sought to remedy under RCRA. Proper tracking and management of these materials under Subtitle C would assure that they did not become part of this problem because they would be either properly disposed of or properly used or reclaimed.

The first category of materials which are regulated as "wastes" under RCRA are "garbage, refuse (and) sludge" (Section 1004(27)). These materials are almost always thrown away, and it is clear from both Section 1004(27) of the statute and its legislative history (H.R. Rep. at 2–4; S. Rep. at 5) that Congress regarded them as "wastes" regardless of their intended end use.

Of those materials which are not garbage, refuse or sludge, it also seems clear that any material which is intended to be or is in fact thrown away, abandoned or destroyed is a "waste." As noted above, there appears to be no disagreement among commenters on this point and of course it is fully supported by the legislative history of RCRA.

Of those materials which do not fall into either of these two categories—*i.e.*, materials other than garbage, refuse or sludge which are (or are intended to be) used, re-used, recycled or reclaimed—it appears that there are two types of substances which Congress intended to be regulated as "wastes" under RCRA.

The first are materials like waste solvents, paint wastes, waste acids, used drums and waste oil. These are what Congress referred to in the legislative history as "post-consumer wastes" or wastes which have "served their intended purpose" (H.R. Rep. at 2 and 9). While acknowledging that some of these post-consumer wastes might be recycled (*see* H.R. Rep. at 3, 10), Congress also recognized that they were sometimes discarded, and therefore were "wastes" (*see* H.R. Rep. at 9–10).

The second are tars, residues, slags and other materials which are incidentally generated as part of a manufacturing or mining process. A major concern of Congress in enacting RCRA was to assure regulation of "the waste by-products of the nation's manufacturing processes" (H.R. Rep. at 2) and "the by-products of the productive process" (H.R. Rep. at 9). There is nothing in the legislative history which suggests that these terms refer only to the by-products of pollution control. Indeed, even the definition of sludge in Section 1004(26A) indicates Congress was not simply concerned about wastewater treatment slurries and sludges and emission control dusts, but also materials having "similar characteristics and effects". The term "similar characteristics" would suggest that such materials not only contain similar types of substances but, like pollution control sludges and dusts, are also incidentally produced as a result of industrial processes; the term "similar . . . effects" implies that such materials, like wastewater and emission control sludges, are also sometimes discarded in ways that pose environmental problems.

EPA has incorporated these concepts into a definition of "solid waste" in § 261.2. This term is defined to include "garbage", "refuse", "sludge" and "other waste material" (§ 261.2(a)). "Other waste material" is in turn defined as (i) materials which are discarded (or stored or accumulated for that purpose), (ii) materials which have served their original intended purpose and are sometimes discarded and (iii) materials which are incidentally generated during

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manufacturing or mining operations and are sometimes discarded (§ 261.2(b)). This latter category of materials expressly excludes primary products and product intermediates (§ 261.2(d)).

We are fairly confident that this definition will properly differentiate between "wastes" and other material with respect to those particular solid wastes that have been listed as hazardous wastes in Subpart D. In developing Subpart D, EPA has been careful to list only those materials that are either sludges, used materials which are typically discarded (*e.g.*, spent solvents) or manufacturing by-products which are typically discarded (*e.g.*, distillation residues). We have tried to avoid listing materials that are always used for manufacturing other products, because we believe that those are actually product intermediates, not wastes. Given the complexity of many manufacturing operations, however, it is possible that we might have erred in a few cases and we urge the public to bring these to our attention.

We are somewhat less confident that our definition of solid waste, particularly its inclusion of used materials and by-products, will work for all the materials which might exhibit the Subtitle C characteristics. For this reason, we are at the present time confining our regulation of the storage and transportation of wastes prior to use, re-use, recycling and reclamation to sludges, wastes listed in Subpart D and waste mixtures containing wastes listed in Subpart D (§ 261.6(b)). As discussed above, we are fairly sure that all these materials are "wastes" whose use, re-use, recycling and reclamation is subject to jurisdiction under RCRA.

As noted in Section III.B., the definition of "solid waste" is being issued as an interim final regulation. We are expressly soliciting comment on whether its application to unlisted materials (as well as listed wastes) leads to absurd results, and, if so, what these situations are and how they might be remedied by specific revisions to § 261.2.

4. *Regulating the Actual Use, Re-Use, Recycling and Reclamation of Hazardous Wastes.* One approach to regulating the use, re-use, recycling and reclamation of hazardous wastes which a number of commenters suggested and which EPA is considering very seriously is waste-specific, use-specific management standards. This approach would help avoid the problems, discussed above, of attempting to apply standards which are designed to deal with traditional waste disposal and treatment operations, such as landfills, to re-use and recycle activities.

EPA intends to begin issuing such standards in the fall of 1980. In some cases, these standards may require full or partial compliance with existing Subtitle C requirements; in others, they may include a special set of requirements (to be established in Part 266) which have been developed for a particular hazardous waste use or recovery operation. Using this regulatory approach, we believe we can not only better tailor Subtitle C management standards to the health and environmental hazards posed by use and recycling activities but also achieve a better balance between RCRA's dual goals of protecting human health and the environment and promoting resource conservation and recovery.

In the fall of 1980, we expect to start dealing with the following hazardous waste use and recovery operations:

Waste	Use or Recovery
Spent solvents listed in Subpart D.	Reclamation Burning as a fuel
Radioactive uranium mining and phosphate mining and processing wastes.	Land reclamation Use in building products
Waste oil	Road oiling and use in other land applications Burning as a fuel Reclaiming and re-refining
Residues from the production of chlorinated hydrocarbons.	Burning as a fuel

These operations were identified by commenters as being among those which posed the most serious potential health or environmental hazards and/or were the most ubiquitous. EPA agrees, and therefore will begin establishing standards for these activities first.

At a later date, possibly by the fall of 1981, we intend to address the re-use and recycling of other hazardous wastes, including but not limited to the following:

Waste	Use or Recovery
Residues from the production of organic chemicals listed in Subpart D (other than chlorinated hydrocarbons).	Burning as a fuel
Activated carbon used to treat hazardous wastes.	Regeneration
Wastewater and air emission treatment sludges listed in Subpart D.	Fertilizers and soil conditioners Other uses on the land

Eventually, EPA hopes to regulate the use, re-use, recycling and reclamation of all hazardous wastes listed in Subpart D which are known to be used, re-used or recycled. Our plans for extending regulatory coverage to unlisted hazardous wastes are less certain at this time because we do not have a good inventory of these wastes. As data are collected through the Section 3010 notification and annual reporting under Parts 262, 264 and 265, we hope to develop a more specific plan for regulating the use and recycling of these wastes.

EPA is anxious to obtain public comment on this approach. We specifically invite comments on the following questions:

1. Are there other hazardous wastes, particularly wastes listed in Subpart D, that should be placed on the above lists and given priority?

2. Are the above-listed wastes used or recycled in other ways that require regulation? If so, what types of regulatory controls would be appropriate?

3. Is there any reason not to prohibit the land disposal of spent solvents listed in Subpart D and require that they be reclaimed or destroyed? Is it necessary to manifest these wastes to assure that they are delivered to reclamation or treatment facilities? Can such facilities be effectively regulated by rule—*i.e.*, without individual permits?

4. Can the radiation hazards posed by radioactive mining wastes and phosphate mining and processing wastes be adequately controlled by (a) prohibiting the use of these wastes in residential construction and (b) imposing a few simple requirements on the use of these wastes as fill for land where habitable structures might be built?

5. Can facilities which burn waste oil as a fuel or reclaim or refine waste oil be adequately regulated by rule—*i.e.*, without individual permits? Is there any reason not to prohibit the use of waste oil for road oiling, dust suppression and other land (and water) applications?

6. Should full Subtitle C standards be applied to the use, re-use, recycling and reclamation of residues from the production of chlorinated hydrocarbons? From the production of other organic chemicals? If not, for what residues and uses should special standards be applied and what should those standards be?

7. Should full Subtitle C standards be applied to the regeneration of activated carbon? If not, what standards should be applied?

8. Can sites where waste treatment sludges are used as fertilizers, as soil conditioners or in other land applications be effectively regulated by rule—*i.e.*, without individual permits?

In each of the foregoing areas of inquiry, EPA would appreciate the submission of any relevant facts and data. Unsubstantiated opinions are generally not very helpful to us in coming to grips with these types of issues. On the other hand, information on the quantity of waste which is used

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or recycled, management practices, environmental emissions that attend use or recycling, health and environmental effects resulting from use and recycling and other specific data are very useful.

We also invite commenters to submit specific proposed standards or suggestions for how standards might be developed. For example, where wastes might be burned as a supplemental fuel in industrial boilers, proposals on fuel ratios, burning temperatures, emission control requirements and residue disposal requirements would be useful. Obviously, the more specific and constructive the suggestions, the more helpful they will be in our rulemaking.

C. Section 261.3 (Definition of Hazardous Waste)

This section is a new provision which does not have a direct counterpart in the proposed regulations. It has been added for purposes of clarification and in response to questions raised during the comment period concerning waste mixtures and when hazardous wastes become subject to and cease to be subject to the Subtitle C hazardous waste management system.

If a material is a hazardous waste within the meaning of this section it must be managed in accordance with EPA's Part 262 through 265 standards and its Part 122 through 124 permitting requirements unless covered by one of the exclusions in those regulations or one of the Part 261 special management provisions (§§ 261.5 and 261.6).

1. *What is a Hazardous Waste?* Paragraph (a) of this section defines what a hazardous waste is. It provides that a solid waste is a hazardous waste if it is not excluded under § 261.4(b) and it either (1) is listed as a hazardous waste in Subpart D, (2) is a waste mixture containing one or more hazardous wastes listed in Subpart D or (3) exhibits one or more characteristics of hazardous waste identified in Subpart C. A listed waste or a solid waste mixture containing a listed waste which is generated by a particular facility may be excluded under the rulemaking procedures prescribed in §§ 260.20 and 260.22 (see section VIII.C., below). In that event, it will be considered a hazardous waste only if it exhibits one or more of the characteristics.

Except for waste mixtures, all these provisions were contained in EPA's December 18, 1978 proposal (*see* §§ 250.10 (b) and (d)(2), 250.13 and 250.14). The waste mixtures provision is a clarification which has been added in response to inquiries about whether mixtures of hazardous and nonhazardous wastes would be subject to Subtitle C requirements. This is a very real issue in real-world waste management, since many hazardous wastes are mixed with non-hazardous wastes or other hazardous wastes during storage, treatment, or disposal.

Although it was not expressly stated in the proposed regulation, EPA intended waste mixtures containing listed hazardous wastes to be considered a hazardous waste and managed accordingly. Without such a rule, generators could evade Subtitle C requirements simply by commingling listed wastes with nonhazardous solid waste. Most of these waste mixtures would not be caught by the Subpart C characteristics because they would contain wastes which were listed for reasons other than that they exhibit the characteristics (*e.g.*, they contain carcinogens, mutagens or toxic organic materials). Obviously, this would leave a major loophole in the Subtitle C management system and create inconsistencies in how wastes must be managed under that system.

EPA recognizes that designating all waste mixtures containing listed wastes as hazardous wastes under Subtitle C may create some inequities. For example, this approach may result in some waste mixtures which contain only very small amounts of listed hazardous wastes or which commingle waste in a way which renders them nonhazardous (*e.g.*, neutralization) having to be managed under Subtitle C. We have tried to address this problem by establishing provisions for amending this paragraph to exclude waste mixtures produced by individual facilities, if they can show that the mixture (or each constituent listed hazardous waste) is not hazardous, based on the criteria for which the consistuent hazardous wastes were listed. Because this is a rulemaking procedure, it will, as a practical matter, only be useful for facilities which routinely mix wastes in relatively constant proportions. With a regulated community potentially numbering in the hundreds of thousands, we simply do not have the resources to process petitions for exempting "one-shot" waste mixtures. Moreover, in most of these one-time cases, it seems likely that the burden of having to manage a waste mixture as a hazardous waste could be easily avoided by carefully segregating hazardous and non-hazardous waste.

We know of no other effective regulatory mechanism for dealing with waste mixtures containing listed hazardous wastes. Because the potential combinations of listed wastes and other wastes are infinite, we have been unable to devise any workable, broadly applicable formula which would distinguish between those waste mixtures which are and are not hazardous. If any members of the public have suggestions for other approaches, we would appreciate having them brought to our attention for future rulemaking.

Waste mixtures containing only wastes which meet the characteristics are treated just like any other solid waste *i.e.*, they will be considered hazardous only if they exhibit the characteristics. EPA recognizes that this may not be an altogether satisfactory regulatory approach. While it would no doubt encourage some desirable mixing of wastes, it would also allow some wastes (principally wastes caught by EPA's extraction procedure) to escape regulation merely by being mixed with other wastes or other materials. We know of no solution to this problem which does not create major inconsistencies in the way wastes are determined to be hazardous under Subpart C of this regulation. Again, if the public has suggestions for other ways of dealing with this issue, we would like to receive them.

2. *When Does a Waste Become a Hazardous Waste?* Paragraph (b) provides three simple rules for determining when a solid waste becomes a hazardous waste and therefore must be managed under Subtitle C. It has been provided in response to comment requesting clarification on this issue.

Paragraph (b) states that a solid waste which is a hazardous waste because it is listed in Subpart D must begin to be managed as a hazardous waste when it first meets the Subpart D listing description. Most of the hazardous wastes listed in §§ 261.31 and 261.32 of Subpart D are process residues, emission control dusts, or wastewater treatment sludges, and the point in time when they are created is generally well-defined. For those used materials which are listed as hazardous wastes in those sections or § 261.33 (*e.g.*, spent solvents), the point at which they meet the listing description is somewhat less well-defined, but generally occurs when their intended use has ceased, and they begin to be accumulated or stored for disposal, re-use or reclamation.

In the case of a waste mixture containing a listed hazardous waste, paragraph (b) requires that the waste mixture be managed as a hazardous waste as soon as the listed waste is added to it. The listed waste, of course, must be handled as a hazardous waste prior to that time.

Finally, paragraph (b) provides that a solid waste is a hazardous waste

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whenever it exhibits one or more of the characteristics. As a practical matter, this means that persons handling solid wastes must determine whether they meet the characteristics whenever the management of the solid wastes would potentially be subject to EPA's Part 262 through 265 regulations.

The following examples illustrate how this provision would operate in practice:

- The ABC Company stores waste acid on-site in containers prior to transport off-site for disposal. The company must determine whether the acid meets Subpart C characteristics when it is poured into the containers.
- The DEF Company pipes waste acid into a tank, where it is neutralized by adding lime. The company must determine whether the acid meets Subpart C characteristics when it enters the neutralization tank. The neutralization operation is a treatment process.
- The GHI Company pipes waste acid into a tank truck for transport to an off-site treatment facility. The company must determine whether the acid meets Subpart C characteristics when it enters the tank truck.
- The JKL Company produces a wastewater which is piped into a surface impoundment, for the purposes of treatment prior to point-source discharge into surface waters. During treatment a sludge forms. This sludge is periodically dredged from the impoundment and disposed of. The company must determine (1) whether the wastewater meets Subpart C characteristics when it enters the impoundment and (2) whether the sludge meets Subpart C characteristics when it begins to accumulate on the bottom of the impoundment.

In drafting paragraph (b), EPA has attempted to cover the most common types of waste generation and management scenarios. The Agency recognizes, however, that some companies may generate and handle wastes in ways not contemplated by EPA and for which a strict application of paragraph (b) would make no sense. We would appreciate having those instances brought to our attention so that we can decide whether additional rulemaking or issuing guidance is appropriate for dealing with these situations.

3. When Does a Hazardous Waste Cease to be a Hazardous Waste?

Paragraphs (c) and (d) of this section explain when a hazardous waste ceases to be a hazardous waste and therefore is no longer subject to Subtitle C requirements. These are new provisions which have been added both in response to comment and as a logical outgrowth of paragraph (b).

Paragraph (c) provides that a hazardous waste remains a hazardous waste unless and until (1) it does not exhibit any of the characteristics identified in Subpart C and (2) where the waste is listed in Subpart D (or is a mixture containing a waste listed in Subpart D), the waste (or each of its constitutent listed wastes) is also excluded from paragraph (c) under the rulemaking procedures outlined in §§ 260.20 and 260.22. As a practical matter, this means that facilities which store, dispose of or treat hazardous waste must be considered hazardous waste management facilities for as long as they continue to contain hazardous waste and that any wastes removed from such facilities—including spills, discharges or leaks—must be managed as hazardous wastes.

EPA believes this is a very reasonable and rational rule. Wastes are typically stored for relatively short periods of time. Although solids in the waste may settle and the volume of the waste may be reduced by evaporation during this period, major chemical or biological changes affecting the hazardous character of the waste are unlikely to occur. Hazardous wastes which are disposed of in a landfill are more likely to undergo change (principally through leaching and anaerobic degradation), but only very slowly and over a long period of time.

Hazardous wastes placed in treatment facilities (including incinerators, surface impoundments and land treatment facilities) will, by definition, change character. However, treatment does not necessarily "render [a] waste nonhazardous" (Section 1004(34)). It may only make it "amenable for recovery, amenable for storage or reduced in volume"; or it may only eliminate one of several hazardous properties. Moreover, even in those cases where treatment does ultimately render a waste "nonhazardous", the waste will generally have been hazardous during part or all of the treatment process.

Paragraph (c) establishes a similar rule with respect to solid wastes generated by storage, disposal and treatment—including leachate and treatment residues such as sludges and incinerator ash. Here, too, it is reasonable to assume that these wastes, which are derived from hazardous wastes, are themselves hazardous.

Leachate is produced by the percolation of liquid through wastes; it typically contains solubilized heavy metals and organic materials and is virtually always highly toxic. Treatment residues, by definition, contain waste constituents which were removed during treatment or which were not completely destroyed by treatment. Sludges from wastewater treatment typically contain concentrated amounts of the toxic substances which were in the wastewater. Ash from the incineration of hazardous wastes often contains heavy metals and, if combustion is not complete, undestroyed toxic organic materials.

This is the best regulatory approach we can devise at this time for dealing with solid wastes generated by hazardous waste management facilities. We are not now in a position to prescribe waste-specific treatment standards which would identify those processes which do and do not render wastes or treatment residues nonhazardous. To list treatment residues on case-by-case basis would be an enormous job, and one which we think, given the reasons outlined above, is unnecessary.

This approach obviously is not without deficiencies. For example, one effect of treating wastes containing synthetic organic materials may be to create new hazardous constituents in the waste or treatment residue. This regulation obviously does not deal with those new constituents. It also does not cover run-off from hazardous waste facilities on the theory that the water in precipitation run-off in many cases may not have had sufficient contact with the waste to solubilize waste constituents. (Of course if collected, run-off would be a solid waste and, if it exhibited any of the characteristics, would have to be managed as a hazardous waste). For purposes of future rulemaking, we would be interested in any suggestions the public has for dealing with these issues.

D. Section 261.4 (Exclusians)

EPA's proposed Section 3001 regulations identified a number of wastes which would not be subject to Subtitle C requirements because they were either excluded from the statutory definition of solid waste (§ 250.11(a)(7)), not intended by Congress to be regulated under Subtitle C (§ 250.10(d)(2)(i) and (ii)), or subject to regulation under other EPA statutes (§ 250.10(d)(2)(iii)).

EPA received a number of comments on these proposed exclusions. Some commenters simply urged EPA to clarify which wastes were covered by each of the exclusions. Others challenged EPA's justification for some of its proposed exclusions. Still others contended that additional wastes should be exempted from regulation based on legislative history or an alleged lack of demonstrated harm to human health or the environment.

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The exclusions contained in § 261.4 are based on interpretations of the statutory definition of "solid waste" and on those parts of RCRA's legislative history which indicate a Congressional intent that certain waste streams should not be regulated. Some commenters suggested that certain waste streams would never be hazardous and therefore should be excluded from these regulations. Those commenters did not, however, provide sufficient information on which EPA could base such sweeping determinations. Generators of solid wastes that are not hazardous may determine that their wastes are non-hazardous under these regulations. As these regulations are implemented more information will be developed about specific waste streams. EPA will then be in a better position to make categorical judgments about the lack of risk presented by certain wastes. At this time, however, EPA has limited the exclusions in § 261.4 to those which are based on expressed Congressional intent.

The following is a discussion of the specific exclusions contained in § 261.4:

1. *Domestic Sewage.* In defining "solid waste" Section 1004[27] specifically excludes "solid or dissolved material in domestic sewage." The proposed regulation did not specifically define "domestic sewage", but did contain provisions that were based on an interpretation of that term. Section 250.40(c)(3) of the proposed regulation exempted owners and operators of POTW's from all portions of the Section 3004 standards except those involving the manifest system, recordkeeping and reporting with respect to hazardous wastes received by truck or rail. As described in the preamble to the proposed regulation, that decision was based on the idea that the mixing of a hazardous waste with domestic sewage made the entire mixture a domestic sewage excluded under Section 1004(27).

Commenters raised several objections to this approach. First, commenters argued that the only basis for an exclusion under Section 3004 is one based on health or environmental risk rather than public ownership. Second, commenters argued that some POTW's will handle significant quantities of hazardous waste and that such facilities present the same environmental risks as private facilities that treat, store or dispose of hazardous waste. Third, some commenters merely argued that if POTW's are excluded because they handle a significant portion of domestic sewage, other private parties that handle wastes of a similar mix should be excluded also. Fourth, a commenter said that the proposed regulation did not clearly indicate whether a POTW could ever be subject to Subtitle C jurisdiction if it only treated industrial waste.

The term "domestic sewage" generally denotes sanitary wastes that pass through a sewer system. A waste stream comprised entirely of sanitary waste, that passes through a sewer system is "domestic sewage" under any reasonable interpretation of the statutory exemption. This exemption applies regardless of whether the sewer system or the treatment works to which it connects is publicly or privately owned.

A more difficult question is presented when pure sanitary wastes are mixed with other types of wastes in a sewer system. The issue of whether such mixed waste streams are within RCRA's jurisdiction has broad implications and thus it is necessary to carefully consider the Congressional purpose behind the exemption.

The legislative history of RCRA does not specifically address the exemption because it was a carry-over from the Solid Waste Disposal Act, which RCRA amended. The "domestic sewage" exemption first appeared in the definition of "solid waste" found in the Solid Waste Disposal Act of 1965. The legislative history of that act indicates that the exemption was based on a recommendation, made to the Congress by the Administration, that "organic solids in untreated domestic sewage" be excluded from coverage because such wastes were already subject to controls under the Federal Water Pollution Control Act (FWPCA). At that time, the portion of the FWPCA that addressed "untreated sewage" was the Federal construction grant program, which gave money to States and municipalities to construct treatment works and to study combined sewer systems.

This legislative history suggests a Congressional intent that the scope of the "domestic sewage" exemption must depend, in part, on the capacity of the Agency's construction grants program to address the environmental problems arising from any exempted waste streams. At the time the exemption was enacted, and under the present Clean Water Act, the Agency has grant programs that assist states and localities in the treatment of sanitary sewage by POTW's.

EPA believes that the Congressional policy reflected in the legislative history of the "domestic sewage" exemption should guide the Agency in its regulation of mixtures of sanitary waste with other waste streams. Mixed waste streams that pass through sewer systems to publicly-owned treatment works (POTW's) will be subject to controls under the Clean Water Act. The Agency's construction grants program provides financial assistance for the proper treatment of these wastes. In addition the Agency's pretreatment program provides a basis for EPA and the local communities to insure that users of sewer and treatment systems do not dump wastes into the system that will present environmental problems. Under these circumstances EPA believes that it is appropriate to include within the "domestic sewage" exemption mixtures of sanitary wastes and other wastes that pass to POTW's. Since the treatment of sewage by privately-owned treatment works is not similarly controlled through the Agency's construction grant and pretreatment program, the exemption would not be available for mixed waste streams going to such treatment works.

The "domestic sewage" exemption is only applicable to non-domestic wastes that *mix* with sanitary wastes in a sewer system leading to a POTW. An industrial waste stream that never mixes with sanitary wastes in the sewer prior to treatment or storage does not fall within the exemption, regardless of the public or private ownership of the treatment works. Defining the point at which "mixture" occurs may seem to be a relatively straightforward task. Practical problems arise, however, in defining the point at which mixture of sanitary and other wastes occurs in a complex sewer system. Moreover it is particularly difficult to define this point for regulatory purposes in such a way that all parties understand when RCRA obligations begin and end.

EPA has, therefore, decided that a waste falls within the domestic sewage exemption when it first enters a sewer system that will mix it with sanitary wastes prior to storage or treatment by a POTW. EPA recognizes that this interpretation brings various wastes within the exemption before they are actually mixed with sanitary wastes. In light of the fact that the wastes will be mixed prior to treatment and that the mixture will be properly treated by the POTW, EPA believes that the need for administrative clarity in this otherwise complicated regulatory program warrants such an approach.

In response to the comments on the exclusion of POTW's from Section 3004 standards, EPA has changed these regulations to make clear that the statutory exemption is one for "domestic sewage" rather than POTW's. Facilities receiving waste streams that are exclusively made up of sanitary wastes will not be subject to these regulations

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regardless of the public or private ownership of the facility. Likewise a POTW receiving industrial wastes that do not mix with sanitary wastes prior to treatment would be handling a solid waste subject to these regulations.

The exclusion of domestic sewage and mixtures that pass through sewer systems to POTW's is based on Congressional intent, not an Agency determination about the relative health and environmental risks presented by such waste streams. The Agency acknowledges that some mixtures of domestic sewage with other wastes may present environmental risks and that some non-domestic wastes may have properties similar to these of exempted domestic wastes. In response EPA can only assume that such factors were not determinative in the Congress' creation of the exclusion.

The proposed regulation did not contain a specific definition of domestic sewage. EPA believes that the definition of domestic sewage, and the provision relating to mixtures of wastes with domestic sewage, contained in these regulations is a reasonable interpretation of RCRA's statutory language and legislative history. The Agency has decided, however, to promulgate this part of the regulation as interim final in order to gain the benefit of public comment on the concepts involved. The Agency considered several options for defining domestic sewage and classifying mixtures of such sewage with other wastes. Those options included:

(1) Defining "domestic sewage" to include all wastes mixed with sanitary wastes;

(2) Limiting the exemption to only sanitary wastes, treating any mixture of sanitary wastes and other wastes as solid wastes;

(3) Defining "domestic sewage" as any waste made up primarily (i.e. more than 50% by volume) of sanitary waste streams; and

(4) Linking the exemption for mixtures to those that flowed into a "publicly-serving" or "constructed-to-serve-the-public" treatment works, rather than POTW's.

The Agency is interested in comments on these options and the selected approach, as well as any other suggested interpretations of the provision. Commenters should recognize that the Agency's selected approach is based on an interpretation of Congressional intent. The Agency is interested generally in comments about the impact of this approach on regulated parties, but it particularly seeks comment on how such effects relate to the Congressional purpose of the exemption expressed in RCRA's legislative history.

These regulations, then, define domestic sewage as untreated sanitary wastes that pass through a sewer system. Such wastes are excluded from regulation as solid wastes under these regulations. In addition mixtures of wastes with domestic sewage that pass through a sewer system to a publicly-owned treatment works for treatment are also excluded from regulation as solid wastes.

2. *Industrial Point Source Discharges.* The statutory definition of "solid waste" in Section 1004(27) of RCRA excludes "solid or dissolved materials in . . . industrial discharges which are point sources subject to permits under Section 402 of the Federal Water Pollution Control Act". In its proposed regulations, EPA construed this phrase to include only actual discharges into navigable waters, not industrial wastewaters upstream from the point of discharge. The effect of this interpretation was to require surface impoundments, tanks, lagoons, holding ponds and other facilities used to treat or store hazardous industrial wastewater to meet Section 3004 standards and to obtain a Section 3005 permit. *See* 43 FR 58993 and proposed §§ 250.45-3 and 250.45-4.

The application of Subtitle C requirements to wastewater treatment impoundments was one of the most controversial aspects of EPA's proposed hazardous waste regulations. Most of commenters' objections to EPA's proposal as they pertain to Section 3004 interim status requirements are discussed in the preamble to the Section 3004 regulations published elsewhere in today's Federal Register. The only one addressed here is commenters' argument that the "industrial discharge" exclusion in Section 1004(27) refers to the entire wastewater stream, not simply the point source discharge, and that EPA therefore has no authority under RCRA to regulate industrial wastewater holding or treatment facilities.

This contention is not supported by either the plain language of the statute or its legislative history. The obvious purpose of the industrial point source discharge exclusion in Section 1004(27) was to avoid duplicative regulation of point source discharges under RCRA and the Clean Water Act. Without such a provision, the discharge of wastewater into navigable waters would be "disposal" of solid waste, and potentially subject to regulation under both the Clean Water Act and Subtitle C. These considerations do not apply to industrial wastewaters prior to discharge since most of the environmental hazards posed by wastewaters in treatment and holding facilities—primarily groundwater contamination—cannot be controlled under the Clean Water Act or other EPA statutes.

Had Congress intended to exempt industrial wastewaters in storage and treatment facilities from all RCRA requirements, it seems unlikely that the House Report on RCRA would have cited, as justification for the development of a national hazardous waste management program, numerous damage incidents which appear to have involved leakage or overflow from industrial wastewater impoundments. *See, e.g.,* H.R. Rep. at 21. Nor would Congress have used the term "discharge" in Section 1004(27). This is a term of art under the Clean Water Act (Section 504(12)) and refers only to the "addition of any pollutant to navigable waters", not to industrial wastewaters prior to and during treatment.

Since the comment period closed on EPA's regulations, both Houses of Congress have passed amendments to RCRA which are designed to provide EPA with more flexibility under Subtitle C in setting standards for and issuing permits to existing facilities which treat or store hazardous wastewater. *See* Section 3(a)(2) of H.R. 3994 and Section 7 of S. 1156. *See also* S. Rep. No. 96-172, 96th Cong., 1st Sess. 3 (1979); Cong. Rec. S6819, June 4, 1979 (daily ed.); Cong. Rec. H1094-1096, February 20, 1980 (daily ed.). These proposed amendments and the accompanying legislative history should lay to rest any question of whether Congress intended industrial wastewaters in holding or treatment facilities to be regulated as "solid waste" under RCRA.

3. *Other Statutory Exclusions.* The definition of "solid waste" in Section 1004(27) excludes two other classes of wastes. "Solid or dissolved materials in irrigation return flows" and "source, special nuclear, or byproduct material as defined by the Atomic Energy Act of 1954" are not "solid waste" under RCRA.

In § 250.40(e) of the proposed regulation these two categories of wastes were excluded from regulation under Section 3004. No substantial comment was received on these exclusions. In these final regulations under Section 3001, the Agency has specifically excluded these materials from regulation as solid waste in accord with the statutory definition of "solid waste."

4. *Household Wastes.* Under § 250.20(c)(4) of the proposed regulation, a person or Federal agency who

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generated only household refuse or household septic tank pumpings was excluded from regulation as a generator of hazardous waste. "Household refuse" was defined as trash or rubbish ordinarily produced by a family at their home. This exclusion, which also was available to apartment houses, condominiums and hotels, was based on the legislative history of RCRA.

The few commenters that addressed this provision made two general points. First they said that the "ordinarily produced" portion of the proposed "household refuse" definition might not include certain materials such as medicinal drugs and ointments, household cleaning agents and solvents, waste oils, paints and pesticides that might be purchased at a grocery, drug or hardware store. Second, a commenter pointed out that a Federal agency could not, by definition, produce household wastes.

The Agency has retained the general concept contained in proposed § 250.20(c)(4) in these regulations. The provision is stated, however, as an exclusion of a waste stream—namely "household wastes"—rather than as an exclusion of a class of generators. This change is more in accord with legislative intent. The exclusion is based on language in the Senate Report which states:

> [The hazardous waste program] is not to be used to control the disposal of substances used in households or to extend control over general municipal wastes based on the presence of such substances.
>
> [S. Rep. No. 94-988, 94th Cong., 2nd Sess., at 16.]

This indicates Congressional intent to exclude *waste streams* generated by consumers at the household level. Since the wastes generated at hotels and motels are essentially the same as those generated by consumers in their households, EPA believes that such wastes should be within the exclusion.

The Senate language makes it clear that household waste does not lose the exclusion simply because it has been collected. Since household waste is excluded in all phases of its management, residues remaining after treatment (e.g. incineration, thermal treatment) are not subject to regulation as hazardous waste. Such wastes, however, must be transported, stored, treated and disposed in accord with applicable State and federal requirements concerning management of solid waste (including any requirements specified in regulations under Subtitle D of RCRA.)

When household waste is mixed with other hazardous wastes, however, the mixture will be deemed hazardous in accord with § 261.3(a)(2)(ii) of these regulations except when they are mixed with hazardous wastes produced by small quantity generators (see § 261.5). While household waste may not be hazardous per se, it is like any other solid waste. Thus a mixture of household and hazardous (except those just noted) wastes is also regulated as a hazardous waste under these regulations.

Because of comments on this matter, the relationship of this exclusion to refuse-derived fuel (RDF) should also be explained. RDF is a processed material (usually shredded) that is produced from solid waste and used as a fuel. RDF production usually involves the extraction of inorganic components from the waste leaving the combustible organic component for its fuel value. In the same sense that residue from the treatment of household wastes is not subject to regulation as a hazardous waste, as discussed above, neither is RDF subject to such regulation. Moreover, RDF is not a "solid waste" under § 261.2 because it is not an "other discarded material;" it is or is not intended to be discarded (§ 261.2(b)(1)), it is not a material that has served its original intended purpose (§ 261.2(b)(2)) and it is not a manufacturing or mining by-product (§ 261.2(b)(3)).

EPA agrees with those commenters who suggested that Federal agencies cannot qualify as households. Therefore wastes generated by such agencies are not within the household waste exclusion. In addition EPA believes that medicinal drugs and ointments, household cleaning agents and solvents, waste oils, paints and pesticides purchased at grocery, drug or hardware stores may be disposed of as part of a consumer's household wastes. If a household disposes of such wastes, the wastes may be subject to the household waste exclusion.

Septic tank pumpings were included in the exclusion contained in § 250.20(c)(4) of the proposed regulation. After further examination of this provision, EPA has concluded that such pumpings should be excluded from regulation as hazardous wastes to the extent that they constitute household waste. Households often use septic tanks to dispose of a portion of their wastes. As with all household wastes, these sanitary wastes in household septic tanks are excluded from regulation as a hazardous waste in all phases of their management. Thus septic tank pumpings drawn from household septic tanks are not regulated as hazardous wastes under these regulations. Any wastes drawn from non-household septic tanks are regulated like any other solid waste under these regulations.

5. *Agricultural Wastes.* Under § 250.10(d)(2)(i) of the proposed regulation, agricultural wastes (including manures and crop residues) which are returned to the soil as fertilizers or soil conditioners were excluded from regulation as hazardous waste. The exclusion was based on the legislative history of RCRA which specifically calls for such an exclusion. See H. Rep. No. 94-1491, 94th Cong. 2nd Sess. 2 (1976). Commenters generally accepted this exclusion, and EPA has decided to retain it because the need for such an exclusion is so clearly identified in RCRA's legislative history.

Some commenters asked the Agency, however, to go beyond the specific language of the legislative history and expand the exclusion to include silvicultural wastes. They argued that the foliage and branches left in the forest after trees have been cut are not hazardous and that such wastes help to enrich the soil and control erosion. EPA has decided not to provide a specific exclusion for such wastes because there is no indication in the legislative history of RCRA that the Congress meant to include silvicultural wastes in the exclusion otherwise applicable to agricultural wastes. Moreover EPA has no basis to make a general determination that all silvicultural wastes will not pose environmental problems if mismanaged.

In response to the specific comment about tree branches, it must be recognized that the obligation placed on generators of solid waste is to determine whether their waste is hazardous. Tree branches are not listed as hazardous wastes. Therefore, the only obligation placed on a timber operation is to determine whether its wastes exhibit hazardous characteristics. EPA expects that, in the case of tree branches that are not hazardous, it will be a relatively easy task for the generator to determine that his waste is not hazardous.

6. *Mining Waste.* Section 250.10(d)(2)(ii) of the proposed regulation excluded overburden intended for return to the mine site from regulation under Subtitle C unless such overburden had been specifically listed as a hazardous waste. This exemption was based on the legislative history of RCRA.

Generally commenters accepted this exemption but sought a clearer specification of what wastes fall within the exclusion. Thus commenters sought a definition of both "overburden" and "mine site." Commenters also sought a

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clearer interpretation of the time within which the "*return* to the mine site" would have to occur. Finally, several commenters objected to that portion of the proposed regulation which allowed EPA to list and regulate specific overburden materials otherwise covered by the exclusion. EPA had invoked this provision when listing uranium mining overburden and waste rock and phosphate mining overburden in the proposed regulation. These same commenters had also objected to the proposed listing of such wastes.

After review of the comments and further analysis, EPA has decided to retain an exemption for "mining overburden returned to the mine site", defining it as "any material overlying an economic mineral deposit which is removed to gain access to that deposit and is then used for reclamation of a surface mine."

In enacting RCRA, the Congress specifically included mining wastes within the Section 1004(27) definition of "solid waste." Therefore unless the statute or legislative history clearly indicate that mining wastes are to be exempt the presumption is that they are to be regulated like any other solid or hazardous waste. Portions of RCRA's legislative history in both the Senate and House of Representatives suggest, however, that certain kinds of mining overburden are not within the Act's jurisdiction. In discussing RCRA's scope the House Report states:

> [O]verburden resulting from mining operations and intended for return to the mine site is not considered to be discarded material within the meaning of this legislation. This however does not preclude any finding by the Administrator that specific mine wastes are hazardous within the scope of this legislation.

In the Senate this issue was discussed during the floor debate when Senator Domenici asked about the effect of RCRA on mining operations, particularly strip mining. As part of his response Senator Randolph stated:

> The measure would not affect surface mining activities. Reclamation is not solid waste disposal.

Reclamation of surface mines will commonly involve the return to the mine site of waste overburden that has been removed to gain access to the ore deposit. Since it is assumed that both the Senate and House had similar objectives in passing RCRA, the "returned to the mine site" language in the House Report must be read in light of the Senate's concern that mining wastes used to reclaim surface mines should not be subject to RCRA. EPA believes, therefore, that the most reasonable interpretation of the "return to the mine site" phrase is one that limits the exemption to mining waste used to reclaim surface mines.

Commenters suggested that EPA define overburden as any material removed to gain access to the "economic mineral" or the "mineral being mined for use." While both terms basically convey the same meaning, EPA has decided to use "economic mineral" because it may have a clearer meaning to mining operators. The intent of the term is to identify the material that the mining operator is in the business to extract from the ground.

In keeping with the Congressional intent that this exclusion is designed for overburden used to reclaim surface mines, the definition is limited to overburden "overlying" a mineral deposit. The Department of the Interior makes a similar distinction in the definition of overburden in its regulations under the Surface Mining Control Act. EPA does not intend this definition of overburden to be limited exclusively to the material located directly above a mineral deposit. Some material is removed from the sides of a mining pit to permit safe access to the economic mineral, and such material should be treated as overburden. EPA urges the public to provide suggestions about how the definition may be refined if there appears to be any confusion about the meaning of "overlying" in this context.

Overburden material must be "returned to the mine site" before it is excluded from regulation under RCRA. As indicated earlier, the purpose of the exemption is to assure that mining wastes used to reclaim surface mines are not subject to regulation as solid or hazardous waste. EPA recognizes that reclamation does not necessarily involve replacement of overburden into the portion of the ground from which it was taken. EPA also recognizes that surface mining reclamation may be subject to State or Federal regulation, making it difficult to provide a national definition of what constitutes reclamation. In particular it is difficult to provide a general definition of "mine site" that will fit with the various State and federal requirements for reclamation.

EPA has decided, therefore, not to define what is meant by reclamation of a surface mine. Several commenters indicated that most reclamation activities are subject to State or Federal regulation. EPA expects that any permits or reclamation plans developed to satisfy such regulatory agencies will specify the reclaimed area, and these actions should provide an acceptable and understandable specification of the "mine site" as that term is used in this definition. EPA contemplated limiting the exemption to reclamation that was approved by State or Federal agencies. While such a requirement is not part of this regulation, EPA is considering whether such a requirement should be part of the final definition. EPA seeks public comment on such a modification and is particularly interested to discover the extent to which environmentally sound reclamation activity occurs in the absence of Federal and State regulation.

This approach addresses two specific suggestions made in comments. First it clarifies the time component of the "returned to the mine site" concept because it ties the exemption to reclamation activity. Particularly where the mining operation is subject to State or Federal regulation, it should be reasonably clear what portion of the mine's overburden will be used over what period of time to implement a reclamation plan. Second, as indicated above, it eliminates the need for a specific definition of mine site. In any case, EPA does not believe, as one commenter suggested, that the definition of "mine" used in the Agency's Effluent Limitations Guidelines for the Ore Mining and Dressing Point Source Category (under the Clean Water Act) is appropriate for this definition. The CWA definition is designed to identify a full range of mining and associated activities that should be regulated because they generate pollutants which may potentially discharge into navigable waters. The RCRA definition of "mine site" is to identify a reclaimed area that may receive a waste material which will thereby be excluded from environmental regulation under RCRA.

Finally the Agency has eliminated the part of the proposed exemption that would allow exempted overburden to be brought within RCRA jurisdiction through specific listing as a hazardous waste. (EPA believes, however, that uranium mining overburden and phosphate mining overburden will be brought back under Subtitle C jurisdiction, as discussed below.) The only overburden exempted is that which is used for reclamation purposes. EPA expects that the State and Federal agencies that regulate such reclamation will consider the overburden's potential to adversely affect public health and the environment.

EPA believes strongly that portions of the overburden from uranium and phospate mining should be regulated under Subtitle C with respect to their potential emissions of radon gas and gamma radiation. The Agency

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recognizes that this is an issue currently before the Congress in amendments to RCRA. One such amendment would provide specific authority for EPA to regulate these overburdens. If this amendment is enacted, the "overburden returned to the mine site" exclusion will be modified accordingly.

Commenters also questioned the application of the Subtitle C system to in-situ mining wastes. In-situ mining of oil shale, uranium and other minerals may involve the placement of certain solvent solutions directly to a mineral deposit in the ground. This solvent passes through the earth, solubilizing the economic mineral as it goes. The mineral and solvent mixture leaches down to underground extraction wells which remove the solution.

EPA does not believe that the soil through which these solvent solutions pass is a waste to be regulated under RCRA for two reasons. First the removal of materials from their natural state does not transform all remaining elements of that environment into a waste material. For example, picking an apple from a tree does not transform the tree into a solid waste. Likewise the removal of minerals from the land does not make the earth a solid waste.

Second, the soil from which minerals are extracted by in-situ mining does not need to be managed as solid wastes. As indicated in *United States Brewers' Association, Inc.* v. *EPA, supra.*, the definition of "solid waste" under RCRA must be read in conjunction with Section 1004(28), the definition of "solid waste management," which sets forth the broad set of activities that RCRA is to regulate. None of the management activities identified in Section 1004(28), including "disposal," are relevant to in-place materials located hundreds, even thousands of feet below the ground. Only when these materials are actually removed from the ground can it be reasonable to establish regulations governing the management of those materials. Accordingly in-situ mining wastes, not removed from the ground, are not regulated as solid wastes under these regulations.

A final issue raised in the public comments concerns the relationship between these regulations and the study of mining wastes required under Section 8002(f) of RCRA. Commenters argued that all mining wastes should be excluded from coverage under RCRA regulatory programs (including Subtitle C) pending the outcome of that study.

While the study will certainly assist the Agency in refining these regulations to address the particular environmental problems presented by mining wastes, the Agency does not believe that mining wastes should be excluded from regulation, any more than any other solid or hazardous waste, until the study is completed. RCRA certainly does not require such a deferral. The fact that the Congress may have perceived a need for further information about mining wastes does not raise the implication that RCRA's regulatory programs should not address the environmental problems presented by such wastes. The definition of "solid waste" in Section 1004(27) specifically includes wastes from mining operations and no other statutory provision otherwise links EPA's jurisdiction over such wastes to completion of the study under Section 8002(f).

It is important to note that pending amendments to RCRA may provide for deferral of regulation of certain mining wastes until completion of the mining waste study. Clearly that indicates a Congressional belief that any deferral of regulation pending the outcome of the study was not contained in RCRA as originally enacted. Certainly if the legislative amendment is passed EPA will modify these regulations accordingly. The Agency has not, however, created such a deferral in anticipation of such an amendment because the amendment is contained in the bill of only one house. Thus the Agency cannot be certain that such an amendment will be part of the final legislation.

7. *Sewage Sludge.* Unlike the proposed regulation this regulation does not exclude from regulation under Subtitle C sewage sludge from publicly-owned treatment works (POTW's). Several commenters objected to the exclusion contained in the proposed regulation, arguing that it was inconsistent to exclude sewage sludge from POTW's and not exclude sewage sludge from privately-owned systems. They urged EPA to exclude sewage sludge from such private systems. Other commenters urged EPA to exclude wastewater treatment sludges from certain industries such as the meat packing and food processing industries because these sludges are very similar to domestic sewage sludge.

Finally, other commenters objected to the proposed exclusion of sewage sludge from POTW's and urged that this exclusion be dropped. They claimed that POTW sludge often is very contaminated and thereby can be a hazardous waste. They urged that it not enjoy an arbitrary exclusion. EPA has thoroughly re-examined this issue in light of the comments and has decided not to exclude POTW sludge and not to add exclusions for any other types of sludge.

The regulation of sewage sludge is necessarily a complex matter because such sludges fall within the jurisdiction of several Federal environmental programs. Under Section 1004(27) of RCRA, the definition of "solid waste" specifically includes "sludge from a waste treatment plant." In defining "sludge," Section 1004(26A) includes wastes from a "*municipal* wastewater treatment plant."

Because of these very clear statutory expressions, EPA must regulate sewage sludge under RCRA—either under Subtitle D, where it has already promulgated regulations covering sewage sludge (see 44 FR 53438 *et. seq.*), or under Subtitle C where these sludges that are deemed by EPA to be hazardous wastes should be regulated.

Under Section 102 of the Marine Protection, Research and Sanctuaries Act, EPA regulates the ocean dumping of sludge, including sewage sludge. In addition EPA establishes, under Section 405 of the Clean Water Act (CWA), guidelines for the disposal and utilization of sewage sludge. Under Section 405(e), owners and operators of publicly owned treatment works (POTW's) must comply with these guidelines. Sewage sludge often contains valuable organic matter and plant nutrients, and it may be distributed to the public as a soil conditioner or fertilizer. Such distribution of sewage sludge may be regulated under the Consumer Product Safety Act (CPSA) or the Toxic Substances Control Act (TSCA), in addition to Section 405 of the CWA.

Where such overlapping jurisdiction exists, EPA seeks to integrate and coordinate its regulatory actions to the extent feasible. Such efforts give the regulated community a clear picture of its obligations and improve the administrative efficiency of the Agency, both of which advance the environmental objectives contained in EPA's various statutory authorities. Section 1006 of RCRA specifically recognizes the need to integrate the solid and hazardous waste programs with other EPA regulatory programs.

To that end EPA has decided to develop a comprehensive set of regulations to deal with sewage sludge management. Such regulations would be co-promulgated under RCRA (Subtitles C and D), the Clean Water Act, the Marine Protection, Research and Sanctuaries Act and possibly the Toxic Substances Control Act and/or the Consumer Product Safety Act. These regulations will address sewage sludge

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from both private and public sources, including septic tank pumpings.

In devising such regulations the Agency will, of course, make the distinctions and classifications necessary to make the regulation comport with the goals and requirements of each statute. Under such a comprehensive regulation, sewage sludge that would otherwise meet the test for being hazardous under Subtitle C will be subject to requirements providing a level of protection to human health and the environment equivalent to that found in the Subtitle C regulations.

The Agency has issued and is developing regulations which will eventually be part of the comprehensive sewage sludge regulation. For example the Agency promulgated Criteria for the Classification of Solid Waste Disposal Facilities and Practices (44 FR 53438) on September 13, 1979. These regulations, which apply to sewage sludge, include special provisions for the land application of solid waste to food chain crops and for the prevention of disease from pathogens contained in sewage sludge and septic tank pumpings. EPA issued the Criteria under the authority of Sections 1008(a)(3) and 4004(a) of RCRA as well as Section 405(d) of the CWA. EPA has also published two technical bulletins that provide guidance on sludge management: "Municipal Sludge Management: Environmental Factors" (42 FR 57420) and "Application of Sludges and Wastewater to Agricultural Land; A Planning and Education Guide."

In addition the Agency is in the process of developing regulations on the distribution and marketing of sewage sludge which will focus on the use of such material as a soil conditioner or fertilizer. These regulations will, at a minimum, be promulgated under Section 405(d) of the CWA. The Agency is also examining whether TSCA or CPSA authorities may be used in developing these regulations.

The Agency's strategy for the development of a comprehensive sewage sludge management regulation will eventually result in the establishment of a separate regulation. Once such a regulation is in place, sewage sludge will be exempted from coverage under other sets of regulations. In particular sewage sludge that qualifies as a hazardous waste will be exempted from this Part and Parts 262 through 265 once this separate sewage sludge regulation, which will provide an equivalent level of protection, is issued in final form.

Pending promulgation of this comprehensive sewage sludge regulation, sewage sludge will not be specifically excluded from Subtitle C. Like any other solid waste, sewage sludge that exhibits any of the characteristics of hazardous waste established in this regulation must be managed as a hazardous waste.

Some commenters urged EPA to list sewage sludge as a hazardous waste, contending that it was particularly hazardous when used in the growing of food chain crops because of the potential plant uptake of cadmium, PCB's and other contaminants. The Agency has decided not to specifically list sewage sludge as a hazardous waste at this time.

It is difficult to make general determinations about the hazardousness of sewage sludge, particularly those produced by POTW's, because of the wide variations in sludge quality. The makeup of a given community's sewage sludge, for example, reflects the range of contaminants generated by the industrial and commercial activities in the area. The sludges of two POTW's will differ as much as the communities themselves.

Determinations about the hazardousness of sewage sludge must, therefore, involve the making of some distinctions between types of sludge. EPA anticipates that it may make such distinctions as part of its comprehensive sewage sludge management regulations. Thus, it is reasonable for EPA to determine whether categorical classifications of sewage sludges are appropriate as part of the Agency's effort to develop such a regulation.

In addition it should be recognized that the particular hazard identified by the commenters, namely uptake of contaminants in food-chain crops, is being addressed by existing regulations. As mentioned above, EPA has issued the Criteria for the Classification of Solid Waste Disposal Facilities and Practices under Subtitle D of RCRA, which place limits on the application of solid waste (including sewage sludge) to food-chain crops. In addition, it is developing regulations covering the distribution and marketing of sewage sludge, which often is used by consumers in gardens for growing food crops. EPA believes that these regulations address the commenter's particular concern about cadmium and PCB contamination in sludge.

E. Section 261.5 (Special Requirements for Hazardous Waste Produced by Small Quantity Generators)

1. *Introduction.* In enacting RCRA, Congress was responding to a problem of unknown magnitude and dimension. With specific reference to the generation of hazardous waste, the House Committee stated:

> One of the major problems to be addressed in the hazardous waste area is the lack of information concerning the components, volumes and sources of hazardous waste. To date there has been no survey or other wide ranging investigation of the sources of hazardous or potentially hazardous waste generation or disposal. As a result, little is known about the actual volume of hazardous waste being generated, the geographical distribution of the generators or the extent to which hazardous wastes are transported [H.R. Rep. at 26].

In the proposed regulation, EPA recognized that the principal focus of the regulatory program should be directed towards effectively controlling the hazardous waste generated by the larger sources of hazardous waste. The Agency was uncertain, however, about the most appropriate manner of regulating generators of small quantities of hazardous waste. The proposed regulations exempted from regulation retailers and any person who generated and disposed of hazardous waste in quantities of less than 100 kilograms in any one month period, provided that these generators disposed of their waste in a waste disposal facility meeting the RCRA Section 4004 criteria or in a facility permitted to manage hazardous waste. In the preamble to the proposal, EPA explained the rationale for this exemption as follows:

> The principal element of this issue is how to balance the need to protect human health and the environment from the adverse impact of potential mismanagement of small quantities of hazardous waste with the need to hold the administrative and economic burden of management of these wastes under RCRA within reasonable and practical limits (43 FR 58970).

Since the time of proposal, the Agency has received and developed considerable information on the issue of the appropriate degree and manner of regulating small quantities of hazardous waste. The information obtained in this process indicates that the number of persons generating hazardous wastes is staggering. There are an estimated 760,000 large and small generators of hazardous wastes producing over 60 million tons of hazardous waste a year. The greatest amount of these wastes comes from very large generators, typically large manufacturing facilities. Just over 5 percent, or 40,000, of the total number of generators produce more than 5000 kg/mo of hazardous wastes; yet, these large generators produce 97.7 percent of the total quantity of hazardous waste. Roughly 91 percent, or 695,000 of the generators, produce less than 1000 kg/mo, yet contribute only one

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percent, or 600,000 tons per year, of the total hazardous waste generated. At levels of generation below 100 kg/mo, 74 percent, or 563,000, of the generators produce only 0.23 percent, or 138,000 tons per year of hazardous waste.

The types of business activity generating small quantities of hazardous waste differ markedly from those generating large quantities of hazardous waste. In contrast to large quantity generators, which are almost entirely from the manufacturing sector, over 89 percent of the small generators—those producing hazardous waste at rates of less than 1000 kg/mo—are from the non-manufacturing sector. These generators are scattered among such diverse sectors as construction, special trade contractors (e.g. plumbers, electricians), secondary schools, and local transportation systems. Gasoline service stations and automobile repair garages (for wastes *other* than waste lubricating oil) comprise nearly 30 percent of these non-manufacturing small generators of hazardous waste.

The Agency has determined that the enormous number of small generators, if brought entirely within the Subtitle C regulatory system, would far outstrip the limited Agency resources necessary to achieve effective implementation.

The information developed in the rulemaking process has led EPA to adopt, in the final regulations, a system which incorporates various aspects of the different approaches suggested in the preamble to the proposed rule. The final regulation sets low (1 to 100 kg/mo) quantity exclusion limits for certain extremely hazardous wastes; sets an initial general exclusion limit for generators of less than 1000 kg/mo of all other hazardous wastes; and conditions this general exclusion to assure that excluded wastes are disposed of in either authorized hazardous waste management facilities or facilities approved by a State for municipal or industrial wastes. EPA believes the approach adopted will allow EPA and the States to initially focus implementation and enforcement of the Subtitle C regulatory program on those generators of hazardous waste who are presently producing 99 percent of all hazardous waste. In addition, the Agency will initiate rulemaking within 2 to 5 years to phase-in expanded Subtitle C coverage of small generators down to those generating more than 100 kg/mo quantities.

The final rule does not exempt retailers from coverage as did the proposed regulations. In the preamble to the proposed rule the Agency stated its belief that retailers rarely generate more than 100 kg/mo. However, commenters argued, and the Agency agrees, that some retailers may generate extremely hazardous wastes. Furthermore, some generators, such as large hardware or garden stores may generate substantial quantities of hazardous waste. To the extent that retailers do generate only very small quantities, they will be exempted by the exclusion level provided in the regulations. Thus, in the final regulation, retailers who generate hazardous waste are subject to the same requirements as any other generator.

The background document responds fully to the diverse and numerous comments received on the proposed exemption of generators of small quantities of hazardous waste. This preamble will discuss the issue raised most frequently during the comment period—the consideration of hazard in establishing quantity limitations for hazardous wastes—and the rationale for setting an initial quantity exclusion of 1000 kg/mo and for phasing down the exclusion to 100 kg/mo.

2. *Consideration of Hazard in Establishing Quantity Limitations.* A number of commenters stated that EPA should use consideration of hazard in determining the scope of regulatory coverage. Two methods were suggested: (1) Using quantity to define hazardous waste pursuant to Section 1005(5) of RCRA, i.e., determining the level for each waste below which it does not pose a substantial hazard to human health and the environment when improperly managed; or, (2) considering the degree of hazard presented by a particular waste to establish different levels or types of controls. Although both approaches are attractive, the Agency lacks at present the ability to use either approach in any extensive fashion, and therefore has had to adopt a general exclusion level.

3. *Using Quantity to Determine That a Waste is Hazardous.* The Agency considered whether the small quantity issue could be addressed through consideration of quantity in the definition of hazardous waste. Specifically, the Agency considered whether small quantity exclusion limits could be established by defining *de minimis* quantities below which a waste would not be hazardous under the statutory definition in Section 1005(5) of RCRA, i.e., below which no substantial hazard to human health and the environment exists under conditions of improper management. However, the Agency has not been able to find a way of determining *de minimis* quantities. To do so would require knowledge not only about the intrinsic properties of a waste but also about the possible *exposures* that attend various small quantities of waste under various plausible scenarios of waste mismanagement. Such exposure assessments require consideration of waste properties, numerous site-specific conditions, and alternative management scenarios. For example, the levels of exposure and hazard which could result from leaching of toxic constituents from a particular hazardous sludge in a landfill would depend on factors such as the persistence of the waste, site hydrogeology, depth to the groundwater, the attenuation of the constituent in the underground environment (including degradation of the constituent and its dilution in the groundwater), and the location of persons using the groundwater. The problem is made more complex by the fact that many wastes may be managed in several alternative ways, such as land disposal, treatment, or incineration, and each of these types of management exhibits different exposure and risk patterns.

Given current knowledge and information, these assessments cannot be made for most wastes with sufficient precision to determine the specific quantities which represent a threshold for finding a waste hazardous. Therefore, the Agency has not been able to establish *de minimis* quantities for defining hazardous wastes. The Agency must therefore consider all quantities of any waste listed or identified in Part 261 to be hazardous.

4. *Inability of the Agency to Use Degree of Hazard.* Because the Agency was unable to use quantity in determining whether a waste is hazardous, it considered using degree of hazard in determining the appropriate quantity exclusion level. Commenters heavily supported establishing exclusion limits based on degree of hazard of various wastes. These suggestions were part of a broader set of comments which recommended that the Agency establish a degree of hazard system that placed wastes into two or more levels of hazard depending on the risk that those wastes present to public health and the environment. Commenters argued that such a system could be used as a basis for phasing regulatory coverage, tailoring waste management standards, and establishing small quantity exclusion levels.

The Agency's response to the full scope of the degree of hazard proposals is included in the preamble to the Part 264 and 265 regulations being promulgated today. As explained there, the Agency has not adopted a degree of hazard system in the final regulations. Among other reasons, the Agency

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concluded that none of the degree of hazard systems suggested by commenters, nor any it could itself conceive, is capable of comprehensively distinguishing different degrees of hazard among the myriad of hazardous wastes without application of very subjective judgment. This precluded establishing small quantity exemptions based on a hierarchy of hazard levels.

While the Agency has not found it possible to establish a comprehensive hazard ranking system, the Agency has attempted on a limited basis to make hazard distinctions in establishing small quantity cutoffs. The Agency has established very low exclusion limits for certain very acutely toxic or otherwise hazardous chemical products (if discarded), off-specification derivatives of those products, and the product containers and spill residues: The Agency may in the future establish specific (low) exclusion limits for other highly hazardous wastes on a case-by-case basis.

5. *Limited Administrative Resources Require Setting the Initial Exclusion Level at 1000 kg/mo.* EPA has decided to adopt for the present time, a general exclusion level of 1000 kg/mo. The Agency's basis for this decision is the current lack of sufficient administrative resources to allow the Agency and the States to effectively regulate all hazardous waste. Given that resource constraint, the Agency believes that the overall level of environmental protection which can be provided will be greater if the Agency focuses available resources on fully regulating wastes from large generators during the early years of regulation implementation rather than expanding the scope of regulatory coverage and achieving ineffectual implementation of a more ambitious program.

The primary reason for selecting 1000 kg/mo, i.e., the administrative impossibility of implementing at lower levels, deserves some elaboration. As noted earlier, regulation of all generators of hazardous waste would bring 760,000 persons into the regulatory system. Regulating only those persons who generate more than 100 kg/mo would exclude from the program 560,000 generators, 73.9 percent of the total. If the exclusion level were set at 1000 kg/mo, 695,000 generators or 91.2 percent would be excluded from regulation. At a 5000 kg/mo level, 722,000 generators or 94.7 percent would be excluded.

In 1981, the first full year of implementing the Subtitle C controls, analyses of Agency and State workload requirements and available resources to implement the Subtitle C controls indicate that, if all generators were fully regulated, workload requirements would exceed resources available by 1100 to 1200 workyears. If generators of less than 100 kg/mo quantities were exempted from full regulation, the shortfall would be much less, but still a substantial 200 to 300 workyears. However, if generators of less than 1000 kg/mo quantities are exempted, the shortfall is projected to be less than 100 workyears, about 5 percent of the total workload requirements.

The resource constraints and shortfalls have direct significance for the operation of the entire regulatory program. To expand the coverage to smaller generators would require direct sacrifices from other elements of the program, most notably regulation and enforcement of large generators, permitting of treatment, storage and disposal facilities, and enforcement and inspection of these facilities. Furthermore, with greater resource demands and projected shortfalls, greater difficulties are likely in the ability of States to obtain authorization to administer the program in lieu of the Federal government.

Given the enormity of the implementation task and the limited administrative resources, EPA has been forced to make difficult allocation decisions. Expanding the coverage of generators would entail direct sacrifices from other essential program components. The determination of the proper exclusion level in the final regulation represents a complicated balancing of a variety of factors. The decision reflects a judgment by the Agency that the overall environmental objectives will be best served by selecting a level which promises full and effective implementation of all elements of the program rather than one that promises ineffective implementation of a more ambitious program.

Accordingly, EPA has decided to establish for the present time a conditioned exclusion of hazardous wastes from generators who produce less than 1000 kilograms a month. This level will enable EPA to direct its attention to the effective regulation of 99 percent of the total wastes generated, and will entail only insignificant, if any, sacrifices in the task of issuing permits to hazardous waste management facilities.

In addition, the exclusion is not unqualified; generators of small quantities of hazardous waste must ensure that their wastes go to facilities that are approved by the State to handle municipal or industrial wastes. For most of these facilities the commingling of small quantities of hazardous waste with large quantities of non-hazardous waste is likely to minimize environmental problems attributable to the hazardous waste, particularly since dilution levels at a 1000 kg exclusion are generally at least 100 to 1. Importantly, this approach will give State agencies more flexibility in dealing with small quantity generators. If a State determines that certain types of exempted hazardous waste should not be managed in a particular non-hazardous facility, it can deal with that situation directly.

The Agency considered other types of reduced administrative or technical requirements for exempted generators, including various subsets of the full Subtitle C requirements. A limited number of commenters suggested particular reduced requirements which they felt would provide limited but necessary controls. The Agency's analysis of various reduced Subtitle C requirements indicated that they would either provide an insignificant level of additional control, or that they would not substantially reduce the administrative burden of the full Subtitle C requirements. Thus, the Agency decided to impose only the condition stated above.

6. *Phasing Down the Coverage of Small Quantity Generators.* On the basis of information presently available to the Agency, it appears that a general exclusion level of 100 kg/mo would better achieve the environmental protection objectives of Subtitle C. Therefore, EPA intends to initiate rulemaking within 2 to 5 years to expand Subtitle C coverage down to generators of 100 kg/mo. During this process, the Agency will consider the need for any special regulatory requirements to deal with any unique problems associated with these wastes.

A number of commenters argued that phasing regulatory coverage of small generators would significantly benefit the administration of the hazardous waste management program. The Agency believes that because of limited resources, the Agency *must* phase its regulation of small generators to be able to fully implement the Subtitle C controls on large generators, transporters, and waste management facilities.

7. *Environmental Considerations.* The information that the Agency was able to develop on the environmental impacts of different quantity cutoff levels was not fully conclusive. However, the data indicate that an exclusion level of 100 kg/mo, coupled with lower exclusions for certain highly hazardous wastes, and disposal of excluded waste in Subtitle C or State approved facilities will, in most

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cases, minimize adverse impacts on human health and the environment.

The review of damage cases tends to support a 100 kg/mo exclusion level. First, there were very few damage cases involving quantities below that level. Second, those few cases involved indiscriminate dumping rather than disposal in managed facilities. This suggested that disposal of quantities less than 100 kilograms in a managed facility might provide sufficient environmental protection, even if the managed facility was not authorized to handle hazardous waste. Of the 11 damage incidents involving the disposal of less than 1000 kg quantities of hazardous waste in managed facilities the environmental damage or personal injury occurred in nine of the incidents because of mismanagement of single containers, i.e., 55 gallon drums of ignitable, corrosive or reactive materials. Setting the exclusion level at 100 kg/mo would in most cases ensure that single, full drums would be properly packaged and labeled, manifested and sent to Subtitle C facilities. A higher exclusion level would not provide this assurance.

Wastes generated by small quantity generators at the 100 kg/mo exclusion level comprise only 0.23 percent of all hazardous waste. The environmental analysis showed that these small generator hazardous wastes are typically mixed by the generator with non-hazardous wastes and subsequently disposed of in waste management facilities for municipal waste. If these mixed wastes were evenly distributed to such facilities, the dilution ratio of non-hazardous to hazardous waste would be roughly 900 to 1 at a 100 kg/mo exclusion limit.

Although even distribution will not occur, EPA believes that very large dilution ratios will result in most situations with a 100 kg/mo exclusion level. This is because 92 percent of the small generators (producing less than 100 kg/mo) are in the non-manufacturing sector and are distributed in reasonable proportion to population and, therefore, in reasonable proportion to quantities of diluting non-hazardous municipal wastes. The effect of even distribution and high dilution is to spread and, thereby, minimize exposure and risk. Although this effect cannot be assessed with great precision, it is not unreasonable to assume that human health exposure and risk is significantly reduced at dilution ratios of several hundred to 1.

8. *Resource Considerations.* Projecting administrative resources into the future is inherently speculative, requiring various assumptions and estimates of State and Agency budgets, and implementation workloads. The Agency studies assumed constant budgets, and predicted the administrative shortfall to become exacerbated, rather than reduced over time. Other projections, presented in the background document for small generators, also suggest some resource difficulties in phasing-in the coverage of small generators, but these projections show that the resource picture may improve over time. The Agency, however, believes it is appropriate to expand its regulatory coverage of small quantity generators, and will be seeking the budgetary increases necessary to accomplish that phasing. Additionally, once the regulatory apparatus is in place and operating, the Agency will be able to reassess the ability to achieve more comprehensive coverage by means of allocating its resources differently than presently projected.

F. Section 261.6 (Special Requirements for Hazardous Waste Which Is Used, Re-used, Recycled or Reclaimed)

This section sets forth the applicability of the Subtitle C regulations to the storage and transportation of hazardous waste sludges and hazardous wastes listed in Subpart D that are used, re-used, recycled or reclaimed. It also provides for the exclusion from regulation of all other aspects of the use, re-use, recycling or reclamation of hazardous waste until EPA promulgates regulations to the contrary. The content of and rulemaking considerations that went into this section are fully discussed in Section IV. B. of this preamble.

V. Subpart B—Criteria for Identifying Characteristics of Hazardous Waste and for Listing Hazardous Waste

A. Section 261.10 (Criterio for Identifying the Characteristics of Hazardous Wastes)

Section 3001 of the Act requires EPA to develop and promulgate criteria for identifying the characteristics of hazardous waste. The proposed regulations identified two such criteria. The first criterion was that the characteristic be capable of being defined in terms of physical, chemical or other properties which cause the waste to meet the definition of hazardous waste in the Act. This criterion embodied the simple but fundamental notion that a characteristic of hazardous waste must be one which causes the waste to be a hazardous waste within the meaning of the statutory definition. The second criterion was that the properties defining the characteristic be measurable by standardized and available testing protocols. EPA adopted this second criterion in recognition that the primary responsibility for determining whether wastes exhibit the characteristics rests with generators. It believed that unless generators were provided with widely available and uncomplicated test methods for determining whether their wastes exhibited the characteristics, the system would prove unworkable. Largely in reliance on this second criterion, EPA refrained from adding organic toxicity, carcinogenicity, mutagenicity, teratogenicity, bioaccumulation potential and phytotoxicity to the set of proposed characteristics and instead left it to listing mechanism to capture wastes exhibiting these properties. EPA considered the available test protocols for measuring these characteristics to be either insufficiently developed or too complex and too highly dependent on the use of skilled personnel and special equipment. Additionally, given the current state of the knowledge concerning such properties, EPA did not feel that it could define with any confidence the numerical threshold level at which wastes exhibiting these characteristics would present a substantial hazard. Furthermore, it questioned whether these tests sufficiently took into account the multiple factors which bore on the question of the hazardousness of such wastes.

EPA received a few comments on its proposed criteria for identifying characteristics, the most significant of which addressed the appropriate use of the identified characteristics. A number of commenters contended that EPA did not have authority to require generators to assess their wastes in accordance with the characteristics. These commenters were generally concerned about the burden placed on generators by such a requirement and argued that the characteristrics should only be used by the Agency in listing hazardous wastes. Other commenters believed that EPA was fully justified in requiring generators to assess their wastes in accordance with the identified characteristics and felt that this would assure the broadest possible coverage for hazardous wastes.

EPA disagrees with those commenters who argue that EPA has no authority to require generators to determine if their wastes exhibit any of the characteristics. Throughout the statute, Congress made reference to two alternative mechanisms for bringing a waste into the hazardous waste system—identification through characteristics, and listing. If Congress

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had intended the identified characteristics to he used solely by EPA in listing wastes, then there would have been no point in making a distinction between these two mechanisms. Consequently, since the determination of whether a waste exhibits the characteristics appears to require some action by someone other than EPA, the most reasonable interpretation of the statutory language is that it requires generators to assess their wastes in accordance with the EPA-identified characteristics. This interpretation of the statutory language is substantially reinforced by the provision in Section 3002(4) that generators may be required to furnish information on the general chemical composition of their waste—a requirement which presumes testing.

The final regulation makes a few slight changes in the language of the criteria for identifying characteristics in an attempt to clarify the meaning of the regulation and better reflect EPA's regulatory intent. First, EPA has omitted reference to damage incidents and scientific and technical information as bases for identifying characteristics, out of a conviction that this reference is unnecessary and in partial agreement with those who argued that damage incidents should not be heavily relied on in identifying characteristics. Second, EPA has omitted the redundant phrase "can be defined in terms of specific, physical, chemical, toxic, infectious, or other properties of a solid waste." Third, EPA has expanded the criterion of "measurability" to make clear that any test for measuring characteristics must be within the capability of the generator community and to provide that characteristics such as reactivity need not be accompanied by a testing protocol if the characteristic can be "reasonably detected by generators . . . through their knowledge of the waste."

B. Section 261.11 (Criteria for Listing Hazardous Waste)

In the proposed regulation, EPA specified two criteria for listing hazardous waste. The first criterion was that the waste possess one or more of the identified characteristics. The second criterion was that the waste meet the definition of hazardous waste found in Section 1004(5) of the Act.

The first criterion to a large extent reflected EPA's regulatory strategy at the time of the proposal. Under that strategy, EPA planned to identify and quantitatively define all of the characteristics of hazardous waste, including organic toxicity, carcinogenicity, mutagenicity, teratogenicity, bioaccumulation potential and phytotoxicity. Generators would be required to assess their wastes in accordance with these characteristics and EPA would list hazardous wastes where it had data indicating the wastes exhibited one of the identified characteristics. Listing would thus play a largely supplementary function and would serve as a device for injecting certainty into the process of hazardous waste determination. As noted above, however, EPA has found it impossible to fully effectuate this strategy because of the lack of suitably uncomplicated test protocols, the difficulty of establishing numerical hazardous threshold levels for these additional characteristics, and the failure of the available test protocols to fully incorporate all of the multiple factors bearing on the hazards presented by such characteristics.

The second criterion was adopted against the backdrop of this inability to capture all hazardous wastes through identified characteristics, and was intended to give the Agency an independent basis for capturing such wastes. Although this proposed criterion was admittedly somewhat general in nature, it implicitly incorporated the more specific criteria embodied in the delisting requirements and the waste codes which accompanied each listing—provisions which made it clear that EPA was specifically concerned with radioactive, mutagenic, bioaccumulative, toxic organic and infectious wastes. Thus, although EPA appeared to have prescribed for itself a very broad and inexact listing standard in the proposed regulation, in actuality the Agency followed a fairly particularized set of criteria in listing wastes.

EPA received a large number of comments in response to its proposed criteria for listing. None of these commenters objected to EPA's first criterion for listing wastes that exhibit one of the characteristics. A large number of commenters, however, objected to the second criterion. Many of these commenters felt that the mere articulation of the statutory definition as the basis for listing was circular and constituted an abrogation of EPA's statutory duty to establish criteria for listing which expand upon the statutory definition. Others argued that the second criterion was inappropriate because it failed to take into consideration such things as concentration, degradation potential and bioaccumulation potential—factors which are specifically mentioned by the Act.

EPA agrees that the proposed criterion for listing wastes which do not exhibit any of the characteristics was as a general matter, too broad. Accordingly, we have promulgated a considerably expanded and more specific set of criteria to take the place of the proposed criterion. These criteria are broken down into two categories—criteria for listing acutely hazardous waste and criteria for listing toxic waste.

The criteria for listing acutely hazardous waste are intended by EPA to serve as the criteria for identifying wastes which are so hazardous that they can be said to meet part (A) of the statutory definition of hazardous waste—i.e., wastes which may "cause, or significantly contribute to an increase in serious irreversible, or incapacitating reversible, illness", regardless of how they are managed. It is EPA's conviction that most wastes are hazardous only because they "pose a substantial present or potential hazard to human health or the environment *when improperly managed*" and thus meet part (B) of the statutory definition of hazardous waste. Nevertheless, EPA recognizes that there are wastes which are so acutely hazardous that they can be considered to present a substantial hazard whether improperly managed or not. EPA has defined this category of wastes to include those which have been shown to be fatal to humans in low doses or have been shown in mammalian studies to have an oral LD 50 toxicity of less than 50 milligrams per kilogram, (as determined using rats), an inhalation LC 50 toxicity of less than 2000 milligrams per cubic meter (as determined using rats), or a dermal LD 50 toxicity of less than 200 milligrams per kilogram (as determined using rabbits). Numerous government agencies and private organizations, including the Department of Transportation, the Consumer Product Safety Commission and the National Academy of Sciences, recognize that substances exhibiting these LD 50 and LC 50 toxicities are so potentially lethal as to be considered poisonous or acutely toxic. EPA has also defined this category of wastes to include wastes, such as explosives, which otherwise meet part (A) of the statutory definition of hazardous waste. This has been done in recognition that wastes may be acutely hazardous even if they are not toxic. Inasmuch as a waste will meet the acutely hazardous criteria only when the whole waste, rather than just its constituents, presents an acute hazard, EPA has employed and intends to employ these criteria primarily to list the discarded pure chemical substances and associated materials specified in § 261.33. EPA recognizes, however, that there may be

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wastes such as wastes containing substantial concentrations of potent carcinogens which meet these criteria even though they are not pure substances.

The criteria for listing toxic wastes are intended by EPA to identify all those wastes which are toxic, carcinogenic, mutagenic, teratogenic, phytotoxic, or toxic to aquatic species. These criteria provide that a waste will be listed where it contains any of a number of designated toxic constituents—unless, after consideration of certain specified factors, EPA concludes that the waste does not meet part (B) of the statutory definition of hazardous waste. As in the proposed regulation, the ultimate requirement for listing a waste as hazardous is whether it meets the definition of hazardous waste found in the Act. Unlike the proposed regulation, however, the final criteria significantly channel the route the Agency must follow in determining whether a waste meets the statutory definition. The first inquiry which must be made under the final criteria is whether the waste contains any of the toxic constituents listed in Appendix VIII. These constituents are ones which have been shown in reputable scientific studies to have toxic, carcinogenic, mutagenic or teratogenic effects on humans or other life forms and include such substances as those identified by the Agency's Carcinogen Assessment Group. Consequently, the presence of any of these constituents in the waste is presumed to be sufficient to list the waste unless after consideration of the designated multiple factors, EPA concludes the waste is not hazardous. These multiple factors include the type of toxic threat posed, the concentrations of the toxic constituents in the waste, the migration potential, persistence and degradation potential of the toxic constituents, the degree to which the toxic constituents bioaccumulate in ecosystems, the plausible types of improper management to which the waste could be subjected, the quantities of waste generated, and other factors not explicitly designated by the Act, including damage incidents involving wastes containing the toxic constituents and actions taken by other governmental agencies with respect to the waste or its toxic constituents.

EPA has adopted this flexible, multiple factor approach to listing rather than the formulaic approach embodied in the characteristics because it considers this approach to be better able to accommodate itself to complex determinations of hazard. EPA further believes that this multiple factor approach was to some extent contemplated by Congress. Most of the factors selected are specifically mentioned in Section 3001 of the Act. Additionally, the report which accompanied the Senate bill provided that at a minimum the Administrator should designate as hazardous each mixture of solid waste which contained a toxic or hazardous substance listed in section 112 of the Clean Air Act or section 307(a) and section 311(b) of the Clean Water Act unless he determined that the waste did not meet the criteria for identifying hazardous wastes. Senate Report 94-988, 94th Cong., 2d Sess. at 14. Thus the Senate bill, like EPA's final regulations, envisioned a presumption in favor of listing based on the presence of a toxic constituent in the waste which is rebuttable by a consideration of further factors. Although the Senate version of the bill was not adopted, the concept embodied therein was not specifically rejected in the final statute, providing some further basis for concluding that EPA's approach for listing toxic wastes reflects congressional intent.

As can be seen from the above discussion, the final criteria for listing reflect a change in emphasis in the Agency's regulatory strategy. EPA is not fully confident that it can suitably define and construct testing protocols for the characteristics of organic toxicity, carcinogenicity, mutagenicity, teratogenicity, bioaccumulation potential, phytotoxicity, radioactivity and infectiousness, and is consequently relying on the listing mechanism to bring wastes exhibiting these properties into the system. One negative aspect of this change in approach is that it shifts to EPA the primary burden for identifying, analyzing and evaluating these wastes with the result that it may take longer to achieve full regulatory coverage. This negative aspect is substantially offset, however, by the greater flexibility and assurance which the listing approach provides, especially when accompanied by the delisting procedure.

A notable difference between the approach embodied in the characteristics and the approach embodied in the criteria for listing is that EPA attaches less emphasis to waste constituent migration and subsequent environmental fate in the listing mechanism than in the characteristics. This is nowhere better demonstrated than in the listing of waste which contain primary drinking water standards contaminants. In listing wastes which contain primary drinking water standards contaminants EPA has elected to focus, in the first instance, on the actual presence of the toxic constituent in the waste and to treat other factors such as migration potential as essentially mitigating considerations which might render the waste non-hazardous. EPA feels justified in concentrating primarily on the composition of the waste because the listing mechanism allows for a more individualized consideration of hazard and because the delisting procedure affords generators an opportunity to demonstrate, through reliance on the specified factors, that their waste is not in fact hazardous. In the case of wastes exhibiting the characteristic of EP toxicity, on the other hand, there is no opportunity to make such a demonstration—since the test prescribed in the characteristic constitutes a final determination of hazard. Consequently, out of concern that the characteristic not be overinclusive, EPA has placed somewhat greater emphasis on migration potential and has rigorously incorporated this consideration into the EP test.

As noted in section III.A.3. of this preamble, EPA intends to supplement the listing criteria to allow listing of radioactive and infectious wastes. We are deferring promulgation of the criteria for listing radioactive wastes because we want to wait until Congress has spoken on this issue and because deferral will give EPA more time to refine its standards for listing these wastes and to coordinate these standards with the regulations governing used, re-used recovered, and reclaimed wastes. We are similarly deferring promulgation of the criteria for listing infectious wastes because we have not finished developing the treatment standards applicable to such wastes.

A few clarifying changes have been added to the final regulation. First, the regulation provides that EPA may list classes or types of wastes if it has reason to believe that all wastes within the class or type typically or frequently are hazardous. Second, the regulation provides that the criteria for listing will be used to establish the exclusion limits for acutely toxic wastes generated by small generators. These exclusion limits are referred to in § 261.5(c).

VI. Subpart C—Characteristics of Hazardous Waste

A. Section 261.20—General

This section is largely self-explanatory. It states that a solid waste is a hazardous waste if it exhibits any of the characteristics of hazardous waste, explains the assignment of EPA Hazardous Waste Numbers, and

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explains the method for obtaining a representative sample in testing for characteristics. Rather than specifying particular procedures to be used in obtaining representative samples, EPA is simply requiring the regulated community to obtain samples which meet the definition of representative sample found in Part 260 of the regulations. To provide some guidance concerning compliance with this requirement, EPA will consider any sample obtained using the sampling methods indexed in Appendix I to be a representative sample within the meaning of the Part 260 definition. Since, however, these sampling methods are not being officially required by EPA anyone desiring to use a different sampling method may do so without demonstrating the equivalency of that method under the procedures set forth in § 260.21.

B. Section 261.21 (Characteristic of Ignitability)

In the proposed regulation, EPA defined ignitable waste to include the following: (1) Liquids having a flashpoint of less than 140° F (60° C) (2) non-liquids liable to cause fires through friction, absorption of moisture, spontaneous chemical change or retained heat from manufacturing or liable, when ignited, to burn so vigorously and persistently as to create a hazard (3) ignitable compressed gases and (4) oxidizers.

EPA's objective was to identify wastes capable of causing fires during routine transportation, storage and disposal and wastes capable of severely exacerbating a fire once started. Such fires, EPA recognized, pose a particular danger to transportation and disposal personnel and also threaten the general public by generating toxic fumes and creating convection currents which transport toxic particulates to the surrounding area. EPA adopted the Department of Transportation's definitions of ignitable compressed gas and oxidizer and borrowed heavily from the Department of Transportation's definition of non-liquid ignitable because it believed these definitions adequately reflected routine waste management conditions. At the same time, it chose a flashpoint limit for ignitable liquid wastes different from that specified by the Department of Transportation's "flammable" liquid category because it believed that the flashpoint limit specified by the Department of Transportation did not fully reflect conditions likely to be encountered during routine waste management.

A large number of commenters argued that EPA should adopt the Department of Transportation's 100° F flashpoint for flammable liquids. These commenters argued that EPA's adoption of a different flashpoint limit from the Department of Transportation is not justified by conditions likely to be encountered during waste management and will create undue confusion in the regulated community.

The Agency disagrees with these commenters. A number of EPA studies reveal that ambient temperatures of 140° F are regularly encountered during landfill disposal. In such environments, liquid wastes with flashpoints lower than 140° F will readily volatilize and can be easily ignited by the numerous ignition sources to which wastes are exposed during management. The need to regulate such wastes is borne out by an early Department of Transportation study which recommended that the Department of Transportation adopt a flashpoint limit of 140° F for flammable liquids because temperatures of this order can be encountered during transportation. The commenters who argue that EPA's 140° F flashpoint limit is not justified by waste management conditions forget that, through the creation of its "combustible liquid" category, the Department of Transportation regulates liquids with flashpoints of up to 200° F—a tacit acknowledgement that EPA's 140° F flashpoint is well within the sphere of potential concern.

EPA does not believe that its ignitable liquids category will create undue confusion in the regulated community. The term "ignitable" was specifically chosen to eliminate confusion between EPA's "ignitable" liquids category and the Department of Transportation's "flammable" liquids category. Furthermore, EPA's ignitable liquids category is one with which the regulated community should already be familiar since it encompasses Class I and Class II liquids in the National Fire Protection Association's classification scheme. While EPA believes that maintaining consistency between its definitions of hazard and those of the Department of Transportation is a desirable goal, it does not believe that such consistency should be achieved at the expense of human health and environmental protection.

A number of commenters argued that the 140° F flashpoint for liquids improperly included many liquid wastes such as wine and some latex paints which exhibit low flashpoints because of their alcohol content but do not sustain combustion because of the high percentage of water present.

EPA agrees that such wastes should not be designated as hazardous, but unfortunately has no data on hand which identifies the correlation between the concentration of alcohol in such wastes and the established flashpoint of 140° F. Accordingly, it has for the time being opted to follow the Department of Transportation's lead and exclude from its ignitable liquids category aqueous solutions containing less than 24 percent of alcohol by volume. This exclusion will remove from the ignitability characteristic liquid wastes which the Agency knows may flash but not sustain combustion. In the meantime, EPA hopes to undertake further study to determine whether another exclusion limit is more appropriate and to evaluate tests which might be capable of identifying wastes which exhibit this phenomenon.

Many commenters argued that the proposed definition of solid ignitable wastes was too vague and that a testing protocol was needed to provide proper guidance. A number of these commenters took particular issue with the phrase ". . . or when ignited burns so vigorously and persistently as to create a hazard during its management . . ." which they felt could be construed to include such non-hazardous materials as bark, wood chips, wastepaper, sawdust, corrugated boxes, etc.

EPA agrees that the proposed definition of solid ignitable wastes was perhaps imprecise and could stand clarification. It has no intention of designating such things as wastepapor and sawdust to be hazardous and is only interested in capturing the small class of thermally unstable solids which are liable to cause fires through friction, absorption of moisture or spontaneous chemical changes. Accordingly, to eliminate any misunderstanding, we have changed the definition of ignitable solid to read ". . . *and* when ignited burns so vigorously and persistently that it creates a hazard."

Although EPA would have preferred providing a test method for identifying ignitable solids, it has determined, after diligent inquiry, that there are no test methods capable of accurately identifying the small class of ignitable solids to which its regulation is directed. EPA is presently working with the Department of Transportation and other organizations to correct this deficiency. In the meantime, the absence of a test should not cause too much of a problem since generators of thermally unstable solids, like generators of reactive wastes, are likely to be aware that their waste exhibits this property.

A number of commenters argued that EPA improperly included in its definition of ignitable solids, wastes such as slags which are liable to cause

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fires through "retained heat from manufacturing or processing."

EPA agrees that these wastes should not be designated as hazardous and has accordingly deleted the phrase "or retained heat from manufacturing or processing" from the definition of ignitable solids. EPA was originally concerned that wastes such as slags, if placed in a landfill, could present a hazard by raising the temperature of other wastes to their flashpoints. It is now convinced that the likelihood of such high volume wastes being placed in a landfill is sufficiently small as not to warrant their regulation.

C. Section 261.22 (Characteristic of Corrosivity)

In the proposed regulation, EPA defined corrosive wastes to include (1) aqueous wastes exhibiting a pH of less than or equal to 3 or greater than or equal to 12 and (2) liquid wastes capable or corroding steel at a rate greater than 0.250 inches per year. This definition attempted to address the various hazards presented by corrosive wastes. EPA chose pH as one barometer of corrosivity because wastes exhibiting low or high pH can cause harm to human tissue, promote the migration of toxic contaminants from other wastes, react dangerously with other wastes, and harm aquatic life. EPA chose metal corrosion rate as its other barometer of corrosivity because wastes capable of corroding metal can escape from the containers in which they are segregated and liberate other wastes.

A majority of commenters argued that the proposed pH limits were unduly stringent. These commenters pointed out that the proposed upper pH limit of 12.0 would include many otherwise non-hazardous lime-stabilized wastes and sludges, thereby discouraging use of this valuable treatment technique. They further pointed out that the proposed lower pH limit of 3.0 would include a number of substances generally thought to be innocuous and many industrial wastewaters prior to neutralization. They questioned EPA's assertion that the proposed lower pH limit was needed to protect against tissue damage.

EPA agrees that the proposed pH limits were unnecessarily stringent and has accordingly adjusted the upper pH limit to 12.5 and the lower pH limit to 2.0. In originally establishing the proposed limits, EPA was confronted with the difficulty that while the tendency to promote the solubilization of heavy metal contaminants and to cause harmful reactions generally increases as pH approaches the upper and lower limits of the pH scale, there are no threshold levels for these effects. Consequently, to a significant extent, EPA based the proposed pH levels on studies demonstrating a correlation between pH and eye tissue damage. Since eye tissue is considered to be more sensitive than other human tissue, the proposed pH levels were unnecessarily conservative and had the unintended effect of inhibiting the use of such beneficial processes as the lime stabilization of wastes. The expanded pH range being adopted today rectifies this problem by excluding such things as lime stabilized wastes from the system. It also addresses the problem of tissue damage more realistically while at the same time providing ample protection against the solubilization of toxic contaminants and dangerous reactions.

A number of commenters commented on the need for addressing percent acidity and alkalinity in the pH provision of the corrosivity characteristic. A few commenters favored adding percent acidity/alkalinity to the pH provision because it would provide useful information for disposal purposes. Most commenters, however, felt that percent acidity/alkalinity should not be addressed because it would not add significantly to the determination of hazard and would require the use of a more complicated measurement technique.

EPA agrees with most commenters that the addition of percent acidity/alkalinity to the pH provision is unnecessary. Percent acidity/alkalinity provides an indication of the capacity of a waste to resist a change in pH and therefore to aid in the assessment of the hazard presented by a waste over the long term. However, it adds little to the assessment of the hazard posed by the waste during transportation, storage and initial disposal. Furthermore, because the capacity of a waste to retain low or high pH is as much a function of its disposal or storage environment as of its percent acidity/alkalinity, the Agency knows of no scientifically valid basis upon which to establish hazardous threshold levels of percent acidity/alkalinity. Accordingly, EPA has elected not to address percent acidity/alkalinity in the corrosivity characteristic.

A few comments were received on the need for including corrosive solids in the corrosivity characteristic. All advocated including solids in the corrosivity characteristic but none described situations where the improper disposal of such wastes would be likely to cause damage.

EPA has concluded that, inasmuch as the great majority of wastes are presumed to be in liquid or semi-liquid form, there is no demonstrated need to address corrosive solids at this time. EPA will, however, continue to seek information on the dangers presented by these wastes and will consider specific regulatory measures if the need for more control becomes apparent.

A number of commenters suggested that the corrosivity characteristic should address tissue damage more directly and employ a skin corrosion test. Several of these commenters pointed to a Consumer Product Safety Commission survey which ostensibly casts doubt on the ability of pH to predict tissue damage.

EPA believes that there is sufficient correlation between pH and tissue damage to justify the use of pH in a regulatory context, especially in view of the fact that it is using pH as a multi-purpose measure of many elements of concern. Requiring the regulated community to conduct skin corrosion tests, which necessitate the maintenance of special facilities and skilled personnel, would prove unnecessarily burdensome and would yield little in the way of extra results. Accordingly, EPA is not including a skin corrosion test in the final regulation.

At least one commenter noted that the NACE metal corrosion test specified in the proposed regulations permits variation in a number of test conditions. To correct this problem, EPA has standardized the conditions of the NACE test in its test methods guidance manual and has required generators to utilize this standardized version in running the test.

D. Section 261.23 (Characteristic of reactivity)

The proposed regulation defined reactive wastes to include wastes which (1) readily undergo violent chemical change (2) react violently or form potentially explosive mixtures with water (3) generate toxic fumes when mixed with water or, in the case of cyanide or sulfide bearing wastes, when exposed to mild acidic or basic conditions (4) explode when subjected to a strong initiating force (5) explode at normal temperatures and pressures or (6) fit within the Department of Transportation's forbidden explosives, Class A explosives, or Class B explosives classifications.

This definition was intended to identify wastes which, because of their extreme instability and tendency to react violently or explode, pose a problem at all stages of the waste management process. The definition was to a large extent a paraphrase of the narrative definition employed by the National Fire Protection Association, although test protocols for measuring thermal and shock instability were

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prescribed as a partial aid in assessing reactivity. The Agency chose to rely on a descriptive, prose definition of reactivity because the available tests for measuring the variegated class of effects embraced by the reactivity definition suffered from a number of deficiencies.

EPA received a large number of comments which argued that the prose definition of reactivity employed by EPA is too indefinite and vague and gives generators inadequate guidance in assessing the reactivity of their waste. These comments advocated replacing the prose definition with a numerically quantified definition accompanied by appropriate testing protocols.

EPA has attempted where possible to define hazardous waste characteristics in terms of specific, numerically quantified properties measurable by standardized testing protocols. The available test methods for reactivity, however, suffer from a number of generic and individual shortcomings which make a numerically quantified definition with accompanying test protocols inappropriate. First, these tests are too restrictive in scope and confine themselves to measuring how one specific aspect of reactivity correlates with a specific initiating condition or stress. No test is sufficiently general to even begin to measure the variety of different stresses and reactions found within the reactive classification. Second, because the reactivity of a waste sample is a function not just of its intensive properties such as density and composition but also of its extensive properties such as mass and surface area, the reactivity of the sample as measured by the tests will not necessarily reflect the reactivity of the whole waste. Third, most of the available tests are not of the "pass-fail" type and require subjective interpretation of the results.

The unavailability of suitable test methods for measuring reactivity should not cause problems. Most generators of reactive wastes are aware that their wastes possess this property and require special handling. This in because such wastes are dangerous to the generators' own operations and are rarely generated from unreactive feed stocks. Consequently, the prose definition should provide generators with sufficient guidance to enable them to determine whether their wastes are reactive.

A number of commenters argued that the two proposed test methods for measuring reactivity were, among other things, unreliable and difficult to interpret. EPA agrees with these commenters that the two proposed test methods—the Explosion Temperature Test and the Bureau of Explosives shock instability test suffer from a number of inadequacies and add little to the prose definition. Although the Explosion Temperature Test was originally thought to be a suitable method for measuring one aspect of reactivity, field testing demonstrates that this test requires subjective interpretation of the results. Re-evaluation of the shock instability test suggests that it too possesses problems which make its utility as a measure of reactivity questionable—especially in view of its narrow scope. Accordingly, EPA has stricken these two tests from the regulations except to the extent the Department of Transportation's definition of Class A explosives requires use of the shock instability test.

Several commenters took issue with the inclusion in the reactivity definition of any waste which "generates toxic gases, vapors or fumes when mixed with water" and "any cyanide or sulfide bearing waste which can generate toxic gases, vapors or fumes when exposed to mild acidic or basic conditions." These commenters complained that this language lacks specificity. As an example, they noted that quite a few things contain sulfides and cyanides in trace amounts and can generate minute quantities of hydrogen sulfide or hydrogen cyanide under acidic or basic conditions.

EPA agrees that the language in question could benefit from clarification. It has accordingly amended the regulation to include only those wastes which generate toxic gases, vapors and fumes in *"a quantity sufficient to present a danger to human health or the environment"*. It has also specified that, by mild acidic or basic conditions, it means pH conditions of between 2 and 12.5. This pH range was chosen because only waste inside this pH range can be managed without regard to the prohibitions imposed by Subtitle C. Consequently, these pH conditions are likely to be the most stringent encountered by cyanide and sulfide bearing wastes.

E. Section 261.24 (Characteristic of EP Toxicity)

There is persuasive evidence that the contamination of groundwater through the leaching of waste contaminants from land disposed wastes is one of the most prevalent pathways by which toxic waste constituents migrate to the environment. EPA's damage files contain numerous incidents of groundwater pollution resulting from the indiscriminate dumping and improper landfilling of wastes. Additionally, the legislative history of RCRA is replete with indications that such groundwater contamination was one of Congress' primary areas of concern. In the proposed regulation, EPA addressed this problem by developing a test procedure called the Extraction Procedure (EP) designed to identify wastes likely to leach hazardous concentrations of particular toxic constituents into the groundwater under conditions of improper management. Under this procedure, constituents were extracted from the waste in a manner designed to simulate the leaching action that occurs in landfills. This extract was then analyzed to determine whether it possessed any of the toxic contaminants identified in the National Interim Primary Drinking Water Standards (NIPDWS). If the extract contained any of the contaminants in concentrations 10 times greater than that specified in the National Interim Primary Drinking Water Standards, the waste was considered to be hazardous.

Like other test procedures employed to identify hazardous characteristics, the EP was intended to serve as a quick test for identifying wastes which are capable of posing a substantial present or potential hazard when improperly managed. Consequently, in devising the test, EPA necessarily had to make certain assumptions about the improper management to which toxic wastes capable of contaminating groundwater are likely to be subjected. In making such assumptions, EPA believed it important to employ a reasonably conservative mismanagement scenario—in view of the statutory mandate to protect human health and the environment, the broad statutory definition of hazardous waste and also because the phenomenon of long term leaching is only incompletely understood. On the other hand, EPA considered it important not to utilize a wholly implausible mismanagement scenario, since by doing so it would end up regulating as hazardous those wastes which were quite unlikely to ever cause a problem.

The result of these deliberations was a decision to model the EP upon a mismanagement scenario for toxic wastes which constitutes a prevalent form of improper management—namely, the co-disposal of toxic wastes in an actively decomposing municipal landfill which overlies a groundwater aquifer. EPA realized in making its co-disposal assumption that actively decomposing municipal waste landfills generate more aggressive leachate media than other landfills and thus, that its assumption was a relatively conservative one. It

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nevertheless believed the co-disposal assumption to be reasonable, first, because wastes are customarily landfilled, second, because most categories of waste have the potential to be disposed of in municipal waste landfills, third, because the predicted degree of contaminant concentration in leachate could occur with respect to wastes which are not likely to be disposed of in municipal landfills and fourth, because Congress expressed particular concern about the disposal of toxic wastes in municipal landfills. EPA also realized its assumption that the landfill overlies a groundwater aquifer was a relatively conservative one. It believed, however, that this assumption was consistent with its concern for the disposal of wastes in environmentally sensitive areas and with the fact that a groundwater body, once contaminated, may remain contaminated for a number of years. Furthermore, it believed this assumption to be somewhat mitigated by its further assumption that there would be some attenuation in the concentration of toxicants in the leachate between the point the leachate leaves the disposal site and the point the toxicants reach environmental receptors.

Taking these assumptions as its framework, EPA developed the EP test to simulate the physical processes which would occur in an actual landfill characterized by these assumptions. To simulate the acidic leaching medium which occurs in actively decomposing municipal landfills, EPA chose to employ an acetic acid leaching medium with a pH of 5.0 (±0.2). To simulate the leaching process, EPA specified a procedure requiring mixing of the solid component of the waste with the acidic leaching medium for a period of 24 hours. To duplicate the attenuation in concentration expected to occur between the point of leachate generation and the point of human or environmental exposure, EPA applied a dilution factor of 10 to the concentration of toxic constituents observed in the test extract.

EPA was convinced that the proposed EP represented a valid and acceptable test for identifying wastes likely to leach toxic constituents into groundwater. Because, however, this test was innovative in character and reflected a fair amount of groundbreaking inquiry, it drew the greatest response from the public of all the test protocols utilized in identifying the characteristics. The most important of these comments are discussed below.

A number of commenters expressed disagreement with EPA's proposed use of a 10-fold dilution factor to calculate the attenuation in toxicant concentration expected to occur between the point at which the leachate leaves the waste and the point of human or environmental exposure. Some commenters thought that the 10-fold dilution factor was too liberal and that no dilution factor would be more appropriate. The majority felt that the 10-fold dilution factor was too conservative and that a higher dilution factor would be more appropriate.

Choosing an attentuation factor which reasonably represents the amount of attenuation likely to occur in the real world was one of the most difficult problems EPA faced in formulating the EP—a problem which reflects in microcosm many of the difficulties of modeling complex physical processes with a short term test. As leachate migrates vertically from the landfill site towards the groundwater strata, a number of attenuating processes can occur—including adsorption, absorption, ion exchange, filtration, and dilution. When the leachate enters the groundwater zone its movement changes from vertical to horizontal and it will tend to form a slug or plume of contaminated water rather than mix generally with the groundwater flow. This plume of contaminants may experience some dilution, depending on the local geology, the groundwater flow, and the nature of the contaminants. Once the plume of contaminated water is drawn into a pumping well, some further dilution tends to take place, depending upon the amount of water withdrawn and the rate at which it is withdrawn. Unfortunately, all these attenuation mechanisms are dependent upon site specific conditions. While some sites may exhibit attenuation of 500-fold, others will exhibit very little attenuation at all. Moreover over time, a site that originally exhibits 500-fold attenuation may become so saturated that the attenuation mechanisms no longer work and the site begins to flush at the same rate at which it is charged.

In order to formulate a reasonable dilution factor, EPA assumed in the proposed regulations that leachate from the landfill passed unattenuated through the soil underlying the landfill to the groundwater zone and that drinking water wells were situated 500 feet down gradient from the landfill site. Relying on projections from a mathematical model which incorporated these assumptions and on empirical data from field analyses, EPA concluded that a dilution factor of 10 was a conservative, but reasonable, figure.

EPA has had an opportunity to carefully re-evaluate its original choice of a dilution factor and is now of the opinion that the 10-fold dilution factor was inappropriate. A number of considerations have prompted it to come to this conclusion. In the first place, EPA is concerned that, while the dilution factor plays a critically important role in determining the scope of coverage of the EP, there is relatively little empirical data upon which to base such an attenuation factor. It is consequently somewhat troubled by its assumption that the soil underlying the landfill is a delay mechanism only and that there is no attenuation in the concentration of toxic contaminants between the point of actual leachate generation and arrival at the groundwater aquifer. Second, in view of this uncertainty, EPA attaches some importance to the fact that there is no variance or "delisting" procedure for wastes which fail the EP. This absence of a variance procedure, while perfectly permissible, tends to magnify the consequences of a wastes being anomalously brought into the system by the EP. Third, EPA believes the EP to be a somewhat less precise instrument than the listing mechanism for determining hazard, inasmuch as the EP fails to take into account factors such as the concentration of toxicants in the waste itself and the quantity of waste generated which could have a bearing on the hazardousness of the waste. EPA consequently prefers to entrust determinations of marginal hazard to the listing mechanism rather than to the EP.

On the basis of these considerations, EPA has decided, pending the completion of further studies, to alter the proposed dilution factor by adopting an attenuation factor of 100. EPA is adopting a 100-fold attenuation factor because it is confident that anything which fails the EP at this factor has the potential to present a substantial hazard regardless of the attentuation mechanisms at play. If forthcoming studies demonstrate that another attenuation factor is more appropriate EPA will adjust the dilution factor accordingly.

EPA does not intend this alteration in the dilution factor to constitute what may be perceived as an untoward relaxation of the EP. It is simply electing to exercise a degree of caution in the face of the lack of empirical substantiation for its EP leaching test to ensure that the EP only captures wastes which are certain to present a substantial hazard. Since this alteration of the attenuation factor is based as much on EPA's desire to engage in

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cautionary rulemaking as on an environmental re-evaluation of the attenuative processes which influence concentrations in leachate, EPA has listed and intends to continue to list wastes which have extract concentrations of less than 100-times drinking water standards. This listing will to a significant degree compensate for the alteration in the attenuation factor and will prevent the overall coverage of the Subtitle C regulations from being measurably reduced.

A number of commenters argued that EPA improperly based the EP on a mismanagement scenario which assumed co-disposal in the acidic environment of a municipal waste landfill. These commenters generally argued that the co-disposal assumption is inapplicable to numerous classes of waste which are never co-disposed with municipal wastes and which do not leach at the aggressive rates characteristic of co-disposal situations. These commenters suggested that EPA employ an alternative leachate medium, such as distilled water, for those wastes which are unlikely to be co-disposed with municipal wastes.

EPA disagrees with these commenters. EPA believes that the level of leachate concentration predicted by the EP is reasonably in keeping with the concentrations which could realistically occur in most waste management situations and that employment of an acidic leaching medium is therefore appropriate. Most wastes, even those which are unlikely to be disposed of in a municipal landfill, are likely to come into contact with some form of acidic leaching media during their management histories or could otherwise encounter environments which could cause them to leach comparable levels of toxic constitutents. Furthermore, inasmuch as the phenomenon of long term leaching is not well understood and there is no consensus within the scientific community on a short term leaching test, EPA believes it has the power to employ a leaching model which fails to take into account the physical processes affecting particular generators even if this model errs on the side of caution. See, *Ethyl Corp.* v. *EPA*, 541 F.2d 1, 24–29 (D.C. Cir. 1976 *en banc*); *Hercules, Inc.* v. *EPA*, 598 F.2d 91, 104–106 (D.C. Cir. 1976).

In any event, the change to an attenuation factor of 100 lays to rest the concerns of those who argued that the acidic leaching medium was too aggressive to apply to them. EPA is quite convinced that any waste which fails the EP at the 100-times standard presents the potential for substantial hazard if improperly managed no matter what leaching media it is actually exposed to.

A number of commenters argued that the EP is not sufficiently reproducible for use in defining hazardous waste. Some commenters, basing their argument on studies which have been conducted on the reproducibility of the EP, argued that these studies demonstrate an unacceptable variability in the results obtained by the EP. Other commenters, who did not base their arguments on these studies, argued simply that EPA has not shown the EP to be reproducible and therefore may not appropriately employ the EP in a regulatory framework.

EPA disagrees. Sensitive throughout the process of developing the EP to the issue of ensuring reproducibility, EPA commissioned a number of studies to evaluate the EP, including a study by the NUS Corporation, a study by the American Electroplaters' Society, and an ougoing study being conducted by the Oak Ridge National Laboratory. In addition, a study commissioned by the Electric Power Research Institute (EPRI) has been completed. None of these studies present enough data to draw any hard and fast conclusions. However, data from the EPRI report—the only report which was able to separate out the reproducibility of the EP from the reproducibility of the analytical procedures—suggests that the reproducibility of the EP itself is of the same order of magnitude as the analytical procedures used to analyze the toxic constituents in the extract. Since these analytical procedures have proven to be widely acceptable to private industry, EPA believes that the EP should also prove acceptable.

EPA concedes that the preliminary data indicate some variability in the results obtained by the EP. This, however, is true of all analytical procedures and test methods, especially those which are novel in character. Furthermore, variability can be easily corrected by running further replicates of the test to achieve greater certainty in the results. To accommodate any problems with variability, EPA intends to provide generators with guidance on the number of extractions which they can perform if they want to ensure confidence in the result. In addition, EPA is engaged in research studies which will enable it to further isolate and get a handle on the causes of this variability.

A number of commenters argued that extract from the EP should be tested for toxic contaminants other than those specified in the National Interim Primary Drinking Water Standards.

EPA originally intended the extraction procedure to identify toxic contaminants other than those specified in the National Interim Primary Drinking Water Standards. EPA has been unable to do this, however, because no other chronic exposure threshold levels relating to drinking water consumption have been established for other contaminants. This should not cause a problem, because EPA is regulating wastes containing non-drinking water standard contaminants through the listing process. EPA will reassess its position on this issue, when thresholds are developed for additional contaminants or when the Clean Water Act Water Quality Criteria are adopted in final form.

The proposed EP required generators to separate the liquid and solid portions of their waste as the first step of the procedure, based on the assumption that the liquid portion of the waste would flow out of the landfill independent of any leaching action. Generators were then required to mix the separated solid portion with the acidic leaching medium and, after a further separation, combine the resulting extract with the originally separated liquid portion for analysis. EPA gave generators the option of using either centrifugation or filtration to perform the initial solid-liquid separation and to perform the subsequent separation of solid from leaching solution. However, information obtained since publication of the proposed regulation indicates that use of centrifugation alone is not as efficient as filtration and can lead to carryover of particles larger than 0.45 um. Since a filter the size of 0.45 um was originally selected because particles larger than 0.45 um are expected to be filtered out by the soil prior to reaching the groundwater, EPA has revised the EP to require filtration of both the liquid portion and the extract prior to analysis.

A number of commenters said they encountered severe operational problems when performing the EP on liquids containing very small percentages of solids. To accommodate this problem, EPA is amending the proposed regulation so generators need not perform the EP on liquids containing less than 0.5% solids. Instead, the liquid itself, after filtration, should be considered the extract and directly analyzed for its toxic constituents.

VII. Subpart D

A. Sections 261.31 and 261.32 (Hazardous Wastes From Specific and Non-Specific Sources)

1. *Methodology for Listing Hazardous Waste Streams.* Detailed justification

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for listing each hazardous waste in Subpart D is contained in specific background documents, and so will not be set forth in this preamble. The general methodology used to support listings will, however, briefly be described.

The listing documents are based on the listing criteria contained in § 261.11. The documents are organized in the following sequence: (1) A summary of the Administrator's basis for listing each identified waste stream; (2) a brief description of the industry (or industries) generating the listed waste stream; (3a) a description of the manufacturing process or other activity which generates the waste, (3b) identification of waste composition, constituent concentrations, and annual quantity generated,[1] and (3c) a description of waste management methods; (4) a discussion of the basis for listing each waste stream (described more fully below); and (5) a summary of the adverse health effects of each of the waste constituents of concern. The documents also contain appendices describing in more detail the adverse health effects of the waste constituents of concern, and (for certain documents) compiling available environmental fate and transport data (including data on waste constituent solubility, volatility, and environmental persistence) for each such waste constituent.

a. *Basis for Listing Toxic Wastes.* (1) Outline of Listing Discussion.

For hazardous wastes listed because they meet the criteria of toxicity, the discussion of the basis for listing identifies the waste constituents of concern, whether these constituents are present in significant concentrations, and the hazards associated with each waste constituent. The discussion then addresses whether these waste constituents, if the waste are managed improperly, could migrate from waste management sites, persist in the environment, and reach environmental receptors so as to cause substantial hazard. The analysis generally follows a physical continuum: whether waste constituents are inherently capable of migrating from the matrix of the waste in concentrations sufficient to cause substantial hazard, whether waste mismanagement could lead to environmental release of the migrating waste constituents, and whether waste constituents are mobile and persistent enough to reach environmental receptors and cause substantial hazard upon environmental release. In some cases, actual damage incidents involving the waste or waste constituents demonstrate empirically that waste constituents may migrate, persist, and cause substantial harm if mismanaged.[2]

A word as to the types of mismanagement situations considered. The Agency has limited its discussion to waste management situations which could plausibly occur with regard to the waste at issue. In the Agency's view, the hazard posed by a waste are not "substantial" (Section 1004(5)(B)) if hazards could arise only as a result of implausible types of waste mismanagement. Thus, the Agency would not examine possible hazards arising from improper waste incineration if the waste in question is not likely to be incinerated. On the other hand, the fact that a waste is properly managed by particular generators or particular classes of generators does *not* make the waste non-hazardous, as the statute requires that EPA determine whether a waste is hazardous if substantial hazard could result when wastes are "improperly treated, stored, transported, or disposed of, or otherwise managed." The potential of the waste to cause hazard is therefore the key factor. Consequently, if most or all generators of an otherwise hazardous waste dispose of the waste properly, for example in lined lagoons, the Agency may still consider hazards which could result from improper waste lagooning.[3]

(2) Relative Importance Attached to Identity of Waste Constituents and Constituents' Transport and Fate in Making Toxicity Listing Determinations.

It must be emphasized that in making listing determinations, the Agency's principal focus is on the identity of the waste's constituents, and on constituent concentrations in the waste and the nature of the toxicity presented by the constituents. Where a waste contains significant concentrations of hazardous waste constituents, the Agency is likely to list the waste as hazardous unless it is evident that the waste constituents are incapable of migrating in significant concentrations even if improperly managed, or that the waste constituents are not mobile or persistent should they migrate. This is particularly true where the waste constituents include suspect or proven carcinogens. As EPA recently stated, "(T)here is no scientific basis for estimating 'safe' levels of carcinogens. The draft criteria for carcinogens therefore state that the recommended concentration for maximum protection of human health is zero." (EPA *Water Quality Criteria*, 44 FR 15926, 15930 (March 15, 1979).) Thus, if suspect or known carcinogens are present, an additional cancer may result should the waste constituent migrate and reach a receptor in any concentration, certainly a sufficient risk to constitute a "substantial present or potential hazard" (Section 1004(5)(B)). In this situation, the Agency would require virtual assurance that waste constituents will not migrate and persist if improperly managed to justify a decision not to list the waste.

The Agency therefore does not seek to demonstrate that waste constituents will migrate and persist in sufficient concentrations to cause substantial hazard. Rather, fate and transport information is relevant to show that the potential for harm inherent in the waste (by virtue of its composition) will not eventuate. But, as stated, there must be a very strong likelihood that hazardous constituents are unable to migrate or persist to cause substantial harm before the Agency will decide not to list a waste.[4]

The Agency believes that this methodology is fully in accord with statutory requirements. Thus, this approach accords with the requirement of Section 3001(a) that environmental fate be considered in identifying wastes as hazardous. At the same time, the key focus is on the inherent potential of waste constituents to cause substantial harm, in accord with the definition of hazardous waste, which requires only that a waste "may pose a substantial present or *potential* hazard" to be hazardous. (Section 1004(5)(B), emphasis added.)

(3) Data Base for Toxicity Listing Determinations.

The Agency anticipates arguments that these toxicity listing determinations are made on the basis of inadequate data, and that listings be deferred until further information is gathered. EPA recognizes that these listing

[1] Waste composition and constituent concentrations have been determined either by actual analysis of waste samples, through literature searches, or on the basis of process engineering and process chemistry assumptions. When process assumptions are used to identify waste constituents and concentrations, the bases for the assumptions are contained in the document.

[2] Other factors identified in § 261.11(a)(3) are also considered when relevant, and when information is available. These factors include the quantities of waste managed, and actions of other governmental agencies or regulatory programs with regard to health or environmental hazards posed by the waste or by waste constituents.

[3] Indeed, in this hypothetical example, the fact that an industry takes special precautions in managing the waste suggests that the industry itself regards the waste as hazardous.

[4] § 261.11(a)(3) reflects that the waste's composition is the key factor in determining to list wastes as hazardous, since wastes containing enumerated constituents are to be listed unless consideration of particular additional factors demonstrates that the wastes do not meet the statutory hazardous waste definition.

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determinations are essentially qualitative judgments, generally involving expert assumptions based on available physical data rather than precise field determinations of waste composition or of how the wastes will act under identified conditions. However, the statute requires only that a qualitative judgment be made, namely that the wastes, if mismanaged, pose sufficient potentiality of hazard to warrant careful regulation. The Agency believes that it has compiled sufficient information on which to make this judgment. Nor would the delay necessary to compile in-depth (though quite likely cumulative or redundant) information on potentially hazardous wastes be sufferable in light of the urgent need for rapid implementation of the hazardous waste management program.[5] In any case, opportunity is afforded by means of a new comment period for affected parties to present additional information on the listed waste streams, and such comments are solicited.

b. Basis for Listing Ignitable, Corrosive, Reactive or EP Toxic Wastes

The basis for listing ignitable, corrosive, or reactive wastes is much simpler. These wastes, to be listed, must possess the appropriate characteristic, and the listing discussion is directed toward making this demonstration.

2. *Legal Authority to List Wastes Generically.* A number of commenters challenged the Agency's legal authority to list wastes generically. They stated that under Section 3001(b), the Administrator is to list "particular hazardous wastes," arguing that this language requires wastes to be listed individually, rather than as a generic class. These commenters also argued that the statute's legislative history supports their view, noting that the House report to RCRA states that "the Administrator shall promulgate regulations identifying and *specifically listing* those hazardous wastes subject to this title." H.R. Rep. at 56 (empasis added). The Agency disagrees with this interpretation. Although Congress clearly intended to distinguish the promulgation of hazardous waste characteristics from the listing of hazardous wastes, there is no clear indication that Congress further intended to limit the Administrator's discretion by precluding listing of classes of wastes. In the Agency's view, a class of wastes may be listed generically so long as most of the wastes in the class are typically or frequently hazardous, and so long as the listing description is sufficiently specific and particularized for individual generators to determine whether their wastes streams are included within the listing.

Thus, Section 3001(a), far from prohibiting listing of wastes by classes, simply distinguishes the use of criteria to idenfity hazardousness characteristics and to identify listed hazardous wastes.

> The Administrator shall * * * develop and promulgate criteria for identifying the characteristics of hazardous waste, and for listing hazardous waste * * *

Section 3001(b) carries forward this distinction:

> [T]he Administrator shall promulgate regulations identifying the characteristics of hazardous waste and listing particular hazardous wastes * * * Such regulations shall be based on the criteria promulgated under subsection (a) * * *.

To argue that Section 3001(b) was intended to bar any listing of wastes by class consequently reads far too much into the language of that provision. Indeed, Section 3001(a) does *not* refer to listing of particular wastes. This wording certainly militates against attaching too much importance to the reference to "particular wastes" in Section 3001(b).[6]

The legislative history likewise indicates that Congress' concern was that the identification of wastes through characteristics or through listing be regulatorily distinct mechanisms, and that the listing criteria not be confused with hazardous wastes themselves, *not* that generic listing be prohibited. The House report to RCRA thus refers to a "bifurcation of developing the criteria for what is a hazardous waste separate from the identification and listing of the hazardous wastes * * * " and cautions that "the critera for determining what should be considered hazardous should not be confused with an actual hazardous waste * * *" H.R. Rep. at 25.

Moreover, Congress itself, in the principal report to RCRA, used generic waste descriptions to identify hazardous wastes involved in damage incidents. Examples include identification of "electroplating wastes" (H.R. Rep. at 18), waste "petrochemicals" (*id.* at 18, 19), and "munitions waste" (*id.* at 20). This means of identification again suggests strongly that Congress envisioned generic identification as a means of bringing hazardous wastes into the Subtitle C management system.

Some commenters went on the argue that the statutory requirement to take factors such as toxicity, persistence, potential for bioaccumulation, quantity, and concentration into account in making listing determinations (see Sections 3001(a) and 1004(5); *see also* H.R. Rep. at 25) demonstrates Congresssional intent to prohibit generic listings because "(t)hese factors by their very nature are specific to particular hazardous waste rather than to generic categories." (Comments of Dow Chemical Co., October 10, 1979, p. 10). The Agency again disagrees. A class of wastes may exhibit sufficient uniformity of hazard to warrant listing on a class basis. (The Agency of course, must demonstrate that sufficient uniformity exists or is likely to exist). Furthermore, the commonters' argument, taken to its logical conclusion, would mean that the Agency could only list wastes on a generator by generator basis, since waste streams will vary to some degree with respect to these factors depending upon the precise composition of the individual waste (although the degree of difference ordinarily will not be of regulatory significance). Yet Congress clearly did not envision site-by-site listing.

The Agency therefore intends to list generically those wastes which demonstrate a reasonable likelihood of hazard as a class. The listing descriptions will be sufficiently specific to allow generators to determine if their wastes are covered, and, as discussed above, the listing of wastes will be distinct from their identification by means of hazardousness characteristics. This approach, we believe, is fully in accord with Congressional intent.

3. *Changes in Proposed Waste Listing Descriptions and Proposed Waste Lists.* Certain of the waste listing descriptions proposed in December, 1978 have been revised in the lists contained in §§ 261.31 and 261.32. These changes generally were made to clarify where in the process wastes are generated so as to enable generators to determine more easily if their wastes are listed. Since the coverage of these clarified listing descriptions remains identical with the

[5] *See, e.g., Report on Hazardous Waste Management and the Implementation of the Resource Conservation and Recovery Act,* Senate Subcommittee on Oversight of Government Management of the Senate Committee on Governmental Affairs, 96th Cong., 2d Sess. 7 (1980).

[6] In any case, the words "particular" and "specific" do not necessarily connote "individualized." For instance, the first definition of "specific" in Webster's *New Collegiate Dictionary* is "constituting or falling into a specifiable category." Similarly, the same source defines "particular" as "distinctive among others of the same general category." Thus, the statutory language, far from requiring individualized listing, requires that listing be done with sufficient particularity to distinguish listed and unlisted wastes.

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proposal, the revised descriptions are not being reproposed.

Certain other listed waste streams arise out of waste generation processes listed in the December proposal, but are newly identified. These waste streams are being proposed today, rather than issued in interim final form.

Finally, some of the waste streams initially proposed are not contained in the present list of wastes. The Agency's reasons for this action are discussed in Section III A.

B. Section 261.33 (Discarded Commercial Chemical Products, Off-Specification Species, Containers, and Spill Residues Thereof)

The proposed regulation contained three appendices listing a variety of materials which the Agency proposed to treat as hazardous waste if discarded. Appendix III listed selected cancelled pesticides or pesticides undergoing RPAR (Rebuttable presumption against registration) review within the Agency that were not listed elsewhere in the proposed regulation. Appendix IV listed selected substances regulated by the Department of Transportation (DOT) and classified as Poison A, Poison B, or ORM–A that were also not listed elsewhere. Appendix V listed substances which are being regulated as toxic priority pollutants under the Clean Water Act. In addition to the substances themselves, the regulation proposed to regulate (1) off-specification materials, which if they had met specifications, would have been shipped using the names of the substances listed in these appendices (2) containers, unless triple rinsed, containing the materials listed in the appendices, and (3) spill clean-up residues and debris from spills of materials listed in these appendices. Subsequently, in a supplemental proposed rule, EPA published another appendix (Appendix XII) listing thirty-three chemicals found to be human carcinogens or potential human carcinogens by the International Agency for Research on Cancer. 44 FR 49404 (August 22, 1979). In the proposed regulation, these materials were to be subject to the general exemption level of 100 kg/mo. Quantities of these materials below this level were not subject to full Subtitle C regulation.

In listing these materials in the proposed rule, EPA intended to encompass those chemical products which possessed toxic or other hazardous properties and which, for various reasons, are sometimes thrown away in pure or undiluted form. The reasons for discarding these materials might be that the materials did not meet required specifications, that inventories were being reduced, or that the product line had changed. The regulation was intended to designate chemicals themselves as hazardous wastes, if discarded, not to list all wastes which might contain these chemical constituents. In drawing up these lists, the Agency drew heavily upon previous work by EPA and other organizations identifying substances of particular concern.

On the basis of comments received and also EPA's own re-examination of the proposed rule, we have substantially revised this regulation. In the final regulations, commercial chemicals are treated in two separate provisions. First, substances listed in § 261.33(f) of the regulations are considered hazardous wastes if they or their off-specification species are thrown away in their pure form. These substances are regulated in the same manner as other hazardous wastes and are subject to the general exclusion level in § 261.5 (a) and (b) for the generation of small quantities of hazardous waste. Second, a number of the substances, which meet the criterion for listing acutely hazardous wastes, are separately listed in § 261.33(e). This section applies to the chemical substances if they or their off-specification species are thrown away in their pure form, containers and inner liners containing these materials, and spill residue and debris created by spills of these listed materials. Section 261.5(c) establishes low quantity exclusion levels for these acutely hazardous materials.

1. *Section 261.33(f) (Commercial Chemical Products).* A number of commenters stated that, as proposed, the materials listed in the various appendices were not tied to any of the criteria for listing, and, accordingly, the reasons for their listing were unclear. The Agency agrees that the basis for its proposed listings was not adequately specified. A table accompanying the background document on commercial chemical products sets forth the specific basis for including each substance on the list published today.

Commenters also expressed some uncertainty as to whether the proposed regulations made hazardous any waste that contained the listed substance as a constituent of the waste. The intent of the regulation was to encompass only those materials which were being thrown away in their pure form or as an off-specification species of the listed material, as well as the contaminated residues and debris from those materials. The final regulation has been redrafted to limit the application of this section to the commercial chemical product itself, its off-specification species and derived spill residues and debris.

Several commenters argued that the wholesale incorporation of lists developed by EPA or other Federal agencies for other regulatory purposes was not appropriate. In the proposal, EPA had, for example, listed all materials that DOT lists as ORM–A materials pursuant to its authority under the Hazardous Materials Transportation Act. A number of commenters argued that these substances should not be listed by EPA because DOT's basis for listing used different criteria—the potential for interfering with transportation. DOT's standard is very broad and somewhat vague; ORM–A material is one that bas "an anesthetic, irritating, noxious, toxic or similar property which can cause extreme annoyance of discomfort to passengers and are in the event of leakage during transportation." 49 CFR 173.500(a)(1).

EPA agrees with these comments and, rather than adopting lists of substances on a wholesale basis, has evaluated each against EPA's criteria for listing. Included in § 261.33(f) are those chemical substances which are toxic and which meet the listing criteria set forth in § 261.11(a)(3). These hazardous properties have been documented in EPA rulemaking, studies and other materials, including health effects documents prepared in support of these regulations materials supporting RPAR actions background documents supporting National Interim Primary Drinking Water Standards, materials produced by EPA's Cancer Assessment Group and, in the case of chlorofluorcarbons, documents supporting regulations under TSCA.

This approach has led to certain deletions from the lists of hazardous wastes contained in the proposed rules. A table accompanying the background document sets forth the disposition of all 295 chemicals originally listed in the proposed rules. Eight substances have been deleted from the list because they did not meet any of the criteria for listing hazardous wastes; sixteen were deleted because the listing description was not precise enough to enable generators to determine whether particular materials fell within that description. Examples of these deletions are "medicines N.O.S." and "motor fuel antiknock compound." In addition, thirty-one substances are not presently listed because EPA lacks data to assess the propriety of listing them on the basis of the listing. These substances are presently under review by the Agency to

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determine whether they should be included on the § 261.33(f) list.

This process has reduced the chemical products listed, to those substances which are demonstrated to pose a substantial threat to human health or the environment. These materials, their off-specification variants, and contaminated residues and debris from the spills of these materials are subject to full regulation under Subtitle C in the same manner as other hazardous wastes.

2. *Section 261.33(e) (Commercial Chemical Products).* In considering the hazards presented by commercial chemical products, EPA recognized that some substances in their pure form possessed extremely hazardous properties. To account for these substances, EPA has established a new criterion for listing which examines the potentially lethal capacity of chemical substances in very small quantities. The basis for this criterion is explained in section V.B. above.

Applying this criterion to the proposed lists of chemicals products has led the Agency to list 122 substances in § 261.33(e). As with the substances listed in § 261.33(f), the regulatory language has been clarified to restrict the application of this section to chemical products, or their off-specification species, and not to wastes which contain these materials as a constituents. Because of their acutely hazardous nature, however, containers and inner liners which contained these materials and spill cleanup debris and residues resulting from spill of these materials are also included.

At the suggestion of commenters, EPA also reviewed chemical substances on the TSCA inventory list for inclusion on the § 261.33(e) list. A number of those substances do meet the acutely hazardous criterion and accordingly have been added to the list. However, because all interested persons have not had an opportunity to comment on the listing of these materials, the Agency is promulgating them in interim final (together with the remainder of Subpart D).

The final regulations establish stringent quantity cutoff levels for materials listed in § 261.33(e). In the proposed regulation, all hazardous wastes in quantities generated or disposed of at rates greater than 100 kg/mo were subject to full Subtitle C regulation. Although the Agency recognized that many, if not all, of the proposed chemicals listed possessed acutely hazardous characteristics, it did not propose lesser limits for these substances because the general exclusion level—less than ½ of a 55 gallon drum—appeared sufficient to regulate most of the chemical products that would be thrown away. For the reasons discussed in section IV. E., above, the general exclusion level has been raised to 1000 kg/mo. This higher level undercuts the original rationale for proposing a single exclusion level for all hazardous wastes. Many commenters urged that EPA employ a degree of hazard system for determining exclusion levels, for allocating Agency resources and determining priorities, and for establishing management standards. Although EPA is unable to adopt a degree of hazard system, we agree with the commenters that considerations of hazard are appropriate in establishing quantity exclusion levels for those substances which posses acutely hazardous properties. The criterion used in listing these substances ensures that those materials that are listed in § 261.33(e) are those which are lethal in very small quantities.

Accordingly, the Agency has adopted very low exclusion levels for these chemical products and their off-specification variants, containers and inner liners which contained these materials, and spill residues and debris. The selection of these levels reflects the judgment of the Agency that, although even lesser quantities may be hazardous, the levels selected, on the basis of probable exposure scenarios, are sufficient to minimize the threat to human health and the environment while enabling the Agency to implement and enforce these regulations. The one kilogram level for the chemicals will, in the Agency's judgment, bring under full regulation virtually all of the substances being thrown away. The quantity limit for containers which have not been triple rinsed (20 liters) represents the Agency's judgment of probable exposure and consequential injury from the use of discarded containers. The Agency has records of damage incidents resulting from improperly disposed containers that occurred when people salvaged large containers for such uses as garbage containers and barbecue pits. The levels chosen for inner liners and spill residue and debris represent the same type of judgment based on probable exposure.

A number of commenters suggested that the proposed rule regarding containers be revised. The proposal had included within its scope all containers which had not been triple-rinsed. Some commenters argued that there were other effective ways of cleaning containers and therefore the rule was unduly restrictive. One commenter pointed out, for example, that the EPA registered label for certain pesticides requires different rinsing procedures from those specified in the proposed rule. EPA agrees with these comments and has revised the regulation to allow other cleaning methods provided they are equally effective.

The listing of spill residues and debris attracted several comments. One commenter suggested that small quantities of contaminated spill clean-up be excluded. EPA has, in the final regulation, excluded aggregate amounts of less than 100 kilograms. Another commenter felt that EPA should define the term "spill debris" more precisely to avoid including wrecked rail cars or trucks. EPA has chosen not to exclude such debris by definition. If contaminated, these items pose a substantial threat to human health and the environment and should be handled carefully. EPA presumes, however, that in virtually all cases, heavy equipment can be decontaminated and therefore will not become part of the contaminated debris.

C. Delisting

EPA's proposed regulations contained procedures allowing a person to show that a listed waste generated by an individual facility was not hazardous beause of plant-specific variations in raw materials, processes or other factors (§ 250.15). These demonstrations of non-hazardousness were to be based on the results of specific tests for each of the hazardous properties for which the waste was listed (§ 250.15(a)) and submitted and processed in accordance with procedures set forth in § 250.15(c) through (h) of the proposed regulations.

Although virtually all commenters supported the concept of a "delisting" process in principle, most were dissatisfied with the specifics of EPA's proposal. Many criticized the delisting standards as being too inflexible, too vague, and based on tests which EPA itself was unwilling to propose as characteristics or use as listing criteria; some specifically urged that other factors—including how a waste was managed at an individual facility—be considered in determining whether a waste should be delisted. Other commenters objected to the procedures themselves, urging EPA to provide trial-type hearings on delisting petitions, extensive procedural safeguards and multiple administrative appeals.

After re-examining its proposed regulation and considering public comments, EPA has concluded that its delisting procedures should be revised and simplified in four major respects.

First, EPA has concluded that the delisting of a waste from a particular

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facility is really a modification of its original listing determination and therefore should take the form of a regulatory amendment to the lists of wastes in Subpart D. The informational requirements for petitions to amend Subpart D to exclude wastes from a particular generating facility are set forth in §§ 260.20 and 260.22 of this Chapter. EPA will follow the Administrative Procedures Act's informal rulemaking procedures in acting on them (*see* § 260.20).

Some commenters argued that EPA's delisting regulations should provide for elaborate adjudicatory hearings with administrative law judges. EPA thinks such procedures would be unduly costly, burdensome and time-consuming and that the relevant issues can be adequately aired and decided in informal rulemaking procedures. EPA is on firm legal ground in this regard, for RCRA requires only informal rulemaking here. The Supreme Court has recently confirmed that an agency need not provide more formal procedures than are specifically required by statute (*Vermont Yankee* v. *NRDC*, 435 U.S. 519, 524 (1978)).

The second major change which EPA has made in its delisting procedures pertains to the effect of filing a petition. In its proposal, EPA stated that a requested exclusion would take effect 90 days after submission, but that the Administrator could revoke the effectiveness at any time thereafter simply by disapproving the demonstration (§ 250.15(d)). In the regulations promulgated today, no exclusion will be deemed effective until either (i) EPA has taken final action under § 260.20(e), or (ii) EPA has granted a temporary exclusion on the grounds of substantial likelihood of success under § 260.22(m).

EPA has concluded that it would be inappropriate to consider a delisting petition effective until EPA has taken some affirmative action in response. Once a listing has been established through rulemaking procedures it must be presumed valid, and those seeking to amend any portion of it should have the burden of establishing the correctness of their position. The proposed provision allowing a demonstration to become effective without EPA action improperly shifted the burden. At the same time, new § 260.22(m) will benefit generators because EPA will be able to grant temporary exclusions in appropriate cases before the rulemaking process is complete.

The third major change which EPA has made to its proposed delisting regulations is to key the standards for approving a delisting petition to the criteria which EPA used to list the waste in the first place. This approach not only is consistent with EPA's decision to treat delisting as a rulemaking, but also is responsive to commenters' criticisms that EPA's proposed delisting standards were unrelated to its listing criteria. Moreover, because the listing criteria have been substantially clarified and expanded (see section V.B.), it is also responsive to objections that those standards were vague, inflexible and failed to consider the multiple factors which might cause a waste to be hazardous.

Two points concerning the standards for granting a delisting petition are deserving of special comment. First, the fact that a waste is properly managed by an individual facility is not grounds for delisting it, any more than the fact that a waste is generally properly managed by industry is grounds for not listing it (see section VII.A.). Second, in the case of a waste which has been listed for acute toxicity, a generator will be required to show not only that the waste does not meet EPA's acute toxicity criterion but also that it does not meet its general toxicity criterion. Although an off-specification acutely toxic waste or a mixture containing an acutely toxic waste may no longer be deadly, it may still continue to pose a substantial hazard to human health and the environment.

The final major revision which EPA has made in its proposed regulations relates to the effect of successful delisting petition. Under the regulations published today, a decision to exclude a waste from the hazardous waste lists in Subpart D is not a decision that the waste is not hazardous. It simply relegates the waste to the same general category as any other unlisted waste—*i.e.*, if the waste exhibits one of the characteristics, it must be regulated as hazardous waste. This approach is necessitated by the fact that wastes from individual facilities may exhibit characteristics not exhibited by waste in general and that, in deciding to list a waste, EPA has not tested it against every one of the characteristics.

VIII. Environmental, Ecooomic and Regulatory Impacts

In accordance with Executive Order 11821, as amended by Executive Order 11949, and Executive Order 12044, EPA has prepared an Environmental Impact Analysis and a Regulatory Analysis of all of its Section 3001 through 3004 regulations. The Agency has also voluntarily prepared an Environmental Impact Statement for these regulations under the National Environmental Policy Act, 42 U.S.C. 4321 *et seq.*

Copies of these documents, and EPA's Reports Impact Analysis and Operations Resources Impact Analysis for Sections 3001 through 3004, may be reviewed in all EPA Regional Office Libraries, and at the EPA headquarters library, Room 2404, 401 M Street, S.W., Washington, D.C. 20460.

Appendix A—Scheduled June Promulgation

Generics

1. Paint residues generated from industrial painting
2. Wastewater treatment sludges from industrial painting [Comment: The above two listing descriptions have been changed from those originally proposed on December 18, 1978 (43 FR 58957) as: Paint wastes (such as used rags, slops latex sludge, spent solvent); Water-based paint waste; and Waste paint and varnish remover or stripper.]

Process Wastes

1. Woven fabric dying and finishing wastewater treatment sludges
2. Mercury bearing sludges from brine treatment and mercury bearing brine purification muds from the mercury cell process in chlorine production [Comment: This listing description includes two wastes which were originally proposed on December 18, 1978 (43 FR 58958) as: Mercury bearing sludges from brine purification muds from mercury cell process in chlorine production and mercury bearing brine purification muds from mercury cell process in chlorine production.]
3. Wastewater treatment sludge from the diaphragm cell process using graphite anodes in the production of chlorine [Comment: This listing description was originally proposed on December 18, 1978 (43 FR 58958) as: Wastewater treatment sludge from diaphragm cell process in production of chlorine.]
4. Chlorinated hydrocarbon bearing wastes from the diaphragm cell process using graphite anodes in chlorine production [Comment: This listing description was originally proposed on December 18, 1978 (43 FR 58958) as: Chlorinated hydrocarbon wastes from diaphragm cell process in chlorine production.]
5. Wastewater treatment sludges from the production of TiO_2 pigment using chromium bearing ores by the chloride process [Comment: This listing description was originally proposed on December 18, 1978 (43 FR 58958) as: Chromium bearing wastewater treatment sludges from the production of TiO_2 pigment by the chloride process.]

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6. Wastewater treatment sludges from the production of TiO_2 pigment using chromium bearing ores by the sulfate process [Comment: This listing description was originally proposed on December 18, 1978 (43 FR 58958) as: Chromium bearing wastewater treatment sludges from the production of TiO_2 pigment by the sulfate process.]
7. Arsenic bearing sludges from the purification process in the production of antimony oxide
8. Antimony bearing wastewater treatment sludge from the production of antimony oxide
9. Solvent cleaning wastes from paint manufacturing
10. Water cleaning wastes from paint manufacturing
11. Caustic cleaning wastes from paint manufacturing
12. Wastewater treatment sludges from paint manufacturing
13. Air pollution control sludges from paint manufacturing [Comment: The above five listing descriptions have been changed from those originally proposed on December 18, 1978 (43 FR 58958) as: Wastewater treatment sludges from paint production and Air pollution control sludges from paint production.]
14. Still bottoms from aniline production
15. Sludges, wastes from tub washers (Ink Formulation)
16. Coking: Decanter tank tar/pitch/sludge [Comment: This listing description includes two wastes which were originally proposed on December 18, 1978 (43 FR 58959) as: Coking: Decanter tank tar and Coking: Decanter tank pitch sludge.]
17. Spend potliners (cathodes) from primary aluminum production
18. Lead bearing wastewater treatment sludges from gray iron foundries
19. Arsenic or organo-arsenic containing wastewater treatment sludges from the production of veterinary pharmaceuticals
20. Distillation residue from the separation of chlorobenzenes in the production of chlorobenzenes [Comment: This listing description was originally proposed on December 18, 1978 (43 FR 58958) as: Distillation residues from fractionating tower for recovery of benzene and chlorobenzenes.]
21. Emission control dust/sludge from ferrochromium-silicon production [Comment: This listing description was originally proposed on December 18, 1978 (43 FR 58959) as: Ferrochromesilicon furnace emission control dust or sludge.]
22. Emission control dust/sludge from ferrochrome production [Comment: This listing description was originally proposed on December 18, 1978 (43 FR 58959) as: Ferrochrome emissions control: furnace baghouse dust, and ESP dust.]
23. Emission control dust/sludge from ferromanganese production [Comment: This listing description was originally proposed on December 18, 1978 (43 FR 58959) as: Ferromanganese emission control: baghouse dusts and scrub water solids.]

Appendix B*—Scheduled Fall Promulgation

Generic

1. Reactor clean-up wastes from the chlorination, dehydrochlorination, or oxychlorination of aliphatic hydrocarbons
2. Fractionation bottoms from the separation of chlorination hydrocarbons
3. Distillation bottoms from the separation of chlorinated aliphatic hydrocarbons
4. Washer wastes from the production of chlorinated aliphatic hydrocarbons
5. Spent catalyst from the production of chlorinated aliphatic hydrocarbons
6. Reactor clean-up wastes from the chlorination of cyclic aliphatic hydrocarbons
7. Fractionation bottoms from the separation of chlorinated cyclic aliphatic hydrocarbons
8. Distillation bottoms from the separation of chlorinated cyclic aliphatic hydrocarbons
9. Washer wastes from the production of chlorinated cyclic aliphatic hydrocarbons
10. Spent catalyst from the production of chlorinated cyclic aliphatic hydrocarbons
11. Batch residues from the batch production of chlorinated polymers
12. Solution residues from the production of chlorinated polymers
13. Reactor clean-up wastes from the chlorination of aromatic hydrocarbons
14. Fractionation bottoms from the separation of chlorinated aromatic hydrocarbons
15. Distillation bottoms from the separation of chlorinated aromatic hydrocarbons
16. Washer wastes from the production of chlorinated aromatic hydrocarbons
17. Waste Oil [Comment: This listing description was originally proposed on December 18, 1978 (43 FR 58957) as: Waste lubricating oil and Waste hydraulic or cutting oil.]
18. Polychlorinated biphenyls (PCB) and PCB items as defined in 40 CFR Part 761 [Comment: The Agency indicated in the preamble to the Section 3004 regulations (43 FR 58993), their intention to integrate the TSCA regulations for the disposal of PCB's with the RCRA hazardous waste regulations.]

Process Wastes

1. Sub-ore from underground and surface mining of uranium, overburden from surface mining of uranium and waste rock from underground mining of uranium with a radium-226 activity in excess of 5pCi/gm [Comment: This listing description was originally proposed on December 18, 1978 (43 FR 58958) as: Waste rock and overburden from uranium mining.]
2. Leach zone overburden and discarded phosphate ore from phosphate surface mining and slimes from phosphate ore beneficiation [Comment: This listing description was originally proposed on December 18, 1978 (43 FR 58958) as: Overburden and slimes from phosphate surface mining.]
3. Waste gypsum from processing phosphate ore to produce phosphoric acid [Comment: This listing description was originally proposed on December 18, 1978 (43 FR 58958) as: Waste gypsum from phosphoric acid production.]
4. Slag and fluid bed prills from processing phosphate ore to produce elemental phosphorous [Comment: This listing description was originally proposed on December 18, 1978 (43 FR 58958) as: Slag and fluid bed prills from elemental phosphorous production.]
5. Washwater/sludges from ink printing equipment clean-up [Comment: This listing description includes three wastes which were originally proposed on August 22, 1979 (44 FR 49403 and 49404) as: Waste from equipment cleaning from flexoprinting in the manufacture of paperboard boxes; Waste from press clean-up in newspaper printing and Wash water from printing ink equipment cleaning.]
6. Wastes from photographic processing [Comment: This listing was originally proposed on August 22, 1979 (44 FR 49404) as: Waste Ferricyanide bleach, dichromate bleach, color developer (Agfa), bleach fix (Agfa) and acid solution from photographic processing.]
7. Lead acid storage battery production wastewater treatment sludges
8. Lead acid storage battery production clean-up wastes from cathode and anode paste production

*Since these wastes will not be promulgated until the fall, the listing descriptions for some of these wastes may change as additional information is gathered.

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9. Nickel cadmium battery production wastewater treatment sludges
10. Lead slag from lead alkyl production
11. Emission control dust/sludge from reverberatory furnace and converters from primary copper production [Comment: This listing description was included in the listing description originally proposed on December 18, 1978 (43 FR 58959) as: Primary copper smelting and refining electric furnace slag, converter dust, acid plant sludge and reverberatory dust.]

Dated: May 2, 1980.

Douglas M. Costle,

Administrator.

Title 40 of the Code of Federal Regulations is amended by adding the following new Part 261:

PART 261—IDENTIFICATION AND LISTING OF HAZARDOUS WASTE

Subpart A—General

Sec.
261.1 Purpose and scope.
261.2 Definition of solid waste.
261.3 Definition of hazardous waste.
261.4 Exclusions.
261.5 Special requirements for hazardous waste produced by small quantity generators.
261.6 Special requirements for hazardous waste which is used, re-used, recycled or reclaimed.

Subpart B—Criteria for Identifying the Characteristics of Hazardous Waste and for Listing Hazardous Wastes

261.10 Criteria for identifying the characteristics of hazardous wastes.
261.11 Criteria for listing hazardous waste.

Subpart C—Characteristics of Hazardous Waste

261.20 General.
261.21 Characteristic of ignitability.
261.22 Characteristic of corrosivity.
261.23 Characteristic of reactivity.
261.24 Characteristic of EP toxicity.

Subpart D—Lists of Hazardous Wastes

261.30 General.
261.31 Hazardous wastes from non-specific sources.
261.32 Hazardous wastes from specific sources.
261.33 Discarded commercial chemical products and associated off-specification materials, containers and spill residues.

Appendices

Appendix I—Representative Sampling Methods
Appendix II—EP Toxicity Test Procedures
Appendix III—Chemical Analysis Test Methods
Appendix IV—[Reserved for Radioactive Waste Test Methods]
Appendix V—[Reserved for Infectious Waste Treatment Specifications]
Appendix VI—[Reserved for Etiologic Agents]
Appendix VII—Basis for Listing
Appendix VIII—Hazardous Constituents

Authority: Secs. 1006, 2002(a), 3001, and 3002 of the Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act of 1976, as amended (42 U.S.C. 6905, 6912, 6921 and 6922).

Subpart A—General

§ 261.1 Purpose and scope.

(a) This Part identifies those solid wastes which are subject to regulation as hazardous wastes under Parts 262 through 265 and Parts 122 through 124 of this Chapter and which are subject to the notification requirements of Section 3010 of RCRA. In this Part:

(1) Subpart A defines the terms "solid waste" and "hazardous waste," identifies those wastes which are excluded from regulation under Parts 262 through 265 and 122 through 124 and establishes special management requirements for hazardous waste produced by small quantity generators and hazardous waste which is used, re-used, recycled or reclaimed.

(2) Subpart B sets forth the criteria used by EPA to identify characteristics of hazardous waste and to list particular hazardous wastes.

(3) Subpart C identifies characteristics of hazardous waste.

(4) Subpart D lists particular hazardous wastes.

(b) This Part identifies only some of the materials which are hazardous wastes under Sections 3007 and 7003 of RCRA. A material which is not a hazardous waste identified in this part is still a hazardous waste for purposes of those sections if:

(1) In the case of Section 3007, EPA has reason to believe that the material may be a hazardous waste within the meaning of Section 1004(5) of RCRA.

(2) In the case of Section 7003, the statutory elements are established.

§ 261.2 Definition of solid waste.

(a) A solid waste is any garbage, refuse, sludge or any other waste material which is not excluded under § 261.4(a).

(b) An "other waste material" is any solid, liquid, semi-solid or contained gaseous material, resulting from industrial, commercial, mining or agricultural operations, or from community activities which:

(1) Is discarded or is being accumulated, stored or physically, chemically or biologically treated prior to being discarded; or

(2) Has served its original intended use and sometimes is discarded; or

(3) Is a manufacuring or mining by-product and sometimes is discarded.

(c) A material is "discarded" if it is abandoned (and not used, re-used, reclaimed or recycled) by being:

(1) Disposed of; or

(2) Burned or incinerated, except where the material is being burned as a fuel for the purpose of recovering usable energy; or

(3) Physically, chemically, or biologically treated (other than burned or incinerated) in lieu of or prior to being disposed of.

(d) A material is "disposed of" if it is discharged, deposited, injected, dumped, spilled, leaked or placed into or on any land or water so that such material or any constituent thereof may enter the environment or be emitted into the air or discharged into ground or surface waters.

(e) A "manufacturing or mining by-product" is a material that is not one of the primary products of a particular manufacturing or mining operation, is a secondary and incidental product of the particular operation and would not be solely and separately manufactured or mined by the particular manufacturing or mining operation. The term does not include an intermediate manufacturing or mining product which results from one of the steps in a manufacturing or mining process and is typically processed through the next step of the process within a short time.

§ 261.3 Definition of hazardous waste.

(a) A solid waste, as defined in § 261.2, is a hazardous waste if:

(1) It is not excluded from regulation as a hazardous waste under § 261.4(b); and

(2) It meets any of the following criteria:

(i) It is listed in Subpart D and has not been excluded from the lists in Subpart D under §§ 260.20 and 260.22 of this Chapter.

(ii) It is a mixture of solid waste and one or more hazardous wastes listed in Subpart D and has not been excluded from this paragraph under §§ 260.20 and 260.22 of this Chapter.

(iii) It exhibits any of the characteristics of hazardous waste identified in Subpart C.

(b) A solid waste which is not excluded from regulation under paragraph (a)(1) of this section becomes a hazardous waste when any of the following events occur:

(1) In the case of a waste listed in Subpart D, when the waste first meets the listing description set forth in Subpart D.

(2) In the case of a mixture of solid waste and one or more listed hazardous wastes, when a hazardous waste listed

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in Subpart D is first added to the solid waste.

(3) In the case of any other waste (including a waste mixture), when the waste exhibits any of the characteristics identified in Subpart C.

(c) Unless and until it meets the criteria of paragraph (d):

(1) A hazardous waste will remain a hazardous waste.

(2) Any solid waste generated from the treatment, storage or disposal of a hazardous waste, including any sludge, spill residue, ash, emission control dust or leachate (but not including precipitation run-off), is a hazardous waste.

(d) Any solid waste described in paragraph (c) of this section is not a hazardous waste if it meets the following criteria:

(1) In the case of any solid waste, it does not exhibit any of the characteristics of hazardous waste identified in Subpart C.

(2) In the case of a waste which is a listed waste under Subpart D, contains a waste listed under Subpart D or is derived from a waste listed in Subpart D, it also has been excluded from paragraph (c) under §§ 260.20 and 260.22 of this Chapter.

§ 261.4 Exclusions.

(a) *Materials which are not solid wastes.* The following materials are not solid wastes for the purpose of this Part:

(1) (i) Domestic sewage; and

(ii) Any mixture of domestic sewage and other wastes that passes through a sewer system to a publicly-owned treatment works for treatment. "Domestic sewage" means untreated sanitary wastes that pass through a sewer system.

(2) Industrial wastewater discharges that are point source discharges subject to regulation under Section 402 of the Clean Water Act, as amended.

[Comment: This exclusion applies only to the actual point source discharge. It does not exclude industrial wastewaters while they are being collected, stored or treated before discharge, nor does it exclude sludges that are generated by industrial wastewater treatment.]

(3) Irrigation return flows.

(4) Source, special nuclear or by-product material as defined by the Atomic Energy Act of 1954, as amended, 42 U.S.C. 2011 *et seq.*

(5) Materials subjected to in-situ mining techniques which are not removed from the ground as part of the extraction process.

(b) *Solid wastes which are not hazardous wastes.* The following solid wastes are not hazardous wastes:

(1) Household waste, including household waste that has been collected, transported, stored, treated, disposed, recovered (e.g., refuse-derived fuel) or reused. "Household waste" means any waste material (including garbage, trash and sanitary wastes in septic tanks) derived from households (including single and multiple residences, hotels and motels.)

(2) Solid wastes generated by any of the following and which are returned to the soils as fertilizers:

(i) The growing and harvesting of agricultural crops.

(ii) The raising of animals, including animal manures.

(3) Mining overburden returned to the mine site.

(4) Fly ash waste, bottom ash waste, slag waste, and flue gas emission control waste generated primarily from the combustion of coal or other fossil fuels.

(5) Drilling fluids, produced waters, and other wastes associated with the exploration, development, or production of crude oil, natural gas or geothermal energy.

§ 261.5 Special requirements for hazardous waste generated by small quantity generators.

(a) Except as otherwise provided in this section, if a person generates, in a calendar month, a total of less than 1000 kilograms of hazardous wastes, those wastes are not subject to regulation under Parts 262 through 265 and Parts 122 through 124 of this Chapter, and the notification requirements of Section 3010 of RCRA.

(b) If a person whose waste has been excluded from regulation under paragraph (a) of this Section accumulates hazardous wastes in quantities greater than 1000 kilograms, those accumulated wastes are subject to regulation under Parts 262 through 265 and Parts 122 through 124 of this Chapter, and the notification requirements of Section 3010 of RCRA.

(c) If a person generates in a calendar month or accumulates at any time any of the following hazardous wastes in quantities greater than set forth below, those wastes are subject to regulation under Parts 262 through 265 and Parts 122 through 124 of this Chapter, and the notification requirements of Section 3010 of RCRA:

(1) One kilogram of any commercial product or manufacturing chemical intermediate having the generic name listed in § 261.33(e).

(2) One kilogram of any off-specification commercial chemical product or manufacturing chemical intermediate which, if it met specifications, would have the generic name listed in § 261.33(e).

(3) Any containers identified in § 261.33(c) that are larger than 20 liters in capacity;

(4) 10 kilograms of inner liners from containers identified under § 261.33(c);

(5) 100 kilograms of any residue or contaminated soil, water or other debris resulting from the cleanup of a spill, into or on any land or water, of any commercial chemical product or manufacturing chemical intermediate having the generic name listed in § 261.33(e).

(d) In order for hazardous waste to be excluded from regulation under this section, the generator must comply with § 262.11 of this Chapter. He must also either treat or dispose of the waste in an on-site facility, or ensure delivery to an off-site treatment, storage or disposal facility, either of which is:

(1) Permitted by EPA under Part 122 of this Chapter, or by a State with a hazardous waste management program authorized under Part 123 of this Chapter;

(2) In interim status under Parts 122 and 265 of this Chapter; or,

(3) Permitted, licensed, or registered by a State to manage municipal or industrial solid waste.

(e) Hazardous waste subject to the reduced requirements of this section may be mixed with non-hazardous waste and remain subject to these reduced requirements even though the resultant mixture exceeds the quantity limitations identified in this section, unless the mixture meets any of the characteristics of hazardous waste identified in Subpart C.

§ 261.6 Special requirements for hazardous waste which is used, re-used, recycled or reclaimed.

(a) Except as otherwise provided in paragraph (b) of this section, a hazardous waste which meets either of the following criteria is not subject to regulation under Parts 262 through 265 or Parts 122 through 124 of this Chapter and is not subject to the notification requirements of Section 3010 of RCRA until such time as the Administrator promulgates regulations to the contrary:

(1) It is being beneficially used or re-used or legitimately recycled or reclaimed.

(2) It is being accumulated, stored or physically, chemically or biologically treated prior to beneficial use or re-use or legitimate recycling or reclamation.

(b) A hazardous waste which is a sludge, or which is listed in Subpart D, or which contains one or more hazardous wastes listed in Subpart D; and which is transported or stored prior

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to being used, re-used, recycled or reclaimed is subject to the following requirements with respect to such transportation or storage:

(1) Notification requirements under Section 3010 RCRA.

(2) Part 262 of this Chapter.

(3) Part 263 of this Chapter.

(4) Subparts A, B, C, D and E of Part 264 of this Chapter.

(5) Subparts A, B, C, D, E, G, H, I, J and L of Part 265 of this Chapter.

(6) Parts 122 and 124 of this Chapter, with respect to storage facilities.

Subpart B—Criteria for Identifying the Characteristics of Hazardous Waste and for Listing Hazardous Waste

§ 261.10 Criteria for identifying the characteristics of hazardous waste.

(a) The Administrator shall identify and define a characteristic of hazardous waste in Subpart C only upon determining that:

(1) A solid waste that exhibits the characteristic may:

(i) Cause, or significantly contribute to, an increase in mortality or an increase in serious irreversible, or incapacitating reversible, illness; or

(ii) Pose a substantial present or potential hazard to human health or the environment when it is improperly treated, stored, transported, disposed of or otherwise managed; and

(2) The characteristic can be:

(i) Measured by an available standardized test method which is reasonably within the capability of generators of solid waste or private sector laboratories that are available to serve generators of solid waste; or

(ii) Reasonably detected by generators of solid waste through their knowledge of their waste.

§ 261.11 Criteria for listing hazardous waste.

(a) The Administrator shall list a solid waste as a hazardous waste only upon determining that the solid waste meets one of the following criteria:

(1) It exhibits any of the characteristics of hazardous waste identified in Subpart C.

(2) It has been found to be fatal to humans in low doses or, in the absence of data on human toxicity, it has been shown in studies to have an oral LD 50 toxicity (rat) of less than 50 milligrams per kilogram, an inhalation LC 50 toxicity (rat) of less than 2 milligrams per liter, or a dermal LD 50 toxicity (rabbit) of less than 200 milligrams per kilogram or is otherwise capable of causing or significantly contributing to an increase in serious irreversible, or incapacitating reversible, illness. (Waste listed in accordance with these criteria will be designated Acute Hazardous Waste.)

(3) It contains any of the toxic constituents listed in Appendix VIII unless, after considering any of the following factors, the Administrator concludes that the waste is not capable of posing a substantial present or potential hazard to human health or the environment when improperly treated, stored, transported or disposed of, or otherwise managed:

(i) The nature of the toxicity presented by the constituent.

(ii) The concentration of the constituent in the waste.

(iii) The potential of the constituent or any toxic degradation product of the constituent to migrate from the waste into the environment under the types of improper management considered in paragraph (a)(3)(vii) of this section.

(iv) The persistence of the constituent or any toxic degradation product of the constituent.

(v) The potential for the constituent or any toxic degradation product of the constituent to degrade into non-harmful constituents and the rate of degradation.

(vi) The degree to which the constituent or any degradation product of the constituent bioaccumulates in ecosystems.

(vii) The plausible types of improper management to which the waste could be subjected.

(viii) The quantities of the waste generated at individual generation sites or on a regional or national basis.

(ix) The nature and severity of the human health and environmental damage that has occurred as a result of the improper management of wastes containing the constituent.

(x) Action taken by other governmental agencies or regulatory programs based on the health or environmental hazard posed by the waste or waste constituent.

(xi) Such other factors as may be appropriate.

Substances will be listed on Appendix VIII only if they have been shown in scientific studies to have toxic, carcinogenic, mutagenic or teratogenic effects on humans or other life forms.

(Wastes listed in accordance with these criteria will be designated Toxic wastes.)

(b) The Administrator may list classes or types of solid waste as hazardous waste if he has reason to believe that individual wastes, within the class or type of waste, typically or frequently are hazardous under the definition of hazardous waste found in Section 1004(5) of the Act.

(c) The Administrator will use the criteria for listing specified in this section to establish the exclusion limits referred to in § 261.5(c).

Subpart C—Characteristics of Hazardous Waste

§ 261.20 General.

(a) A solid waste, as defined in § 261.2, which is not excluded from regulation as a hazardous waste under § 261.4(b), is a hazardous waste if it exhibits any of the characteristics identified in this Subpart.

[Comment: § 262.11 of this Chapter sets forth the generator's responsibility to determine whether his waste exhibits one or more of the characteristics identified in this Subpart]

(b) A hazardous waste which is identified by a characteristic in this subpart, but is not listed as a hazardous waste in Subpart D, is assigned the EPA Hazardous Waste Number set forth in the respective characteristic in this Subpart. This number must be used in complying with the notification requirements of Section 3010 of the Act and certain recordkeeping and reporting requirements under Parts 262 through 265 and Part 122 of this Chapter.

(c) For purposes of this Subpart, the Administrator will consider a sample obtained using any of the applicable sampling methods specified in Appendix I to be a representative sample within the meaning of Part 260 of this Chapter.

[Comment: Since the Appendix I sampling methods are not being formally adopted by the Administrator, a person who desires to employ an alternative sampling method is not required to demonstrate the equivalency of his method under the procedures set forth in §§ 260.20 and 260.21.]

§ 261.21 Characteristic of ignitability.

(a) A solid waste exhibits the characteristic of ignitability if a representative sample of the waste has any of the following properties:

(1) It is a liquid, other than an aqueous solution containing less than 24 percent alcohol by volume, and has a flash point less than 60°C (140°F), as determined by a Pensky-Martens Closed Cup Tester, using the test method specified in ASTM Standard D–93–79, or a Setaflash Closed Cup Tester, using the test method specified in ASTM standard D–3278–78, or as determined by an equivalent test method approved by the Administrator under the procedures set forth in §§ 260.20 and 260.21.[1]

[1] ASTM Standards are available from ASTM, 1916 Race Street, Philadelphia, PA 19103.

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(2) It is not a liquid and is capable, under standard temperature and pressure, of causing fire through friction, absorption of moisture or spontaneous chemical changes and, when ignited, burns so vigorously and persistently that is creates a hazard.

(3) It is an ignitable compressed gas as defined in 49 CFR 173.300 and as determined by the test methods described in that regulation or equivalent test methods approved by the Administrator under §§ 260.20 and 260.21.

(4) It is an oxidizer as defined in 49 CFR 173.151.

(b) A solid waste that exhibits the characteristic of ignitability, but is not listed as a hazardous waste in Subpart D, has the EPA Hazardous Waste Number of D001.

§ 261.22 Characteristic of corrosivity.

(a) A solid waste exhibits the characteristic of corrosivity if a representative sample of the waste has either of the following properties:

(1) It is aqueous and has a pH less than or equal to 2 or greater than or equal to 12.5, as determined by a pH meter using either the test method specified in the "Test Methods for the Evaluation of Solid Waste, Physical/Chemical Methods" [2] (also described in "Methods for Analysis of Water and Wastes" EPA 600/4-79-020, March 1979), or an equivalent test method approved by the Administrator under the procedures set forth in §§ 260.20 and 260.21.

(2) It is a liquid and corrodes steel (SAE 1020) at a rate greater than 6.35 mm (0.250 inch) per year at a test temperature of 55°C (130°F) as determined by the test method specified in NACE (National Association of Corrosion Engineers) Standard TM-01-69 [3] as standardized in "Test Methods for the Evaluation of Solid Waste, Physical/Chemical Methods," or an equivalent test method approved by the Administrator under the procedures set forth in §§ 260.20 and 260.21.

(b) A solid waste that exhibits the characteristic of corrosivity, but is not listed as a hazardous waste in Subpart D, has the EPA Hazardous Waste Number of D002.

[2] This document is available from Solid Waste Information, U.S. Environmental Protection Agency, 26 W. St. Clair Street, Cincinnati, Ohio 45268.

[3] The NACE Standard is available from the National Association of Corrosion Engineers, P.O. Box 986, Katy, Texas 77450.

§ 261.23 Characteristic of reactivity.

(a) A solid waste exhibits the characteristic of reactivity if a representative sample of the waste has *any* of the following properties:

(1) It is normally unstable and readily undergoes violent change without detonating.

(2) It reacts violently with water.

(3) It forms potentially explosive mixtures with water.

(4) When mixed with water, it generates toxic gases, vapors or fumes in a quantity sufficient to present a danger to human health or the environment.

(5) It is a cyanide or sulfide bearing waste which, when exposed to pH conditions between 2 and 12.5, can generate toxic gases, vapors or fumes in a quantity sufficient to present a danger to human health or the environment.

(6) It is capable of detonation or explosive reaction if it is subjected to a strong initiating source or if heated under confinement.

(7) It is readily capable of detonation or explosive decomposition or reaction at standard temperature and pressure.

(8) It is a forbidden explosive as defined in 49 CFR 173.51, or a Class A explosive as defined in 49 CFR 173.53 or a Class B explosive as defined in 49 CFR 173.88.

(b) A solid waste that exhibits the characteristic of reactivity, but is not listed as a hazardous waste in Subpart D, has the EPA Hazardous Waste Number of D003.

§ 261.24 Characteristic of EP Toxicity.

(a) A solid waste exhibits the characteristic of EP toxicity if, using the test methods described in Appendix II or equivalent methods approved by the Administrator under the procedures set forth in §§ 260.20 and 260.21, the extract from a representative sample of the waste contains any of the contaminants listed in Table I at a concentration equal to or greater than the respective value given in that Table. Where the waste contains less than 0.5 percent filterable solids, the waste itself, after filtering, is considered to be the extract for the purposes of this section.

(b) A solid waste that exhibits the characteristic of EP toxicity, but is not listed as a hazardous waste in Subpart D, has the EPA Hazardous Waste Number specified in Table I which corresponds to the toxic contaminant causing it to be hazardous.

Table I.—Maximum Concentration of Contaminants for Characteristic of EP Toxicity—Continued

EPA hazardous waste number	Contaminant	Maximum concentration (milligrams per liter)
D004	Arsenic	5.0
D005	Barium	100.0
D006	Cadmium	1.0
D007	Chromium	5.0
D008	Lead	5.0
D009	Mercury	0.2
D010	Selenium	1.0
D011	Silver	5.0
D012	Endrin (1,2,3,4,10,10-hexachloro-1,7-epoxy-1,4,4a,5,6,7,8,8a-octahydro-1,4-endo, endo-5,8-dimethano naphthalene.	0.02
D013	Lindane (1,2,3,4,5,6-hexachlorocyclohexane, gamma isomer.	0.4
D014	Methoxychlor (1,1,1-Trichloro-2,2-bis (p-methoxyphenyl)ethane).	10.0
D015	Toxaphene ($C_{10}H_{10}Cl_8$, Technical chlorinated camphene, 67-69 percent chlorine).	0.5
D016	2,4-D, (2,4-Dichlorophenoxyacetic acid).	10.0
D017	2,4,5-TP Silvex (2,4,5-Trichlorophenoxypropionic acid).	1.0

Subpart D—Lists of Hazardous Wastes

§ 261.30 General.

(a) A solid waste is a hazardous waste if it is listed in this Subpart, unless it has been excluded from this list under §§ 260.20 and 260.22.

(b) The Administrator will indicate his basis for listing the classes or types of wastes listed in this Subpart by employing one or more of the following Hazard Codes:

Ignitable Waste	(I)
Corrosive Waste	(C)
Reactive Waste	(R)
EP Toxic Waste	(E)
Acute Hazardous Waste	(H)
Toxic Waste	(T)

Appendix VII identifies the constituent which caused the Administrator to list the waste as an EP Toxic Waste (E) or Toxic Waste (T) in §§ 261.31 and 261.32.

(c) Each hazardous waste listed in this Subpart is assigned an EPA Hazardous Waste Number which precedes the name of the waste. This number must be used in complying with the notification requirements of Section 3010 of the Act and certain recordkeeping and reporting requirements under Parts 262 through 205 and Part 122 of this Chapter.

(d) Certain of the hazardous wastes listed in § 261.31 or § 261.32 have exclusion limits that refer to § 261.5(c)(5).

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§ 261.31 Hazardous waste from nonspecific sources.

Industry and EPA hazardous waste No.	Hazardous waste	Hazard code
Generic:		
F001	The spent halogenated solvents used in degreasing, tetrachloroethylene, trichloroethylene, methylene chloride, 1,1,1-trichloroethane, carbon tetrachloride, and the chlorinated fluorocarbons; and sludges from the recovery of these solvents in degreasing operations.	(T)
F002	The spent halogenated solvents, tetrachloroethylene, methylene chloride, trichloroethylene, 1,1,1-trichloroethane, chlorobenzene, 1,1,2-trichloro-1,2,2-trifluoroethane, o-dichlorobenzene, trichlorofluoromethane and the still bottoms from the recovery of these solvents.	(T)
F003	The spent non-halogenated solvents, xylene, acetone, ethyl acetate, ethyl benzene, ethyl ether, n-butyl alcohol, cyclohexanone, and the still bottoms from the recovery of these solvents.	(I)
F004	The spent non-halogenated solvents, cresols and cresylic acid, nitrobenzene, and the still bottoms from the recovery of these solvents	(T)
F005	The spent non-halogenated solvents, methanol, toluene, methyl ethyl ketone, methyl isobutyl ketone, carbon disulfide, isobutanol, pyridine and the still bottoms from the recovery of these solvents.	(I, T)
F006	Wastewater treatment sludges from electroplating operations	(T)
F007	Spent plating bath solutions from electroplating operations	(R, T)
F008	Plating bath sludges from the bottom of plating baths from electroplating operations	(R, T)
F009	Spent stripping and cleaning bath solutions from electroplating operations	(R, T)
F010	Quenching bath sludge from oil baths from metal heat treating operations	(R, T)
F011	Spent solutions from salt bath pot cleaning from metal heat treating operations	(R, T)
F012	Quenching wastewater treatment sludges from metal heat treating operations	(T)
F013	Flotation tailings from selective flotation from mineral metals recovery operations	(T)
F014	Cyanidation wastewater treatment tailing pond sediment from mineral metals recovery operations	(T)
F015	Spent cyanide bath solutions from mineral metals recovery operations	(R, T)
F016	Dewatered air pollution control scrubber sludges from coke ovens and blast furnaces	(T)

§ 261.32 Hazardous waste from specific sources.

Industry and EPA hazardous waste No.	Hazardous waste	Hazard code
Wood Preservation: K001	Bottom sediment sludge from the treatment of wastewaters from wood preserving processes that use creosote and/or pentachlorophenol	(T)
Inorganic Pigments:		
K002	Wastewater treatment sludge from the production of chrome yellow and orange pigments	(T)
K003	Wastewater treatment sludge from the production of molybdate orange pigments	(T)
K004	Wastewater treatment sludge from the production of zinc yellow pigments	(T)
K005	Wastewater treatment sludge from the production of chrome green pigments	(T)
K006	Wastewater treatment sludge from the production of chrome oxide green pigments (anhydrous and hydrated)	(T)
K007	Wastewater treatment sludge from the production of iron blue pigments	(T)
K008	Oven residue from the production of chrome oxide green pigments	(T)
Organic Chemicals:		
K009	Distillation bottoms from the production of acetaldehyde from ethylene	(T)
K010	Distillation side cuts from the production of acetaldehyde from ethylene	(T)
K011	Bottom stream from the wastewater stripper in the production of acrylonitrile	(R, T)
K012	Still bottoms from the final purification of acrylonitrile in the production of acrylonitrile	(T)
K013	Bottom stream from the acetonitrile column in the production of acrylonitrile	(R, T)
K014	Bottoms from the acetonitrile purification column in the production of acrylonitrile	(T)
K015	Still bottoms from the distillation of benzyl chloride	(T)
K016	Heavy ends or distillation residues from the production of carbon tetrachloride	(T)
K017	Heavy ends (still bottoms) from the purification column in the production of epichlorohydrin	(T)
K018	Heavy ends from fractionation in ethyl chloride production	(T)
K019	Heavy ends from the distillation of ethylene dichloride in ethylene dichloride production	(T)
K020	Heavy ends from the distillation of vinyl chloride in vinyl chloride monomer production	(T)
K021	Aqueous spent antimony catalyst waste from fluoromethanes production	(T)
K022	Distillation bottom tars from the production of phenol/acetone from cumene	(T)
K023	Distillation light ends from the production of phthalic anhydride from naphthalene	(T)
K024	Distillation bottoms from the production of phthalic anhydride from naphthalene	(T)
K025	Distillation bottoms from the production of nitrobenzene by the nitration of benzene	(T)
K026	Stripping still tails from the production of methyl ethyl pyridines	(T)
K027	Centrifuge residue from toluene diisocyanate production	(R, T)
K028	Spent catalyst from the hydrochlorinator reactor in the production of 1,1,1-trichloroethane	(T)
K029	Waste from the product stream stripper in the production of 1,1,1-trichloroethane	(T)
K030	Column bottoms or heavy ends from the combined production of trichloroethylene and perchloroethylene	(T)
Pesticides:		
K031	By-products salts generated in the production of MSMA and cacodylic acid	(T)
K032	Wastewater treatment sludge from the production of chlordane	(T)
K033	Wastewater and scrub water from the chlorination of cyclopentadiene in the production of chlordane	(T)
K034	Filter solids from the filtration of hexachlorocyclopentadiene in the production of chlordane	(T)
K035	Wastewater treatment sludges generated in the production of creosote	(T)
K036	Still bottoms from toluene reclamation distillation in the production of disulfoton	(T)
K037	Wastewater treatment sludges from the production of disulfoton	(T)
K038	Wastewater from the washing and stripping of phorate production	(T)
K039	Filter cake from the filtration of diethylphosphorodithoric acid in the production of phorate	(T)
K040	Wastewater treatment sludge from the production of phorate	(T)
K041	Wastewater treatment sludge from the production of toxaphene	(T)
K042	Heavy ends or distillation residues from the distillation of tetrachlorobenzene in the production of 2,4,5-T	(T)
K043	2,6-Dichlorophenol waste from the production of 2,4-D	(T)
Explosives:		
K044	Wastewater treatment sludges from the manufacturing and processing of explosives	(R)
K045	Spent carbon from the treatment of wastewater containing explosives	(R)
K046	Wastewater treatment sludges from the manufacturing, formulation and loading of lead-based initiating compounds	(T)
K047	Pink/red water from TNT operations	(R)
Petroleum Refining:		
K048	Dissolved air flotation (DAF) float from the petroleum refining industry	(T)
K049	Slop oil emulsion solids from the petroleum refining industry	(T)
K050	Heat exchanger bundle cleaning sludge from the petroleum refining industry	(T)
K051	API separator sludge from the petroleum refining industry	(T)
K052	Tank bottoms (leaded) from the petroleum refining industry	(T)
Leather Tanning Finishing:		
K053	Chrome (blue) trimmings generated by the following subcategories of the leather tanning and finishing industry: hair pulp/chrome tan/retan/wet finish; hair save/chrome tan/retan/wet finish; retan/wet finish; no beamhouse; through-the-blue; and shearling.	(T)

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§ 261.32 Hazardous waste from specific sources.—Continued

Industry and EPA hazardous waste No.	Hazardous waste	Hazard code
K054	Chrome (blue) shavings generated by the following subcategories of the leather tanning and finishing industry: hair pulp/chrome tan/retan/wet finish; hair save/chrome tan/retan/wet finish; retan/wet finish; no beamhouse; through-the-blue; and shearling.	(T)
K055	Buffing dust generated by the following subcategories of the leather tanning and finishing industry: hair pulp/chrome tan/retan/wet finish; hair save/chrome tan/retan/wet finish; retan/wet finish; no beamhouse; and through-the-blue.	(T)
K056	Sewar screenings generated by the following subcategories of the leather tanning and finishing industry: hair pulp/chrome tan/retan/wet finish; hair save/chrome tan/retan/wet finish; retan/wet finish; no beamhouse; through-the-blue; and shearling.	(T)
K057	Wastewater treatment sludges generated by the following subcategories of the leather tanning and finishing industry: hair pulp/chrome tan/retan/wet finish; hair save/chrome tan/retan/wet finish; retan/wet finish; no beamhouse; through-the-blue and shearling.	(T)
K058	Wastewater treatment sludges generated by the following subcategories of the leather tanning and finishing industry: hair pulp/chrome tan/retan/wet finish; hair save/chrome tan/retan/wet finish; and through-the-blue.	(R, T)
K059	Wastewater treatment sludges generated by the following subcategory of the leather tanning and finishing industry: hair save/non-chrome tan/retan/wet finish.	(R)
Iron and Steel:		
K060	Ammonia still lime sludge from coking operations	(T)
K061	Emission control dust/sludge from the electric furnace production of steel	(T)
K062	Spent pickle liquor from steel finishing operations	(C, T)
K063	Sludge from lime treatment of spent pickle liquor from steel finishing operations	(T)
Primary Copper: K064	Acid plant blowdown slurry/sludge resulting from the thickening of blowdown slurry from primary copper production	(T)
Primary Lead: K065	Surface impoundment solids contained in and dredged from surface impoundments at primary lead smelting facilities	(T)
Primary Zinc:		
K066	Sludge from treatment of process wastewater and/or acid plant blowdown from primary zinc production	(T)
K067	Electrolytic anode slimes/sludges from primary zinc production	(T)
K068	Cadmium plant leach residue (iron oxide) from primary zinc production	(T)
Secondary Lead: K069	Emission control dust/sludge from secondary lead smelting	(T)

§ 261.33. Discarded Commercial Chemical Products, Off-Specification Species, Containers, and Spill Residues Thereof.

The following materials or items are hazardous wastes if and when they are discarded or intended to be discarded:

(a) Any commercial chemical product, or manufacturing chemical intermediate having the generic name listed in paragraphs (e) or (f) of this section.

(b) Any off-specification commercial chemical product or manufacturing chemical intermediate which, if it met specifications, would have the generic name listed in paragraphs (e) or (f) of this section.

(c) Any container or inner liner removed from a container that has been used to hold any commercial chemical product or manufacturing chemical intermediate having the generic name listed in paragraph (e) of this section, unless:

(1) The container or inner liner has been triple rinsed using a solvent capable of removing the commercial chemical product or manufacturing chemical intermediate;

(2) The container or inner liner has been cleaned by another method that has been shown in the scientific literature, or by tests conducted by the generator, to achieve equivalent removal; or

(3) In the case of a container, the inner liner that prevented contact of the commercial chemical product or manufacturing chemical intermediate with the container, has been removed.

(d) Any residue or contaminated soil, water or other debris resulting from the cleanup of a spill, into or on any land or water, of any commercial chemical product or manufacturing chemical intermediate having the generic name listed in paragraphs (e) or (f) of this Section.

[Comment: The phrase "commercial chemical product or manufacturing chemical intermediate having the generic name listed in. . ." refers to a chemical substance which is manufactured or formulated for commercial or manufacturing use. It does not refer to a material, such as a manufacturing process waste, that contains any of the substances listed in paragraphs (e) or (f). Where a manufacturing process waste is deemed to be a hazardous waste because it contains a substance listed in paragraphs (e) or (f), such waste will be listed in either §§ 261.31 or 261.32 or will be identified as a hazardous waste by the characteristics set forth in Subpart C of this Part.]

(e) The commercial chemical products or manufacturing chemical intermediates, referred to in paragraphs (a) through (d) of this section, are identified as acute hazardous wastes (H) and are subject to the small quantity exclusion defined in § 261.5(c). These wastes and their corresponding EPA Hazardous Waste Numbers are:

Hazardous waste No.	Substance
	1080 see P058
	1081 see P057
	(Acetato)phenylmercury see P092
	Acetone cyanohydrin see P069
P001	3-(alpha-Acetonylbenzyl)-4-hydroxycoumarin and salts
P002	1-Acetyl-2-thiourea
P003	Acrolein
	Agarin see P007
	Agrosan GN 5 see P092
	Aldicarb see P069
	Aldifen see P048

—Continued

Hazardous waste No.	Substance
P004	Aldrin
	Alginycin see P092
P005	Allyl alcohol
P006	Aluminum phosphide (R)
	ALVIT see P037
	Aminoethylene see P054
P007	5-(Aminomethyl)-3-isoxazolol
P008	4-Aminopyridine
	Ammonium metavanadate see P119
P009	Ammonium picrate (R)
	ANTIMUCIN WDR see P092
	ANTURAT see P073
	AQUATHOL see P088
	ARETIT see P020
P010	Arsenic acid
P011	Arsenic pentoxide
P012	Arsenic trioxide
	Athrombin see P001
	AVITROL see P008
	Aziridine see P054
	AZOFOS see P061
	Azophos see P061
	BANTU see P072
P013	Barium cyanide
	BASENITE see P020
	BCME see P016
P014	Benzenethiol
	Benzoepin see P050
P015	Beryllium dust
P016	Bis(chloromethyl) ether
	BLADAN-M see P071
P017	Bromoacetone
P018	Brucine
P019	2-Butanone peroxide
	BUFEN see P092
	Butaphene see P020
P020	2-sec-Butyl-4,6-dinitrophenol
P021	Calcium cyanide
	CALDON see P020
P022	Carbon disulfide
	CERESAN see P092
	CERESAN UNIVERSAL see P092
	CHEMOX GENERAL see P020
	CHEMOX P.E. see P020
	CHEM-TOL see P090
P023	Chloroacetaldehyde
P024	p-Chloroaniline
P025	1-(p-Chlorobenzoyl)-5-methoxy-2-methylindole-3-acetic acid
P026	1-(o-Chlorophenyl)thiourea
P027	3-Chloropropionitrile
P028	alpha-Chlorotoluene
P029	Copper cyanide
	CRETOX see P108
	Coumadin see P001
	Coumafen see P001
P030	Cyanides

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Hazardous waste No.	Substance [1]
P031	Cyanogen
P032	Cyanogen bromide
P033	Cyanogen chloride
	Cyclodan see P050
P034	2-Cyclohexyl-4,6-dinitrophenol
	D-CON see P001
	DETHMOR see P001
	DETHNEL see P001
	DFP see P043
P035	2,4-Dichlorophenoxyacetic acid (2,4-D)
P036	Dichlorophenylarsine
	Dicyanogen see P031
P037	Dieldrin
	DIELDREX see P037
P038	Diethylarsine
P039	0,0-Diethyl-S-(2-(ethylthio)ethyl)ester of phosphorothioic acid
P040	0,0-Diethyl-0-(2-pyrazinyl)phosphorothioate
P041	0,0-Diethyl phosphoric acid, 0-p-nitrophenyl ester
P042	3,4-Dihydroxy-alpha-(methylamino)-methyl benzyl alcohol
P043	Diisopropylfluorophosphate
	DIMETATE see P044
	1,4:5,8-Dimethanonaphthalene, 1,2,3,4,10,10-hexachloro-1,4,4a,5,8,8a-hexahydro endo, endo see P060
P044	Dimethoate
P045	3,3-Dimethyl-1-(methylthio)-2-butanone-O-[(methylamino)carbonyl] oxime
P046	alpha,alpha-Dimethylphenethylamine
	Dinitrocyclohexylphenol see P034
P047	4,6-Dinitro-o-cresol and salts
P048	2,4-Dinitrophenol
	DINOSEB see P020
	DINOSEBE see P020
	Disulfoton see P039
P049	2,4-Dithiobiuret
	DNBP see P020
	DOLCO MOUSE CEREAL see P108
	DOW GENERAL see P020
	DOW GENERAL WEED KILLER see P020
	DOW SELECTIVE WEED KILLER see P020
	DOWICIDE G see P090
	DYANACIDE see P092
	EASTERN STATES DUOCIDE see P001
	ELGETOL see P020
P050	Endosulfan
P051	Endrin
	Epinephrine see P042
P052	Ethylcyanide
P053	Ethylenediamine
P054	Ethyleneimine
	FASCO FASCRAT POWDER see P001
	FEMMA see P091
P055	Ferric cyanide
P056	Fluorine
P057	2-Fluoroacetamide
P058	Fluoroacetic acid, sodium salt
	FOLODOL-80 see P071
	FOLODOL M see P071
	FOSFERNO M 50 see P071
	FRATOL see P058
	Fulminate of mercury see P065
	FUNGITOX OR see P092
	FUSSOF see P057
	GALLOTOX see P092
	GEARPHOS see P071
	GERUTOX see P020
P059	Heptachlor
P060	1,2,3,4,10,10-Hexachloro-1,4,4a,5,8,8a-hexahydro-1,4:5,8-endo, endo-dimethanonaphthalene.
	1,4,5,6,7,7-Hexachloro-cyclo-5-norbornene-2,3-dimethanol sulfite see P050
P061	Hexachloropropene
P062	Hexaethyl tetraphosphate
	HOSTAQUICK see P092
	HOSTAQUIK see P092
	Hydrazomethane see P068
P063	Hydrocyanic acid
	ILLOXOL see P097
	INDOCI see P025
	Indomethacin see P025
	INSECTOPHENE see P050
	Isodrin see P060
P064	Isocyanic acid, methyl ester
	KILOSEB see P020
	KOP-THIODAN see P050
	KWIK-KIL see P108
	KWIKSAN see P092
	KUMADER see P001
	KYPFARIN see P001
	LEYTOSAN see P092
	LIQUIPHENE see P092
	MALIK see P050
	MAREVAN see P001
	MAR-FRIN see P001
	MARTIN'D MAR-FRIN see P001
	MAVERAN see P001
	MEGATOX see P005
P065	Mercury fulminate
	MERSOLITE see P092
	METACID 50 see P071
	METAFOS see P071
	METAPHOR see P071
	METAPHOS see P071
	METASOL 30 see P092
P066	Methomyl
P067	2-Methylaziridine
	METHYL-E 605 see P071
P068	Methyl hydrazine
	Methyl isocyanate see P064
P069	2-Methyllactonitrile
P070	2-Methyl-2-(methylthio)propionaldehyde-o-(methylcarbonyl) oxime
	METHYL NITRON see P042
P071	Methyl parathion
	METRON see P071
	MOLE DEATH see P108
	MOUSE-NOTS see P108
	MOUSE-RID see P108
	MOUSE-TOX see P108
	MUSCIMOL see P007
P072	1-Naphthyl-2-thiourea
P073	Nickel carbonyl
P074	Nickel cyanide
P075	Nicotine and salts
P076	Nitric oxide
P077	p-Nitroaniline
P078	Nitrogen dioxide
P079	Nitrogen peroxide
P080	Nitrogen tetroxide
P081	Nitroglycerine (R)
P082	N-Nitrosodimethylamine
P083	N-Nitrosodiphenylamine
P084	N-Nitrosomethylvinylamine
	NYLMERATE see P092
	OCTALOX see P037
P085	Octamethylpyrophosphoramide
	OCTAN see P092
P086	Oleyl alcohol condensed with 2 moles ethylene oxide
	OMPA see P085
	OMPACIDE see P085
	OMPAX see P085
P087	Osmium tetroxide
P088	7-Oxabicyclo[2.2.1]heptane-2,3-dicarboxylic acid
	PANVARFIN see P001
	PANORAM D-31 see P037
	PANTHERINE see P007
	PANWARFIN see P001
P089	Parathion
	PCP see P090
	PENNCAP-M see P071
	PENOXYL CARBON N see P045
P090	Pentachlorophenol
	Pentachlorophenate see P090
	PENTA-KILL see P090
	PENTASOL see P090
	PENWAR see P090
	PERMICIDE see P090
	PERMAGUARD see P090
	PERMATOX see P090
	PERMITE see P090
	PERTOX see P090
	PESTOX III see P085
	PHENMAD see P092
	PHENOTAN see P020
P091	Phenyl dichloroarsine
	Phenyl mercaptan see P014
P092	Phenylmercury acetate
P093	N-Phenylthiourea
	PHILIPS 1861 see P006
	PHIX see P092
P094	Phorate
P095	Phosgene
P096	Phosphine
P097	Phosphorothioic acid, 0,0-dimethyl ester, 0-ester with N,N-dimethyl benzene sulfonamide
	Phosphorothioic acid 0,0-dimethyl-0-(p-nitrophenyl) ester see P071
	PIED PIPER MOUSE SEED see P108
P098	Potassium cyanide
P099	Potassium silver cyanide
	PREMERGE see P020
P100	1,2-Propanediol
	Propargyl alcohol see P102
P101	Propionitrile
P102	2-Propyn-1-ol
	PROTHROMADIN See P001
	QUICKSAM see P092
	QUINTOX see P037
	RAT AND MICE BAIT see P001
	RAT-A-WAY see P001
	RAT-B-GON see P001
	RAT-O-CIDE #2 see P001
	RAT-GUARD see P001
	RAT-KILL see P001
	RAT-MIX see P001
	RATS-NO-MORE see P001
	RAT-OLA see P001
	RATOREX see P001
	RATTUNAL see P001
	RAT-TROL see P001
	RO-DETH see P001
	RO-DEX see P108
	ROSEX see P001
	ROUGH & READY MOUSE MIX see P001
	SANASEED see P108
	SANTOBRITE see P090
	SANTOPHEN see P090
	SANTOPHEN 20 see P090
	SCHRADAN see P085
P103	Selenourea
P104	Silver Cyanide
	SMITE see P105
	SPARIC see P020
	SPOR-KIL see P092
	SPRAY-TROL BRAND RODEN-TROL see P001
	SPURGE see P020
P105	Sodium azide
	Sodium coumadin see P001
P106	Sodium cyanide
	Sodium fluoroacetate see P058
	SODIUM WARFARIN see P001
	SOLFARIN see P001
	SOLFOBLACK BB see P048
	SOLFOBLACK SB see P048
P107	Strontium sulfide
P108	Strychnine and salts
	SUBTEX see P020
	SYSTAM see P085
	TAG FUNGICIDE see P092
	TEKWAISA see P071
	TEMIC see P070
	TEMIK see P070
	TERM-I-TROL see P090
P109	Tetraethyldithiopyrophosphate
P110	Tetraethyl lead
P111	Tetraethylpyrophosphate
P112	Tetranitromethane
	Tetraphosphoric acid, hexaethyl ester see P062
	TETROSULFUR BLACK PB see P048
	TETROSULPHUR PBR see P048
P113	Thallic oxide
	Thallium peroxide see P113
P114	Thallium selenite
P115	Thallium (I) sulfate
	THIFOR see P092
	THIMUL see P092
	THIODAN see P050
	THIOFOR see P050
	THIOMUL see P050
	THIONEX see P050
	THIOPHENT see P071
P116	Thiosemicarbazide
	Thiosulfan tional see P050
P117	Thiuram
	THOMPSON'S WOOD FIX see P090
	TIOVEL see P050
P118	Trichloromethanethiol
	TWIN LIGHT RAT AWAY see P001
	USAF RH-8 see P068
	USAF EK-4880 see P002
P119	Vanadic acid, ammonium salt
P120	Vanadium pentoxide
	VOFATOX see P071
	WAHADU see P120
	WARCOUMIN see P001
	WARFARIN SODIUM see P001
	WARFICIDE see P001
	WOFOTOX see P072
	YANOCK see P057
	YASOKNOCK see P058
	ZIARNIK see P092
P121	Zinc cyanide
P122	Zinc phosphide (R,T)
	ZOOCOUMARIN see P001

[1] The Agency included those trade names of which it was aware; an omission of a trade name does not imply that the omitted material is not hazardous. The material is hazardous if it is listed under its generic name.

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(f) The commercial chemical products or manufacturing chemical intermediates, referred to in paragraphs (a), (b) and (d) of this section, are identified as toxic wastes (T) unless otherwise designated and are subject to the small quantity exclusion defined in § 261.5 (a) and (b). These wastes and their corresponding EPA Hazardous Waste Numbers are:

Hazardous Waste No.	Substance[1]
	AAF see U005
U001	Acetaldehyde
U002	Acetone (I)
U003	Acetonitrile (I,T)
U004	Acetophenone
U005	2-Acetylaminofluorene
U006	Acetyl chloride (C,T)
U007	Acrylamide
	Acetylene tetrachloride see U209
	Acetylene trichloride see U228
U008	Acrylic acid (I)
U009	Acrylonitrile
	AEROTHENE TT see U226
	3-Amino-5-(p-acetamidophenyl)-1H-1,2,4-triazole, hydrate see U011
U010	6-Amino-1,1a,2,8,8a,8b-hexahydro-8-(hydroxymethyl)8-methoxy-5-methylcarbamate azirino(2',3':3,4) pyrrolo(1,2-a) indole-4, 7-dione (ester)
U011	Amitrole
U012	Aniline (I)
U013	Asbestos
U014	Auramine
U015	Azaserine
U016	Benz[c]acridine
U017	Benzal chloride
U018	Benz[a]anthracene
U019	Benzene
U020	Benzenesulfonyl chloride (C,R)
U021	Benzidine
	1,2-Benzisothiazolin-3-one, 1,1-dioxide see U202
	Benzo[a]anthracene see U018
U022	Benzo[a]pyrene
U023	Benzotrichloride (C,R,T)
U024	Bis(2-chloroethoxy)methane
U025	Bis(2-chloroethyl) ether
U026	N,N-Bis(2-chloroethyl)-2-naphthylamine
U027	Bis(2-chloroisopropyl) ether
U028	Bis(2-ethylhexyl) phthalate
U029	Bromomethane
U030	4-Bromophenyl phenyl ether
U031	n-Butyl alcohol (I)
U032	Calcium chromate
	Carbolic acid see U188
	Carbon tetrachloride see U211
U033	Carbonyl fluoride
U034	Chloral
U035	Chlorambucil
U036	Chlordane
U037	Chlorobenzene
U038	Chlorobenzilate
U039	p-Chloro-m-cresol
U040	Chlorodibromomethane
U041	1-Chloro-2,3-epoxypropane
	CHLOROETHENE NU see U226
U042	Chloroethyl vinyl ether
U043	Chloroethene
U044	Chloroform (I,T)
U045	Chloromethane (I,T)
U046	Chloromethyl methyl ether
U047	2-Chloronaphthalene
U048	2-Chlorophenol
U049	4-Chloro-o-toluidine hydrochloride
U050	Chrysene
	C.I. 23060 see U073
U051	Cresote
U052	Cresols
U053	Crotonaldehyde
U054	Cresylic acid
U055	Cumene
	Cyanomethane see U003
U056	Cyclohexane (I)
U057	Cyclohexanone (I)
U058	Cyclophosphamide
U059	Daunomycin
U060	DDD
U061	DDT
U062	Diallate
U063	Dibenz[a,h]anthracene
	Dibenzo[a,h]anthracene see U063
U064	Dibenzo[a,i]pyrene
U065	Dibromochloromethane
U066	1,2-Dibromo-3-chloropropane
U067	1,2-Dibromoethane
U068	Dibromomethane
U069	Di-n-butyl phthalate
U070	1,2-Dichlorobenzene
U071	1,3-Dichlorobenzene
U072	1,4-Dichlorobenzene
U073	3,3'-Dichlorobenzidine
U074	1,4-Dichloro-2-butene
	3,3'-Dichloro-4,4'-diaminobiphenyl see U073
U075	Dichlorodifluoromethane
U076	1,1-Dichloroethane
U077	1,2-Dichloroethane
U078	1,1-Dichloroethylene
U079	1,2-trans-dichloroethylene
U080	Dichloromethane
	Dichloromethylbenzene see U017
U081	2,4-Dichlorophenol
U082	2,6-Dichlorophenol
U083	1,2-Dichloropropane
U084	1,3-Dichloropropene
U085	Diepoxybutane (I,T)
U086	1,2-Diethylhydrazine
U087	0,0-Diethyl-S-methyl ester of phosphorodithioic acid
U088	Diethyl phthalate
U089	Diethylstilbestrol
U090	Dihydrosafrole
U091	3,3'-Dimethoxybenzidine
U092	Dimethylamine (I)
U093	p-Dimethylaminoazobenzene
U094	7,12-Dimethylbenz[a]anthracene
U095	3,3'-Dimethylbenzidine
U096	alpha,alpha-Dimethylbenzylhydroperoxide (R)
U097	Dimethylcarbamoyl chloride
U098	1,1-Dimethylhydrazine
U099	1,2-Dimethylhydrazine
U100	Dimethylnitrosoamine
U101	2,4-Dimethylphenol
U102	Dimethyl phthalate
U103	Dimethyl sulfate
U104	2,4-Dinitrophenol
U105	2,4-Dinitrotoluene
U106	2,6-Dinitrotoluene
U107	Di-n-octyl phthalate
U108	1,4-Dioxane
U109	1,2-Diphenylhydrazine
U110	Dipropylamine (I)
U111	Di-n-propylnitrosamine
	EBDC see U114
	1,4-Epoxybutane see U213
U112	Ethyl acetate (I)
U113	Ethyl acrylate (I)
U114	Ethylenebisdithiocarbamate
U115	Ethylene oxide (I,T)
U116	Ethylene thiourea
U117	Ethyl ether (I,T)
U118	Ethylmethacrylate
U119	Ethyl methanesulfonate
	Ethylnitrile see U003
	Firemaster T23P see U235
U120	Fluoranthene
U121	Fluorotrichloromethane
U122	Formaldehyde
U123	Formic acid (C,T)
U124	Furan (I)
U125	Furfural (I)
U126	Glycidylaldehyde
U127	Hexachlorobenzene
U128	Hexachlorobutadiene
U129	Hexachlorocyclohexane
U130	Hexachlorocyclopentadiene
U131	Hexachloroethane
U132	Hexachlorophene
U133	Hydrazine (R,T)
U134	Hydrofluoric acid (C,T)
U135	Hydrogen sulfide
	Hydroxybenzene see U188
U136	Hydroxydimethyl arsine oxide
	4,4'-(Imidocarbonyl)bis(N,N-dimethyl)aniline see U014
U137	Indeno(1,2,3-cd)pyrene
U138	Iodomethane
U139	Iron Dextran
U140	Isobutyl alcohol
U141	Isosafrole
U142	Kepone
U143	Lasiocarpine
U144	Lead acetate
U145	Lead phosphate
U146	Lead subacetate
U147	Maleic anhydride
U148	Maleic hydrazide
U149	Malononitrile
	MEK Peroxide see U160
U150	Melphalan
U151	Mercury
U152	Methacrylonitrile
U153	Methanethiol
U154	Methanol
U155	Methapyrilene
	Methyl alcohol see U154
U156	Methyl chlorocarbonate
	Methyl chloroform see U226
U157	3-Methylcholanthrene
	Methyl chloroformate see U156
U158	4,4'-Methylene-bis-(2-chloroaniline)
U159	Methyl ethyl ketone (MEK) (I,T)
U160	Methyl ethyl ketone peroxide (R)
	Methyl iodide see U138
U161	Methyl isobutyl ketone
U162	Methyl methacrylate (R,T)
U163	N-Methyl-N'-nitro-N-nitrosoguanidine
U164	Methylthiouracil
	Mitomycin C see U010
U165	Naphthalene
U166	1,4-Naphthoquinone
U167	1-Naphthylamine
U168	2-Naphthylamine
U169	Nitrobenzene (I,T)
	Nitrobenzol see U169
U170	4-Nitrophenol
U171	2-Nitropropane (I)
U172	N-Nitrosodi-n-butylamine
U173	N-Nitrosodiethanolamine
U174	N-Nitrosodiethylamine
U175	N-Nitrosodi-n-propylamine
U176	N-Nitroso-n-ethylurea
U177	N-Nitroso-n-methylurea
U178	N-Nitroso-n-methylurethane
U179	N-Nitrosopiperidine
U180	N-Nitrosopyrrolidine
U181	5-Nitro-o-toluidine
U182	Paraldehyde
	PCNB see U185
U183	Pentachlorobenzene
U184	Pentachloroethane
U185	Pentachloronitrobenzene
U186	1,3-Pentadiene (I)
	Perc see U210
	Perchlorethylene see U210
U187	Phenacetin
U188	Phenol
U189	Phosphorous sulfide (R)
U190	Phthalic anhydride
U191	2-Picoline
U192	Pronamide
U193	1,3-Propane sultone
U194	n-Propylamine (I)
U196	Pyridine
U197	Quinones
U200	Reserpine
U201	Resorcinol
U202	Saccharin
U203	Safrole
U204	Selenious acid
U205	Selenium sulfide (R,T)
	Silvex see U233
U206	Streptozotocin
	2,4,5-T see U232
U207	1,2,4,5-Tetrachlorobenzene
U208	1,1,1,2-Tetrachloroethane
U209	1,1,2,2-Tetrachloroethane
U210	Tetrachloroethene
	Tetrachloroethylene see U210
U211	Tetrachloromethane
U212	2,3,4,6-Tetrachlorophenol
U213	Tetrahydrofuran (I)
U214	Thallium (I) acetate
U215	Thallium (I) carbonate
U216	Thallium (I) chloride
U217	Thallium (I) nitrate
U218	Thioacetamide
U219	Thiourea
U220	Toluene
U221	Toluenediamine
U222	o-Toluidine hydrochloride

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Hazardous Waste No.	Substance[1]
U223	Toluene diisocyanate
U224	Toxaphene
	2,4,5-TP see U233
U225	Tribromomethane
U226	1,1,1-Trichloroethane
U227	1,1,2-Trichloroethane
U228	Trichloroethene
	Trichloroethylene see U228
U229	Trichlorofluoromethane
U230	2,4,5-Trichlorophenol
U231	2,4,6-Trichlorophenol
U232	2,4,5-Trichlorophenoxyacetic acid
U233	2,4,5-Trichlorophenoxypropionic acid alpha, alpha, alpha- Trichlorotoluene see U023
	TRI-CLENE see U228
U234	Trinitrobenzene (R,T)
U235	Tris(2,3-dibromopropyl) phosphate
U236	Trypan blue
U237	Uracil mustard
U238	Urethane
	Vinyl chloride see U043
	Vinylidene chloride see U078
U239	Xylene

[1] The Agency included those trade names of which it was aware; an omission of a trade name does not imply that it is not hazardous. The material is hazardous if it is listed under its generic name.

Appendix I—Representative Sampling Methods

The methods and equipment used for sampling waste materials will vary with the form and consistency of the waste materials to be sampled. Samples collected using the sampling protocols listed below, for sampling waste with properties similar to the indicated materials, will be considered by the Agency to be representative of the waste.

Extremely viscous liquid—ASTM Standard D140–70 Crushed or powdered material—ASTM Standard D346–75 Soil or rock-like material—ASTM Standard D420–69 Soil-like material—ASTM Standard D1452–65

Fly Ash-like material—ASTM Standard D2234–76 [ASTM Standards are available from ASTM, 1916 Race St., Philadelphia, PA 19103]

Containerized liquid wastes—"COLIWASA" described in "Test Methods for the Evaluation of Solid Waste, Physical/Chemical Methods," [1] U.S. Environmental Protection Agency, Office of Solid Waste, Washington, D.C. 20460. [Copies may be obtained from Solid Waste Information, U.S. Environmental Protection Agency, 26 W. St. Clair St., Cincinnati, Ohio 45268]

Liquid waste in pits, ponds, lagoons, and similar reservoirs.—"Pond Sampler" described in "Test Methods for the Evaluation of Solid Waste, Physical/Chemical Methods." [1]

This manual also contains additional information on application of these protocols.

[1] These methods are also described in "Samplers and Sampling Procedures for Hazardous Waste Streams," EPA 600/2–80–018, January 1980.

Appendix II—EP Toxicity Test Procedure

A. Extraction Procedure (EP)

1. A representative sample of the waste to be tested (minimum size 100 grams) should be obtained using the methods specified in Appendix I or any other methods capable of yielding a representative sample within the meaning of Part 260. [For detailed guidance on conducting the various aspects of the EP see "Test Methods for the Evaluation of Solid Waste, Physical/Chemical Methods," SW–846, U.S. Environmental Protection Agency Office of Solid Waste, Washington, D.C. 20460.[1]]

2. The sample should be separated into its component liquid and solid phases using the method described in "Separation Procedure" below. If the solid residue [2] obtained using this method totals less than 0.5% of the original weight of the waste, the residue can be discarded and the operator should treat the liquid phase as the extract and proceed immediately to Step 8.

3. The solid material obtained from the Separation Procedure should be evaluated for its particle size. If the solid material has a surface area per gram of material equal to, or greater than, 3.1 cm^2 or passes through a 9.5 mm (0.375 inch) standard sieve, the operator should proceed to Step 4. If the surface area is smaller or the particle size larger than specified above, the solid material should be prepared for extraction by crushing, cutting or grinding the material so that it passes through a 9.5 mm (0.375 inch) sieve or, if the material is in a single piece, by subjecting the material to the "Structural Integrity Procedure" described below.

4. The solid material obtained in Step 3 should be weighed and placed in an extractor with 16 times its weight of deionized water. Do not allow the material to dry prior to weighing. For purposes of this test, an acceptable extractor is one which will impart sufficient agitation to the mixture to not only prevent stratification of the sample and extraction fluid but also insure that all sample surfaces are continously brought into contact with well mixed extraction fluid.

5. After the solid material and deionized water are placed in the extractor, the operator should begin agitation and measure the pH of the solution in the extractor. If the pH is greater than 5.0, the pH of the solution should be decreased to 5.0 ± 0.2 by adding 0.5 N acetic acid. If the pH is equal to or less than 5.0, no acetic acid should be added. The pH of the solution should be monitored, as described below, during the course of the extraction and if the pH rises above 5.2, 0.5N acetic acid should be added to bring the pH down to 5.0 ± 0.2. However, in no event shall the aggregate amount of acid added to the solution exceed 4 ml of acid per gram of solid. The mixture should be agitated for 24 hours and maintained at 20°–40° C (68°–104° F) during this time. It is recommended that the operator monitor and adjust the pH during the course of the extraction with a device such as the Type 45–A pH Controller manufactured by Chemtrix, Inc., Hillsboro, Oregon 97123 or its equivalent, in conjunction with a metering pump and reservoir of 0.5N acetic acid. If such a system is not available, the following manual procedure shall be employed:

(a) A pH meter should be calibrated in accordance with the manufacturer's specifications.

(b) The pH of the solution should be checked and, if necessary, 0.5N acetic acid should be manually added to the extractor until the pH reaches 5.0 ± 0.2. The pH of the solution should be adjusted at 15, 30 and 60 minute intervals, moving to the next longer interval if the pH does not have to be adjusted more than 0.5N pH units.

(c) The adjustment procedure should be continued for at least 6 hours.

(d) If at the end of the 24-hour extraction period, the pH of the solution is not below 5.2 and the maximum amount of acid (4 ml per gram of solids) has not been added, the pH should be adjusted to 5.0 ± 0.2 and the extraction continued for an additional four hours, during which the pH should be adjusted at one hour intervals.

6. At the end of the 24 hour extraction period, deionized water should be added to the extractor in an amount determined by the following equation:

V= (20)[W]—16[W]—A
V= ml deionized water to be added
W= weight in grams of solid charged to extractor
A= ml of 0.5N acetic acid added during extraction

7. The material in the extractor should be separated into its component liquid and solid phases as described under "Separation Procedure."

8. The liquids resulting from Steps 2 and 7 should be combined. This

[1] Copies may be obtained from Solid Waste Information, U.S. Environmental Protection Agency, 26 W. St. Clair Street, Cincinnati, Ohio 45268.

[2] The percent solids is determined by drying the filter pad at 80° C until it reaches constant weight and then calculating the percent solids using the following equation:

$$\frac{\text{(weight of pad + solid) − (tare weight of pad)}}{\text{initial weight of sample}} \times 100 = \%\ \text{solids}$$

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combined liquid (or the waste itself if it has less than ½ percent solids, as noted in Step 2) is the extract and should be analyzed for the presence of any of the contaminants specified in Table I of § 261.24 using the Analytical Procedures designated below.

Separation Procedure

Equipment: A filter holder, designed for filtration media having a nominal pore size of 0.45 micrometers and capable of applying a 5.3 kg/cm² (75 psi) hydrostatic pressure to the solution being filtered shall be used. For mixtures containing nonabsorptive solids, where separation can be affected without imposing a 5.3 kg/cm² pressure differential, vacuum filters employing a 0.45 micrometers filter media can be used. (For further guidance on filtration equipment or procedures see "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods.")

Procedure: [3]

(i) Following manufacturer's directions, the filter unit should be assembled with a filter bed consisting of a 0.45 micrometer filter membrane. For difficult or slow to filter mixtures a prefilter bed consisting of the following prefilters in increasing pore size (0.65 micrometer membrane, fine glass fiber prefilter, and coarse glass fiber prefilter) can be used.

(ii) The waste should be poured into the filtration unit.

(iii) The reservoir should be slowly pressurized until liquid begins to flow from the filtrate outlet at which point the pressure in the filter should be immediately lowered to 10–15 psig. Filtration should be continued until liquid flow ceases.

(iv) The pressure should be increased stepwise in 10 psi increments to 75 psig and filtration continued until flow ceases or the pressurizing gas begins to exit from the filtrate outlet.

(v) The filter unit should be depressurized, the solid material removed and weighed and then transferred to the extraction apparatus, or, in the case of final filtration prior to analysis, discarded. Do not allow the material retained on the filter pad to dry prior to weighing.

(vi) The liquid phase should be stored at 4°C for subsequent use in Step 8.

B. Structural Integrity Procedure

Equipment: A Structural Integrity Tester having a 3.18 cm (1.25 in.) diameter hammer weighing 0.33 kg (0.73 lbs.) and having a free fall of 15.24 cm (6 in.) shall be used. This device is available from Associated Design and Manufacturing Company, Alexandria, VA., 22314, as Part No. 125, or it may be fabricated to meet the specifications shown in Figure 1.

Procedure:

1. The sample holder should be filled with the material to be tested. If the sample of waste is a large monolithic block, a portion should be cut from the block having the dimensions of a 3.3 cm (1.3 in.) diameter x 7.1 cm (2.8 in.) cylinder. For a fixated waste, samples may be cast in the form of a 3.3 cm (1.3 in.) diameter x 7.1 cm (2.8 in.) cylinder for purposes of conducting this test. In such cases, the waste may be allowed to cure for 30 days prior to further testing.

2. The sample holder should be placed into the Structural Integrity Tester, then the hammer should be raised to its maximum height and dropped. This should be repeated fifteen times.

3. The material should be removed from the sample holder, weighed, and transferred to the extraction apparatus for extraction.

Analytical Procedures for Analyzing Extract Contaminants

The test methods for analyzing the extract are as follows:

(1) For arsenic, barium, cadmium, chromium, lead, mercury, selenium or silver: "Methods for Analysis of Water and Wastes," Environmental Monitoring and Support Laboratory, Office of Research and Development, U.S. Environmental Protection Agency, Cincinnati, Ohio 45268 (EPA–600/4–79–020, March 1979),

(2) For Endrin; Lindane; Methoxychlor; Toxaphene; 2,4-D; 2,4,5-TP Silver: in "Methods for Benzidine, Chlorinated Organic Compounds, Pentachlorophenol and Pesticides in Water and Wastewater," September 1978, U.S. Environmental Protection Agency, Environmental Monitoring and Support Laboratory, Cincinnati, Ohio 42568,

as standardized in "Test Methods for the Evaluation of Solid Waste, Physical/Chemical Methods."

For all analyses, the method of standard addition shall be used for the quantification of species concentration. This method is described in "Test Methods for the Evaluation of Solid Waste." (It is also described in "Methods for Analysis of Water and Wastes.")

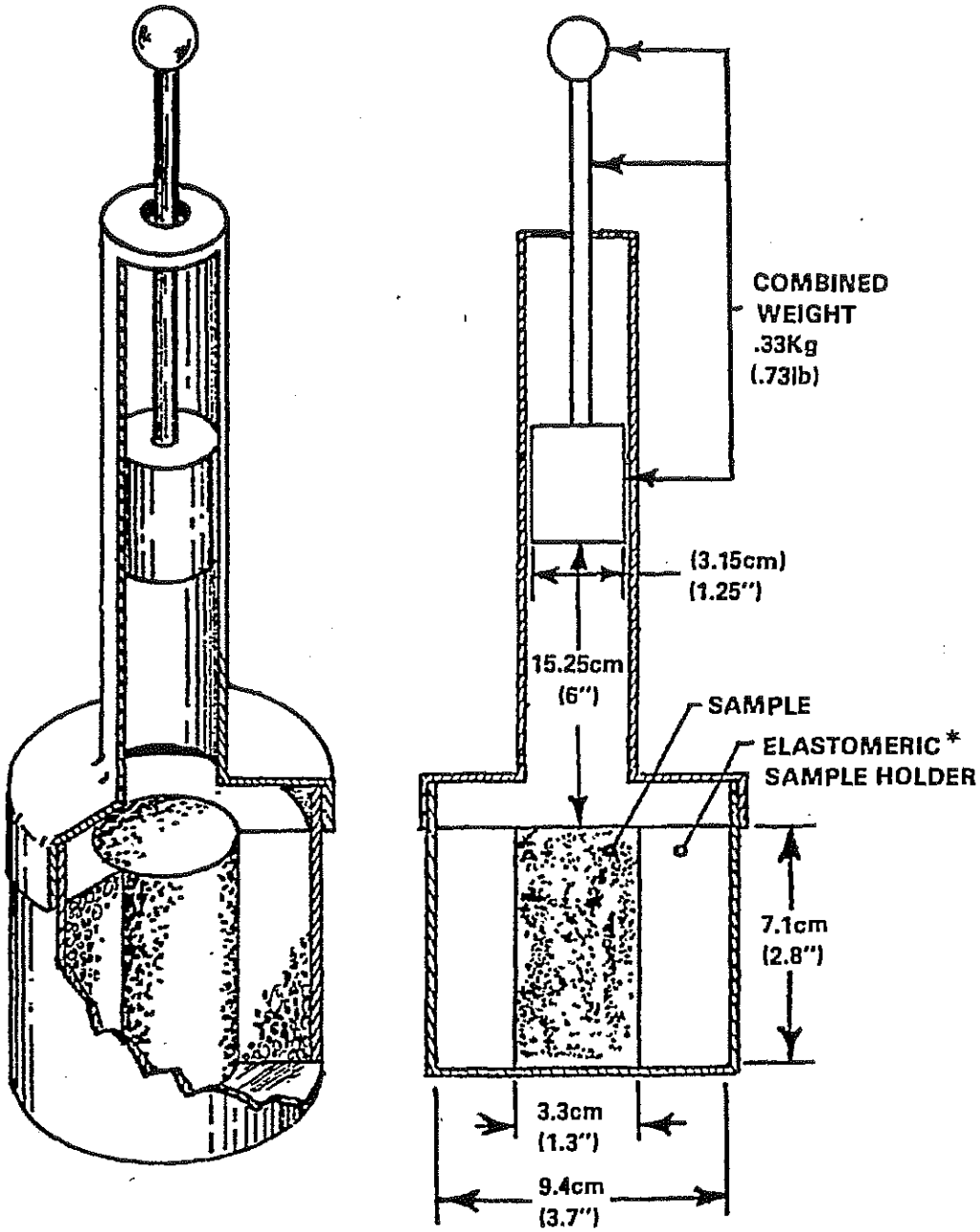
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[3] This procedure is intended to result in separation of the "free" liquid portion of the waste from any solid matter having a particle size >0.45um. If the sample will not filter, various other separation techniques can be used to aid in the filtration. As described above, pressure filtration is employed to speed up the filtration process. This does not alter the nature of the separation. If liquid does not separate during filtration, the waste can be centrifuged. If separation occurs during centrifugation the liquid portion (centrifugate) is filtered through the 0.45um filter prior to becoming mixed with the liquid portion of the waste obtained from the initial filtration. Any material that will not pass through the filter after centrifugation is considered a solid and is extracted.

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*ELASTOMERIC SAMPLE HOLDER FABRICATED OF MATERIAL FIRM ENOUGH TO SUPPORT THE SAMPLE

Figure 1

COMPACTION TESTER

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Appendix III—Chemical Analysis Test Methods

Tables 1, 2 and 3 specify the appropriate analytical procedures, described in "Test Methods for Evaluating Solid Waste" (SW–846), which should be used in determining whether the waste in question contains a given toxic constituent. Table 1 identifies the analytical class and the approved measurement techniques for each organic chemical listed in Appendix VII. Table 2 identifies the corresponding methods for the inorganic species. Table 3 identifies the specific sample preparation and measurement instrument introduction techniques which may be suitable for both the organic and inorganic species as well as the matrices of concern.

Prior to final selection of the analytical method the operator should consult the specific method descriptions in SW–846 for additional guidance on which of the approved methods should be employed for a specific waste analysis situation.

Table 1.—*Analytical Characteristics of Organic Chemicals*

Compound	Sample handling class/fraction	Non-GC methods	Measurement techniques		
			GC/MS	Conventional GC	Detector
Acetonitrile	Volatile		8.24	8.03	NSD
Acrolein	Volatile		8.24	8.03	NSD
Acrylamide	Volatile		8.24	8.01	FID
Acrylonitrile	Volatile		8.24	8.03	NSD
Benzene	Volatile		8.24	8.02	FID
Benz(a)anthracene	Extractable/BN	8.10 (HPLC)	8.25	8.10	FID
Benzo(a)pyrene	Extractable/BN	8.10 (HPLC)	8.25	8.10	FID
Benzotrichloride	Extractable/BN		8.25	8.12	ECD
Benzyl chloride	Volatile or Extractable/BN		8.24	8.01	HSD
			8.25	8.12	ECD
Benz(b)fluoranthene	Extractable/BN	8.10 (HPLC)	8.25	8.10	FID
Bis(2-chloroethoxymethane)	Volatile		8.24	8.01	HSD
Bis(2-chloroethyl)ether	Volatile		8.24	8.01	HSD
Bis(2-chloroisopropyl)ether	Volatile		8.24	8.01	HSD
Carbon disulfide	Volatile		8.24	8.01	HSD
Carbon tetrachloride	Volatile		8.24	8.01	HSD
Chlordane	Extractable/BN		8.25	8.08	HSD
Chlorinated dibenzodioxins	Extractable/BN		8.25	8.08	ECD
Chlorinated biphenyls	Extractable/BN		8.25	8.06	HSD
Chloroacetaldehyde	Volatile		8.24	8.01	HSD
Chlorobenzene	Volatile		8.24	8.01	HSD
				8.02	PID
Chloroform	Volatile		8.24	8.01	HSD
Chloromethane	Volatile		8.24	8.01	HSD
2-Chlorophenol	Extractable/BN		8.25	8.04	FID, ECD
Chrysene	Extractable/BN	8.10 (HPLC)	8.25	8.10	FID
Creosote	Extractable/BN		8.25	8.10	ECD
Cresol(s)	Extractable/A		8.25	8.04	FID, ECD
Cresylic acid(s)	Extractable/A		8.25	8.04	FID, ECD
Dichlorobenzene(s)	Extractable/BN		8.25	8.01	HSD
				8.02	PID
				8.12	ECD
Dichloroethane(s)	Volatile		8.24	8.01	HSD
Dichloromethane	Volatile		8.24	8.01	HSD
Dichlorophenoxy-acetic acid	Extractable/A		8.25	8.40	HSD
Dichloropropanol	Extractable/BN		8.25	8.12	ECD
2,4-Dimethylphenol	Extractable/A		8.25	8.04	FID, ECD
Dinitrobenzene	Extractable/BN		8.25	8.09	FID, ECD
4,6-Dinoro-o-cresol	Extractable/A		8.25	8.04	FID, ECD
2,4-Dinitrotoluene	Extractable/BN		8.25	8.09	FID, ECD
Endrin	Extractable/P		8.25	8.08	HSD
Ethyl ether	Volatile		8.24	8.01	FID
				8.02	FID
Formaldehyde	Volatile		8.24	8.01	FID
Formic acid	Extractable/BN		8.25	8.06	FID
Heptachlor	Extractable/P		8.25	8.06	HSD
Hexachlorobenzene	Extractable/BN		8.25	8.12	ECD
Hexachlorobutadiene	Extractable/BN		8.25	8.12	ECD
Hexachloroethane	Extractable/BN		8.25	8.12	ECD
Hexachlorocyclopentadiene	Extractable/BN		8.25	8.12	ECD
Lindane	Extractable/P		8.25	8.08	HSD
Maleic anhydride	Extractable/BN		8.25	8.06	ECD, FID
Methanol	Volatile		8.24	8.01	FID
Methomyl	Extractable/BN	8.32 (HPLC)			
Methyl ethyl ketone	Volatile		8.25	8.01	FID
				8.02	FID
Methyl isobutyl ketone	Volatile		8.25	8.01	FID
				8.02	FID
Naphthalene	Extractable/BN		8.25	8.10	FID
Napthoquinone	Extractable/BN		8.25	8.06	ECD, FID
				8.09	FID
Nitrobenzene	Extractable/BN		8.25	8.09	ECD, FID
4-Nitrophenol	Extractable/A		8.24	8.04	ECD, FID
Paraldehyde (trimer of acetaldehyde)	Volatile		8.24	8.01	FID

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Table 1.—*Analytical Characteristics of Organic Chemicals—Continued*

Compound	Sample handling class/fraction	Non-GC methods	Measurement techniques		
			GC/MS	Conventional GC	Detector
Pentachlorophenol	Extractable/A		8.25	8.04	ECD
Phenol	Extractable/A		8.25	8.04	ECD, FID
Phorate	Extractable/BN			8.22	FPD
Phosphorodithioic acid esters	Extractable/BN			8.06	ECD, FID
				8.09	ECD, FID
				8.22	FPD
Phthalic anhydride	Extractable/BN		8.25	8.06	ECD, FID
				8.09	ECD, FID
2-Picoline	Extractable/BN		8.25	8.06	ECD, FID
				8.09	ECD, FID
Pyridine	Extractable/BN		8.25	8.06	ECD, FID
				8.09	ECD, FID
Tetrachlorobenzene(s)	Extractable/BN		8.25	8.12	ECD
Tetrachloroethane(s)	Volatile		8.24	8.01	HSD
Tetrachloroethene	Volatile		8.24	8.01	HSD
Tetrachlorophenol	Extractable/A		8.24	8.04	ECD
Toluene	Volatile		8.24	8.02	PID
Toluenediamine	Extractable/BN		8.25		
Toluene diisocyanate(s)	Extractable/nonaqueous		8.25	8.06	FID
Toxaphene	Extractable/P		8.25	8.06	HSD
Trichloroethane	Volatile		8.24	8.01	HSD
Trichloroethene(s)	Volatile		8.24	8.01	HSD
Trichlorofluoromethane	Volatile		8.24	8.01	HSD
Trichlorophenol(s)	Extractable/A		8.25	8.04	HSD
2,4,5-TP (Silvex)	Extractable/A		8.25	8.40	HSD
Trichloropropane	Volatile		8.24	8.01	HSD
Vinyl chloride	Volatile		8.24	8.01	HSD
Vinylidene chloride	Volatile		8.24	8.01	HSD
Xylene	Volatile		8.24	8.02	PID

[1] Analyze for phenanthrene and carbazole; if these are present in a ratio between 1.4:1 and 5:1, creosote should be considered present.

ECD = Electron capture detetor; FID = Flame ionization detector; FPD = Flame photometric detector; HSD = Halide specific detector; HPLC = High pressure liquid chromotography; NSD = Nitrogen-specific detector; PID = Photoionization detector.

Table 2—*Analytical Characteristics of Inorganic Species*

Species	Sample handling class	Measurement technique	Method number
Antimony	Digestion	Atomic absorbtion-furnace/flame	8.50
Arsenic	Hydride	Atomic absorbtion-flame	8.51
Barium	Digestion	Atomic absorbtion-furnace/flame	8.52
Cadmium	Digestion	Atomic absorbtion-furnace/flame	8.53
Chromium	Digestion	Atomic absorbtion-furnace/flame	8.54
Cyanides	Hydrolysis	Atomic absorbtion-spectroscopy	8.55
Lead	Digestion	Atomic absorbtion-furnace/flame	8.56
Mercury	Cold Vapor	Atomic absorbtion	8.57
Nickel	Digestion	Atomic absorbtion-furnace/flame	8.58
Selenium	Hydride digestion	Atomic absorbtion-furnace/flame	8.59
Silver	Digestion	Atomic absorbtion-furnace/flame	8.60

Table 3.—*Sample Prepartion/Sample Introduction Techniques*

Sample handling class	Physical characteristics of waste [1]		
	Fluid	Paste	Solid
Voltile	Purge and trap.	Purge and trap.	Headspace.
	Direct injection.	Headspace	
Semivolatile and nonvolatile.	Direct injection.	Shake out	Shake out. Soxhlet. Sonication.
	Shake out		
Inorganic	Direct injection.		
	Digestion	Digestion	Digestion.
	Hydride	Hydride	Hydride.

[1] For purposes of this Table, fluid refers to readily pourable liquids, which may or may not contain suspended particles. Paste-like materials, while fluid in the sense of flowability, can be thought of as being thixotropic or plastic in nature, e.g. paints. Solid materials are those wastes which can be handled without a container (i.e., can be piled up without appreciable sagging).

Procedure and Method Number(s)

Digestion—See appropriate procedure for element of interest.
Direct injection—8.80
Headspace—8.82
Hydride—See appropriate procedure for element of interest.
Purge & Trap—8.83
Shake out—8.84
Sonication—8.85
Soxhlet—8.86

Appendix VII.—*Basis for Listing Hazardous Wastes*

EPA hazardous waste No.	Hazardous constituents for which listed
F001	tetrachloroethylene, methylene chloride trichloroethylene, 1,1,1-trichloroethane chlorinated fluorocarbons, carbon tetrachloride
F002	tetrachloroethylene, methylene chloride, trichloroethylene, 1,1,1-trichloroethane, chlorobenzene, 1,1,2-trichloro-1,2,2-trifluoroethane, o-dichlorobenzene, trichlorofluoromethane
F003	N.A.
F004	cresols and cresylic acid, nitrobenzene
F005	methanol, toluene, methyl ethyl ketone, methyl isobutyl ketone, carbon disulfide, isobutanol, pyridine
F006	cadmium, chromium, nickel, cyanide (complexed)
F007	cyanide (salts)
F008	cyanide (salts)
F009	cyanide (salts)
F010	cyanide (salts)
F011	cyanide (salts)
F012	cyanide (complexed)
F013	cyanide (complexed)
F014	cyanide (complexed)
F015	cyanide (salts)
F016	cyanide (complexed)
K001	benzene, benz(a)anthracene, benzo(a)pyrene, chrysene, 4-nitrophenol, toluene, naphthalene phenol, 2-chlorophenol, 2,4-dimethyl phenol, 2,4,6-trichlorophenol, pentachlorophenol, 4,6-dinitro-o-cresol, tetrachlorophenol
K002	chromium, lead
K003	chromium, lead
K004	chromium
K005	chromium, lead
K006	chromium
K007	cyanide (complexed), chromium
K008	chromium
K009	chloroform, formaldehyde, methylene chloride, methyl chloride, paraldehyde, formic acid
K010	chloroform, formaldehyde, methylene chloride, methyl chloride, paraldehyde, formic acid, chloroacetaldehyde
K011	acrylonitrile, acetonitrile, hydrocyanic acid
K012	acrylonitrile, acetonitrile, acrolein, acrylamide
K013	hydrocyanic acid, acrylonitrile, acetonitrile
K014	acetonitrile, acrylamide
K015	benzyl chloride, chlorobenzene, toluene, benzotrichloride
K016	hexachlorobenzene, hexachlorobutadiene, carbon tetrachloride, hexachloroethane, perchloroethylene
K017	epichlorohydrin, chloroethers [bis(chloromethyl) ether and bis (2-chloroethyl) ethers], trichloropropane, dichloropropanols
K018	1,2-dichloroethane, trichloroethylene, hexachlorobutadiene, hexachlorobenzene
K019	ethylene dichloride, 1,1,1-trichloroethane, 1,1,2-trichloroethane, tetrachloroethanes (1,1,2,2-tetrachloroethane and 1,1,1,2-tetrachloroethane), trichloroethylene, tetrachloroethylene, carbon tetrachloride, chloroform, vinyl chloride, vinylidene chloride

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Appendix VII.—*Basis for Listing Hazardous Wastes*—Continued

EPA hazardous waste No.	Hazardous constituents for which listed
K020	ethylene dichloride, 1,1,1-trichloroethane, 1,1,2-trichloroethane, tetrachloroethanes (1,1,2,2-tetrachloroethane and 1,1,1,2-tetrachloroethane), trichloroethylene, tetrachloroethylene, carbon tetrachloride, chloroform, vinyl chloride, vinylidene chloride
K021	antimony, carbon tetrachloride, chloroform
K022	phenol, tars (polycyclic aromatic hydrocarbons)
K023	phthalic anahydride, maleic anhydride
K024	phthalic anhydride, polynuclear tar-like materials, naphthoquinone
K025	meta-dinitrobenzene, 2,4-dinitrotoluene
K026	paraldehyde, pyridines, 2-picoline
K027	toulene diisocyanate, toluene-2,4-diamine, tars (benzdimidazapone)
K028	1,1,1-trichloroethane, vinyl chloride
K029	1,2-dichloroethane, 1,1,1-trichloroethane, vinyl chloride, vinlyidene chloride, chloroform
K030	hexachlorobenzene, hexachlorobutadiene, hexachloroethane, 1,1,1,2-tetrachloroethane, 1,1,2,2-tetrachloroethane, ethylene dichloride
K031	arsenic
K032	hexachlorocyclopentadiene
K033	hexachlorocyclopentadiene
K034	hexachlorocyclopentadiene
K035	creasote, benz(a)anthracene, benz(b)fluoranthene, benzo(a)pyrene
K036	toulene, phosphorodithioic and phosphorothioic acid esters
K037	toulene, phosphorodithioic and phosphorothioic acid esters
K038	phorate, formaldehyde, phosphorodithioic and phosphorothioic acid esters
K039	phosphorodithioic and phosphorothioic acid esters
K040	phorate, formaldehyde, phosphorodithioic and phosphorothioic acid esters
K041	toxaphene
K042	hexachlorobenzene; ortho-dichlorobenzene
K043	2,4-dichlorophenol, 2,6-dichlorophenol, 2,4,6-trichlorophenol
K044	N.A.
K045	N.A.
K046	lead
K047	N.A.
K048	chromium, lead
K049	chromium, lead
K050	chromium
K051	chromium, lead
K052	lead
K053	chromium
K054	chromium
K055	chromium, lead
K056	chromium, lead
K057	chromium, lead
K058	chromium, lead
K059	N.A.
K060	cyanide, naphthalene, phenolic compounds, arsenic
K061	chromium, lead, cadmium
K062	chromium, lead
K063	chromium, lead
K064	lead, cadmium
K065	lead, cadmium
K066	lead, cadmium
K067	lead, cadmium
K068	lead, cadmium
K069	chromium, lead, cadmium

N.A.—Waste is hazardous because it meets either the ignitability, corrosivity or reactivity characteristic.

Appendix VIII—Hazardous Constituents

Acetaldehyde
(Acetato)phenylmercury
Acetonitrile
3-(alpha-Acetonylbenzyl)-4-hydroxycoumarin and salts
2-Acetylaminofluorene
Acetyl chloride
1-Acetyl-2-thiourea
Acrolein
Acrylamide
Acrylonitrile
Aflatoxins
Aldrin
Allyl alcohol
Aluminum phosphide
4-Aminobiphenyl
6-Amino-1,1a,2,8,8a,8b-hexahydro-8-(hydroxymethyl)-8a-methoxy-5-methylcarbamate azirino[2',3':3,4] pyrrolo[1,2-a]indole-4,7-dione (ester) (Mitomycin C)
5-(Aminomethyl)-3-isoxazolol
4-Aminopyridine
Amitrole
Antimony and compounds, N.O.S.[1]
Aramite
Arsenic and compounds, N.O.S.
Arsenic acid
Arsenic pentoxide
Arsenic trioxide
Auramine
Azaserine
Barium and compounds, N.O.S.
Barium cyanide
Benz[c]acridine
Benz[a]anthracene
Benzene
Benzenearsonic acid
Benzenethiol
Benzidine
Benzo[a]anthracene
Benzo[b]fluoranthene
Benzo[j]fluoranthene
Benzo[a]pyrene
Benzotrichloride
Benzyl chloride
Beryllium and compounds, N.O.S.
Bis[2-chloroethoxy]methane
Bis[2-chloroethyl) ether
N,N-Bis[2-chloroethyl]-2-naphthylamine
Bis[2-chloroisopropyl) ether
Bis[chloromethyl) ether
Bis[2-ethylhexyl) phthalate
Bromoacetone
Bromomethane
4-Bromophenyl phenyl ether
Brucine
2-Butanone peroxide
Butyl benzyl phthalate
2-sec-Butyl-4,6-dinitrophenol (DNBP)
Cadmium and compounds, N.O.S.
Calcium chromate
Calcium cyanide
Carbon disulfide
Chlorambucil
Chlordane (alpha and gamma isomers)
Chlorinated benzenes, N.O.S.
Chlorinated ethane, N.O.S.
Chlorinated naphthalene, N.O.S.
Chlorinated phenol, N.O.S.
Chloroacetaldehyde
Chloroalkyl ethers
p-Chloroaniline
Chlorobenzene
Chlorobenzilate
1-(p-Chlorobenzoyl)-5-methoxy-2-methylindole-3-acetic acid
p-Chloro-m-cresol
1-Chloro-2,3-epoxybutane
2-Chloroethyl vinyl ether
Chloroform
Chloromethane
Chloromethyl methyl ether
2-Chloronaphthalene
2-Chlorophenol
1-(o-Chlorophenyl)thiourea
3-Chloropropionitrile
alpha-Chlorotoluene
Chlorotoluene, N.O.S.
Chromium and compounds, N.O.S.
Chrysene
Citrus red No. 2
Copper cyanide
Creosote
Crotonaldehyde
Cyanides (soluble salts and complexes), N.O.S.
Cyanogen
Cyanogen bromide
Cyanogen chloride
Cycasin
2-Cyclohexyl-4,6-dinitrophenol
Cyclophosphamide
Daunomycin
DDD
DDE
DDT
Diallate
Dibenz[a,h]acridine
Dibenz[a,j]acridine
Dibenz[a,h]anthracene(Dibenzo[a,h] anthracene)
7H-Dibenzo[c,g]carbazole
Dibenzo[a,e]pyrene
Dibenzo[a,h]pyrene
Dibenzo[a,i]pyrene
1,2-Dibromo-3-chloropropane
1,2-Dibromoethane
Dibromomethane
Di-n-butyl phthalate
Dichlorobenzene, N.O.S.
3,3'-Dichlorobenzidine
1,1-Dichloroethane
1,2-Dichloroethane
trans-1,2-Dichloroethane
Dichloroethylene, N.O.S.
1,1-Dichloroethylene
Dichloromethane
2,4-Dichlorophenol
2,6-Dichlorophenol
2,4-Dichlorophenoxyacetic acid (2,4-D)
Dichloropropane
Dichlorophenylarsine
1,2-Dichloropropane
Dichloropropanol, N.O.S.
Dichloropropene, N.O.S.
1,3-Dichloropropene
Dieldrin
Diepoxybutane
Diethylarsine
0,0-Diethyl-S-(2-ethylthio)ethyl ester of phosphorothioic acid
1,2-Diethylhydrazine
0,0-Diethyl-S-methylester phosphorodithioic acid
0,0-Diethylphosphoric acid, 0-p-nitrophenyl ester
Diethyl phthalate
0,0-Diethyl-0-(2-pyrazinyl)phosphorothioate
Diethylstilbestrol
Dihydrosafrole
3,4-Dihydroxy-alpha-(methylamino)-methyl benzyl alcohol
Di-isopropylfluorophosphate (DFP)
Dimethoate
3,3'-Dimethoxybenzidine
p-Dimethylaminoazobenzene
7,12-Dimethylbenz[a]anthracene
3,3'-Dimethylbenzidine
Dimethylcarbamoyl chloride

[1]The abbreviation N.O.S. signifies those members of the general class "not otherwise specified" by name in this listing.

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1,1-Dimethylhydrazine
1,2-Dimethylhydrazine
3,3-Dimethyl-1-(methylthio)-2-butanone-0-((methylamino) carbonyl)oxime
Dimethylnitrosoamine
alpha,alpha-Dimethylphenethylamine
2,4-Dimethylphenol
Dimethyl phthalate
Dimethyl sulfate
Dinitrobenzene, N.O.S.
4,6-Dinitro-o-cresol and salts
2,4-Dinitrophenol
2,4-Dinitrotoluene
2,6-Dinitrotoluene Di-n-octyl phthalate
1,4-Dioxane
1,2-Diphenylhydrazine
Di-n-propylnitrosamine
Disulfoton
2,4-Dithiobiuret
Endosulfan
Endrin and metabolites
Epichlorohydrin
Ethyl cyanide
Ethylene diamine
Ethylenebisdithiocarbamate (EBDC)
Ethyleneimine
Ethylene oxide
Ethylenethiourea
Ethyl methanesulfonate
Fluoranthene
Fluorine
2-Fluoroacetamide
Fluoroacetic acid, sodium salt
Formaldehyde
Glycidylaldehyde
Halomethane, N.O.S.
Heptachlor
Heptachlor epoxide (alpha, beta, and gamma isomers)
Hexachlorobenzene
Hexachlorobutadiene
Hexachlorocyclohexane (all isomers)
Hexachlorocyclopentadiene
Hexachloroethane
1,2,3,4,10,10-Hexachloro-1,4,4a,5,8,8a-hexahydro-1,4:5,8-endo,endo-dimethanonaphthalene
Hexachlorophene
Hexachloropropene
Hexaethyl tetraphosphate
Hydrazine
Hydrocyanic acid
Hydrogen sulfide
Indeno(1,2,3-c,d)pyrene
Iodomethane
Isocyanic acid, methyl ester
Isosafrole
Kepone
Lasiocarpine
Lead and compounds, N.O.S.
Lead acetate
Lead phosphate
Lead subacetate
Maleic anhydride
Malononitrile
Melphalan
Mercury and compounds, N.O.S.
Methapyrilene
Methomyl
2-Methylaziridine
3-Methylcholanthrene
4,4'-Methylene-bis-(2-chloroaniline)
Methyl ethyl ketone (MEK)
Methyl hydrazine
2-Methyllactonitrile
Methyl methacrylate
Methyl methanesulfonate
2-Methyl-2-(methylthio)propionaldehyde-o-(methylcarbonyl) oxime
N-Methyl-N'-nitro-N-nitrosoguanidine
Methyl parathion
Methylthiouracil
Mustard gas
Naphthalene
1,4-Naphthoquinone
1-Naphthylamine
2-Naphthylamine
1-Naphthyl-2-thiourea
Nickel and compounds, N.O.S.
Nickel carbonyl
Nickel cyanide
Nicotine and salts
Nitric oxide
p-Nitroaniline
Nitrobenzene
Nitrogen dioxide
Nitrogen mustard and hydrochloride salt
Nitrogen mustard N-oxide and hydrochloride salt
Nitrogen peroxide
Nitrogen tetroxide
Nitroglycerine
4-Nitrophenol
4-Nitroquinoline-1-oxide
Nitrosamine, N.O.S.
N-Nitrosodi-N-butylamine
N-Nitrosodiethanolamine
N-Nitrosodiethylamine
N-Nitrosodimethylamine
N-Nitrosodiphenylamine
N-Nitrosodi-N-propylamine
N-Nitroso-N-ethylurea
N-Nitrosomethylethylamine
N-Nitroso-N-methylurea
N-Nitroso-N-methylurethane
N-Nitrosomethylvinylamine
N-Nitrosomorpholine
N-Nitrosonornicotine
N-Nitrosopiperidine
N-Nitrosopyrrolidine
N-Nitrososarcosine
5-Nitro-o-toluidine
Octamethylpyrophosphoramide
Oleyl alcohol condensed with 2 moles ethylene oxide
Osmium tetroxide
7-Oxabicyclo[2.2.1]heptane-2,3-dicarboxylic acid
Parathion
Pentachlorobenzene
Pentachloroethane
Pentachloronitrobenzene (PCNB)
Pentachlorophenol
Phenacetin
Phenol
Phenyl dichloroarsine
Phenylmercury acetate
N-Phenylthiourea
Phosgene
Phosphine
Phosphorothioic acid, O,O-dimethyl ester, O-ester with N,N-dimethyl benzene sulfonamide
Phthalic acid esters, N.O.S.
Phthalic anhydride
Polychlorinated biphenyl, N.O.S.
Potassium cyanide
Potassium silver cyanide
Pronamide
1,2-Propanediol
1,3-Propane sultone
Propionitrile
Propylthiouracil
2-Propyn-1-ol
Pryidine
Reserpine
Saccharin
Safrole
Selenious acid
Selenium and compounds, N.O.S.
Selenium sulfide
Selenourea
Silver and compounds, N.O.S.
Silver cyanide
Sodium cyanide
Streptozotocin
Strontium sulfide
Strychnine and salts
1,2,4,5-Tetrachlorobenzene
2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD)
Tetrachloroethane, N.O.S.
1,1,1,2-Tetrachloroethane
1,1,2,2-Tetrachloroethane
Tetrachloroethene (Tetrachloroethylene)
Tetrachloromethane
2,3,4,6-Tetrachlorophenol
Tetraethyldithiopyrophosphate
Tetraethyl lead
Tetraethylpyrophosphate
Thallium and compounds, N.O.S.
Thallic oxide
Thallium (I) acetate
Thallium (I) carbonate
Thallium (I) chloride
Thallium (I) nitrate
Thallium selenite
Thallium (I) sulfate
Thioacetamide
Thiosemicarbazide
Thiourea
Thiuram
Toluene
Toluene diamine
o-Toluidine hydrochloride
Tolylene diisocyanate
Toxaphene
Tribromomethane
1,2,4-Trichlorobenzene
1,1,1-Trichloroethane
1,1,2-Trichloroethane
Trichloroethene (Trichloroethylene)
Trichloromethanethiol
2,4,5-Trichlorophenol
2,4,6-Trichlorophenol
2,4,5-Trichlorophenoxyacetic acid (2,4,5-T)
2,4,5-Trichlorophenoxypropionic acid (2,4,5-TP) (Silvex)
Trichloropropane, N.O.S.
1,2,3-Trichloropropane
0,0,0-Triethyl phosphorothioate
Trinitrobenzene
Tris(1-azridinyl)phosphine sulfide
Tris(2,3-dibromopropyl) phosphate
Trypan blue
Uracil mustard
Urethane
Vanadic acid, ammonium salt
Vanadium pentoxide (dust)
Vinyl chloride
Vinylidene chloride
Zinc cyanide
Zinc phosphide

[FR Doc. 80-14307 Filed 5-16-80; 8:45 am]
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Federal Register

Monday
May 19, 1980

Part IV

Environmental Protection Agency

Hazardous Waste Management System

Proposal To Modify 40 CFR Part 261—Hazardous Waste Lists

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ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 261

[FRL 1471-4]

Identification and Listing of Hazardous Wastes

AGENCY: Environmental Protection Agency.

ACTION: Proposed rule.

SUMMARY: The Environmental Protection Agency (EPA) is proposing to add eleven wastes to the interim final list of hazardous wastes which it is promulgating today under Section 3001 of the Resource Conservation and Recovery Act of 1976, as amended (RCRA). The effect of adding these wastes to the hazardous waste list will be to make them subject to the management standards issued by EPA under Sections 3002 through 3006 and 3010 of RCRA (Parts 262 through 265, 122 through 124 of this Chapter and 45 FR 12746).

DATES: EPA will accept public comments on the proposed listings until July 18, 1980. Any person may request a hearing on this proposal by filing a request with John P. Lehman, whose address appears below, by June 9, 1980. The request must contain the information prescribed in § 260.20(d) of this chapter.

ADDRESSES: Comments and requests for hearing should be addressed to John P. Lehman, Director, Hazardous and Industrial Waste Division, Office of Solid Waste [WH-565], U.S. Environmental Protection Agency, Washington, D.C. 20460. Communications should identify the regulatory docket number "Section 3001."

The public docket for this proposed rulemaking is located in Room 2711, U.S. Environmental Protection Agency, 401 M Street, S.W., Washington, D.C. 20460 and is available for viewing from 9:00 a.m. to 4:00 p.m., Monday through Friday, excluding holidays.

FOR FURTHER INFORMATION CONTACT: Alan S. Corson, Office of Solid Waste (WH-565), U.S. Environmental Protection Agency, 401 M Street, S.W., Washington, D.C. 20460, (202) 755-9187.

SUPPLEMENTARY INFORMATION: Section 3001 of RCRA requires EPA to publish criteria for listing hazardous waste and to list particular hazardous wastes. In today's Federal Register EPA is promulgating interim final criteria for listing hazardous wastes (§ 261.11) along with an interim final list of hazardous wastes (Part 261, Subpart D). The Agency is now proposing to expand this list of hazardous wastes to add eleven wastes which EPA has determined meet its interim final listing criteria.

Included in this proposed supplemental listing are five wastes generated in the organic chemicals industry, four wastes from the manufacture of pesticides, one waste stream from the wood preserving industry and one waste stream from the non-ferrous metals industry. All eleven of these wastes were identified by the Agency in the course of developing the necessary technical data to support the interim final hazardous waste list promulgated today. These wastes and the hazards they pose to health or the environment are:

(1) *Distillation bottoms and heavy ends from the production of 1,1,1-trichloroethane.* These two wastes contain known carcinogens, many of which are soluble in water or are volatile. If the waste is improperly managed, the carcinogens may contaminate surface water, groundwater, or air.

(2) *Vacuum stripper discharge from chlordene chlorinator in the production of chlordane.* This waste contains dissolved or suspended highly toxic constituents which are soluble and may migrate through leaching from the waste if the waste is improperly managed.

(3) *Untreated wastewater from the production of 2,4-D.* This waste contains carcinogens and mutagens which are soluble in water. If the waste is improperly managed, these constituents can contaminate surface water or groundwater.

(4) *Wastewater from the production of methomyl.* This waste contains toxic compounds, a carcinogen and mutagenic substances. If this waste is improperly managed, these compounds could migrate from the waste and contaminate groundwater and surface water.

(5) *Distillation residues both light ends and bottoms from the production of phthalic anyhride from ortho-xylene.* These two wastes contain toxic compounds, a known carcinogen, and a suspected carcinogen. Some of these compounds are soluble in water, and, if the waste is improperly managed, these compounds can contaminate surface water and groundwater. If the residues are improperly incinerated, these compounds (or equally or more toxic degradation products) may be emitted into the air.

(6) *Wastewater from wood preserving processes that use creosote and/or pentachlorophenol.* This waste contains carcinogens, mutagens and toxic compounds, many of which are soluble in water or are volatile. If the waste is improperly managed, these compounds can contaminate surface water, groundwater, or air.

(7) *Untreated process wastewater from the production of toxaphene.* This waste contains toxaphene, a carcinogenic and extremely toxic compound. If the waste is improperly managed, this compound could migrate from the waste and contaminate groundwater and surface water.

(8) *Process wastewater from creosote production.* This waste contains a number of known carcinogens. If this waste is improperly managed, these compounds are capable of migrating and persisting in the environment and could contaminate surface water and groundwater.

(9) *Waste leaching solution from acid leaching of emission control dust/sludge from secondary lead smelting.* This waste contains toxic heavy metals which, when solubilized, can contaminate surface water and groundwater if the waste is improperly managed.

When surface water, groundwater, or air is contaminated, human health or the environment can be adversely affected.

BACKGROUND DOCUMENT: Background documents have been prepared in support of this proposed rule. Copies are available for review in all EPA Regional office libraries, in the EPA headquarters [Public Information Reference Unit] Room 2404, Waterside Mall, 401 M Street, S.W., Washington, D.C. and in the docket located in Room 2711, Waterside Mall, 401 M Street, S.W., Washington, D.C.

ECONOMIC, ENVIRONMENTAL AND REGULATORY IMPACTS: In accordance with Executive Order 11821, as amended by Executive Order 11949, and OMB Circular A-107, EPA policy as stipulated in 39 FR 37419, October 21, 1974, and Executive Order 12044, analyses of the economic, environmental, and regulatory impacts were performed for the entirety of Subtitle C. EPA does not believe that amending Part 261 to add these additional wastes is a major action for the purposes of Executive Order 12044, in part because the wastes are generated by processes which produce other listed wastes and because the cost of managing those other listed wastes has already been accounted for in the final Regulatory Analysis which was prepared for the entirety of Subtitle C. However, EPA requests that any data commenters have on the generation rates of the wastes listed in the proposal, current management costs and practices for these wastes or on the cost or economic impacts of the proposed

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regulations be sent to John P. Lehman at the address listed above.

Dated: May 2, 1980.

Douglas M. Costle,

Administrator.

It is proposed to amend Title 40 CFR, Part 261, by revising 40 CFR, Part 261, as follows:

§ 261.32 [Amended]

1. In § 261.32, add the following waste streams:

Industry	EPA hazardous waste No.*	Hazardous waste	Hazardous code
Wood preservation.		Wastewater from wood preserving processes that use creosote or pentachlorophenol.	(T).
Organic chemicals.		Distillation bottoms from the production of 1,1,1-trichloroethane.	(T).
		Heavy ends from the heavy ends column from the production of 1,1,1-trichloroethane.	(T).
		Vacuum stripper discharge from chlordane chlorinator in the production of chlordane.	
		Distillation light ends from the production of phthalic anhydride from ortho-xylene.	(T).
		Distillation bottoms from the production of phthalic anhydride from ortho-xylene.	(T).
Pesticides.....		Untreated process wastewater from the production of toxaphene.	(T).
		Untreated wastewater from the production of 2,4-D.	(T).
		Wastewater from the production of methomyl.	(T).
		Process wastewater from creosote production.	(T).
Secondary lead.		Waste leaching solution from acid leaching of emission control dust/sludge from secondary lead smelting.	(T).

*The EPA Hazardous Waste Number will not be assigned until the listed waste is promulgated.

[FR Doc. 80-14308 Filed 5-16-80; 8:45 am]

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Part XI

Environmental Protection Agency

Hazardous Waste Management System: Identification and Listing of Hazardous Waste, and Interim Status Standards for Owners and Operators of Treatment, Storage, and Disposal Facilities; Final, Interim, and Proposed Regulations

EXHIBIT
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ENVIRONMENTAL PROTECTION AGENCY

40 CFR Parts 260 and 261

[SW FRL 1642-4]

Hazardous Waste Management System; General and Identification and Listing of Hazardous Waste

AGENCY: Environmental Protection Agency.

ACTION: Interim final amendment to rule and request for comments.

SUMMARY: This regulation amends 40 CFR 261.4 to provide that a hazardous waste that is generated in a product or raw material storage tank, transport vehicle or vessel or in a manufacturing process unit is not subject to regulation under 40 CFR Parts 262 through 265 or Parts 122 through 124 or the requirements of Section 3010 of the Resource Conservation and Recovery Act (RCRA) until it is removed from the unit in which it was generated, unless the unit in which it is generated is a surface impoundment or unless the hazardous waste remains in the unit for more than 90 days after the unit ceases to be operated for the purpose of storing or transporting product or raw materials or manufacturing. This regulation also amends 40 CFR 260.10 to modify the definition of "generator" so that it clearly covers persons who remove hazardous wastes from product or raw material storage tanks, transport vehicles or vessels, or manufacturing process units in which the hazardous waste is generated. Finally, this regulation amends 40 CFR 260.10 to add definitions for "transport vehicle" and "vessel." The purpose of this requirement is to allow persons handling hazardous wastes sufficient lead time to prepare to comply with major new regulatory requirements. The effect of these amendments is to reduce the overall costs, economic impact and reporting and recordkeeping impacts of EPA's hazardous waste management regulations.

DATES: Effective Date: For the amendment to 40 CFR 261.4 and the definitions of "transport vehicle" and "vessel," in 40 CFR 260.10, November 19, 1980.

For the amendment to the definition of "generator," in 40 CFR 260.10, April 30, 1981.

Comment Date: This amendment is promulgated as an interim final rule. The Agency will accept comments on it until December 29, 1980.

ADDRESSES: Comments on the amendment should be sent to Docket Clerk [Docket No. 3001], Office of Solid Waste (WH-565), U.S. Environmental Protection Agency, 401 M Street, SW., Washington, D.C. 20460.

FOR FURTHER INFORMATION CONTACT: For general information, contact Alfred W. Lindsey, Office of Solid Waste, U.S. Environmental Protection Agency, 401 M Street, SW., Washington, D.C. 20460, (202) 755-9185. For information on implementation, contact:

Region I, Dennis Huebner, Chief, Radiation, Waste Management Branch, John F. Kennedy Building, Boston, Massachusetts 02203, (617) 223-5777

Region II, Dr. Ernest Regna, Chief, Solid Waste Branch, 26 Federal Plaza, New York, New York 10007, (212) 264-0504/5

Region III, Robert L. Allen, Chief, Hazardous Materials Branch, 6th and Walnut Streets, Philadelphia, Pennsylvania 19106, (215) 597-0980

Region IV, James Scarbrough, Chief, Residuals Management Branch, 345 Courtland Street, N.E., Atlanta, Georgia 30365, (404) 881-3016

Region V, Karl J. Klepitsch, Jr., Chief, Waste Management Branch, 230 South Dearborn Street, Chicago, Illinois 60604, (312) 886-6148

Region VI, R. Stan Jorgensen, Acting Chief, Solid Waste Branch, 1201 Elm Street, First International Building, Dallas, Texas 75270, (214) 787-2645

Region VII, Robert L. Morby, Chief, Hazardous Materials Branch, 324 E. 11th Street, Kansas City, Missouri 64106, (816) 374-3307

Region VIII, Lawrence P. Gazda, Chief, Waste Management Branch, 1860 Lincoln Street, Denver, Colorado 80203, (303) 837-2221

Region IX, Arnold R. Den, Chief, Hazardous Materials Branch, 215 Fremont Street, San Francisco, California 94105, (415) 556-4606

Region X, Kenneth D. Feigner, Chief, Waste Management Branch, 1200 Sixth Avenue, Seattle, Washington 98101, (206) 442-1260.

SUPPLEMENTARY INFORMATION:

I. Amendment to 40 CFR 261.4

On February 26 and May 19, 1980, EPA promulgated hazardous waste regulations in 40 CFR Parts 260 through 265 (45 FR 12721 et seq. and 45 FR 33066 et seq.) and on May 19, 1980, promulgated consolidated permit regulations in 40 CFR Parts 122 through 124 (45 FR 33289 et seq.). Section 261.2 of these regulations provides that a solid waste is any garbage, refuse or sludge; or any other waste material which is (1) discarded or is being accumulated, stored or physically, chemically or biologically treated prior to being discarded; or (2) has served its original intended use and sometimes is discarded; or (3) is a manufacturing or mining by-product and sometimes is discarded. Section 261.3 provides that a solid waste becomes a hazardous waste when (1) it first meets any of the listing descriptions set forth in Part 261, Subpart D; or (2) it first becomes a mixture containing a hazardous waste listed in Part 261, Subpart D; or (3) it first exhibits one or more of the characteristics of hazardous waste identified in Part 261, Subpart C. Section 261.1 provides that hazardous wastes identified in Part 261 are subject to regulation under Parts 262 through 265 and Parts 122 through 124. The effect of these provisions, particularly § 261.3(b), is to make hazardous wastes subject to regulation at the point where they are generated. The point of generation, however, may be a product or raw material storage tank, transport vehicle or vessel, or a manufacturing process unit. A literal application of the Part 261 regulations would mean that such units are hazardous waste storage facilities, and that their owners and operators must comply with the notification requirements of Section 3010 of RCRA, submit applications for and obtain permits under Part 122 and comply with the Interim Status Standards of Part 265 until a permit is issued or denied. An exception to these requirements is provided in § 262.34 which states that hazardous waste may be accumulated on the site of its generation without a permit for 90 days or less before it is removed and transported off-site for treatment, storage or disposal. For such accumulation, the owner and operator of the unit must notify under Section 3010 and comply with § 262.34, including requirements for containerization, labelling, marking, inspection and personnel training.

Many members of the regulated community have questioned the Agency's intent and wisdom in regulating those units in which hazardous wastes are first generated. These people claim that such units only incidentally hold or treat hazardous wastes and thus should not be subject to the regulations. They contend that such hazardous wastes do not pose a hazard to human health or the environment while they remain in these units.

Commenters on this issue provided several examples of units in which hazardous wastes are generated which currently appear to be, perhaps, unnecessarily, subject to the regulations.

The bulk storage of crude oil and even refined petroleum products, such as gasoline, frequently produces a sludge or sediment that periodically must be removed. These sludges and sediments are solid wastes under § 261.2 and frequently may be hazardous wastes either because they are listed (see EPA Hazardous Waste Number K052 in § 261.32) or because they exhibit one or more of the characteristics of hazardous wastes identified in Part 261, Subpart C. The generation of sludges and residues that are hazardous wastes also can occur in the storage of other products and raw materials.

Similarly, sludges and residues are frequently produced in tank trucks, rail tank cars and the tanks or holds of ships and barges that have carried products or raw materials (which are not hazardous wastes). These sludges and residues are periodically removed through washing of the tanks of these transport vehicles and vessels. They are solid wastes and occasionally are hazardous wastes for the same reasons stated above. Where these sludges and residues are hazardous wastes, these vehicles and vessels technically are hazardous waste storage facilities subject to regulation prior to the removal of the hazardous waste.

Other examples occur in a great many manufacturing processes, where hazardous wastes are generated in process units, such as distillation columns, flotation units, and discharge trays of screens and in associated non-waste-treatment process units such as cooling towers. Many of these hazardous wastes are listed in §§ 261.31 and 261.32 (*e.g.*, EPA Hazardous Waste Numbers K009 and K010 in § 261.32). Others are hazardous wastes because they exhibit one or more characteristics of hazardous wastes (*see* 40 CFR Part 261, Subpart C). These hazardous wastes reside in these process units for some period of time—sometimes only minutes, other times for hours or days—and technically cause these units to be hazardous waste storage facilities subject to regulation.

Except for surface impoundments, and non-operating units, EPA did not intend to regulate product and raw material storage tanks, transport vehicles and vessels or manufacturing process units in which hazardous wastes are generated. As represented by the above examples, most of these units are tanks or tank-like units (*e.g.*, distillation units) which are designed and operated to hold valuable products or raw materials in storage or transportation or during manufacturing. Because of their design and operation, these units are capable of holding, and are typically operated to hold, the hazardous wastes which are generated in them, until the wastes are purposefully removed. Thus, these hazardous wastes are contained against release into the environment (except, of course, when abnormal circumstances such as fire or explosion occur) and the risks they pose to human health or the environment are very low and are only incidental to the risks posed by the valuable product or raw material with which they are associated. Based on these conclusions, EPA believes it is not necessary, except as noted below, to require owners and operators of these units to obtain permits for these units or to comply with the requirements of § 262.34 or Parts 264 or 265 with respect to these units.

Except where the unit is a surface impoundment or is not operating, as discussed below, the Agency believes that the hazardous waste generated in such a unit should only be subject to regulation when it is removed from the unit. In most cases, it is only after the removal of hazardous wastes from these units that the wastes have the potential for releasing hazardous constituents into the environment and posing a substantial hazard to human health or the environment.

As one exception to the foregoing, EPA does not believe that surface impoundments in which hazardous wastes are generated should be exempted from the regulations. These units, by definition (see 40 CFR 260.10), are formed in or constructed of earthen materials and often may not be lined with impermeable materials capable of preventing leaching. Any hazardous wastes generated and accumulated or stored in these units will have a much greater potential to leach, leak or otherwise escape from these units into the environment than those hazardous wastes generated and contained in the tanks and tank-like units discussed above. Because of this greater potential for release into the environment, the Agency believes that the hazardous wastes generated in surface impoundments may pose a substantial hazard to human health or the environment and therefore warrant regulation even while they remain in the impoundment. Such regulation will ensure that the impoundment is properly constructed, lined, inspected and operated, and that groundwater monitoring is performed.

As a second exception to the foregoing, EPA does not believe that hazardous wastes generated in manufacturing process units, or product or raw material storage tanks, transport vehicles or vessels should be exempted from regulation when these wastes remain in the units after they have ceased to be operated for the primary purpose of manufacturing or product or raw materials storage or transportation. EPA believes that when operation ceases, the incentive to maintain the integrity of the unit to prevent leaks or other unintended release of products, raw materials or manufacturing intermediates into the environment is substantially reduced. Consequently, the incentive to maintain the unit to prevent leaks or release of hazardous wastes which may remain in the unit after cessation of operation would also be substantially reduced. As stated above, the rationale for exempting hazardous waste from regulation while it remains in the unit in which it was generated is that the unit will have structural integrity against releases and will be operated to prevent such releases. The Agency believes that this rationale does not hold after cessation of operation.

EPA recognizes that manufacturing units and product and raw material storage tanks, transport vehicles and vessels are occasionally taken out of operation for temporary periods that may range from days, to months, and sometimes years, because of temporary declines in business or other business reasons. Units may also be taken out of operation for maintenance or repair. During these temporary shutdowns, hazardous wastes may remain in these units. The Agency also recognizes that these units may be permanently taken out of operation and hazardous wastes may remain in them for some period of time after shutdown. For both temporary and permanent shutdowns, the Agency will allow a reasonable time to remove any hazardous wastes that remain in the unit after operation ceases. Given the presumption that the unit has integrity before cessation of operation, the Agency believes that a reasonable time is 90 days. This time also is consistent with the 90-day accumulation period allowed under § 262.34. If hazardous wastes remain in these units more than 90 days after cessation of operation, EPA believes that these wastes should be fully regulated and that the units should be regulated as hazardous waste storage facilities. Thus, at that point, the owner and operator of the Unit would have to have interim status and comply with the Interim Status Standards of Part 265 or have a permit under Part 122 and comply with permit conditions.

Based on the foregoing assessment, EPA, in this rulemaking action, is amending the regulations by adding an exclusion provision to § 261.4 which

provides that a hazardous waste which is generated in a manufacturing process unit or an associated non-waste treatment unit, or in a product or raw material storage tank, transport vehicle or vessel is not subject to regulation under Parts 262 through 265 or Parts 122 through 124 or the notification requirements of Section 3010 of RCRA until it is removed from the unit in which it is generated, unless the unit is a surface impoundment or unless the hazardous waste remains in the unit for more than 90 days after the unit ceases to be operated for the purpose of manufacturing, or storing or transporting product or raw materials.

II. Definition of Transport Vehicle and Vessel

As indicated in the above discussion, this amendment deals with hazardous wastes that are generated in product or raw material transport vehicles and vessels, as well as those generated in manufacturing units and product or raw material storage tanks. Because the terms "transport vehicle" and "vessel" are not currently defined in § 260.10, definitions of these terms are included in this amendment. These definitions are the same as those in the Department of Transportation regulations governing the transportation of hazardous materials (see 49 CFR 171.8).

III. Generator Responsibilities and Amendment to 40 CFR 260.10

Many members of the regulated community also have asked the question: Who is the generator of hazardous wastes that are generated in manufacturing process units or in product or raw material storage tanks, transport vehicles or vessels? These persons point out that, with respect to stationary product and raw material storage tanks, it is quite common for one person to own and operate the storage tank, a second person to own the product or raw material being stored, and a third person (usually under contract to either the first or second person) to remove and dispose of sludges, sediments and residues that may have been formed in the tank. It also is common for the owner and operator of the tank to also own the stored product or raw material, but to hire another person to remove and dispose of sediments and residues formed in the tanks. There are situations, of course, where the three parties are one person, or where more than three parties are involved.

The same scenarios occur with respect to tank trucks, rail cars, and ships and barges. However, these scenarios are commonly complicated by two additional practices. Oftentimes these transport vehicles or vessels are taken to a central facility for removal of sediment and residues and attendant tank washing or cleaning. Frequently, this central facility is owned or operated by a person other than the owner or operator of the vehicle or vessel and, even more frequently, other than the owner of the product or raw material that produced the sediment or residue. Secondly, the residue or sediment cleaned and removed from a vehicle or vessel may have been produced by two or more products, thus bringing into the picture additional parties—the owners of two or more products. This situation can also occur, but is less common, with stationary storage tanks.

With respect to manufacturing units, the situation typically is not complicated. Usually, the same person owns and operates the unit, owns the manufacturing materials that may generate a hazardous waste and removes any hazardous wastes generated in the unit. However, there are situations where two or more parties are involved. One such situation is where a second party is periodically retained to clean a unit. Another situation is where the hazardous waste is produced by the processing of materials that are owned by two or more persons. This occurs in the reclaiming of spent solvents and spent catalysts where the reclaimer custom-processes batches of spent material without taking ownership of the material.

The definition of "generator" in § 260.10 is "any person, by site, whose act or process produces hazardous waste identified or listed in Part 261 * * *." This definition suggests that the operator of a manufacturing process unit or a product or raw material storage tank, transport vehicle or vessel is a generator of a hazardous waste because it is his "act" of storage or transportation or his "process" of manufacturing that produces the hazardous waste. In the case of storage or transportation, the act of holding the product or raw material enables settling of heavy fractions of material to create hazardous waste sludges or sediments and enables hazardous waste residues to adhere to the tank. In the case of manufacturing processes, the process of manufacturing produces the hazardous wastes.

The owner of the product or raw material being stored or transported and the owner of the materials being manufactured also fit the definition of "generator" of the hazardous waste because their "acts" cause the product or material to be stored, transported or manufactured which leads to the generation of the hazardous wastes. Additionally, it is constituents in their product or material that "produce" a hazardous waste.

The definition of generator, particularly when read in conjunction with the amendment discussed above, also fits the person removing the hazardous waste from a manufacturing process unit or a product or raw material storage tank, transport vehicle or vessel. Although often it is not his "act or process" that produces the hazardous waste, it is his act that causes the hazardous waste to become subject to regulation (except where it is generated in a surface impoundment or remains in a non-operating unit for more than 90 days after cessation of operation).

The definition of generator, depending on the particular factual situation, can include all of the parties discussed above. Both the operator of a manufacturing process unit, or a product or raw material storage tank, transport vehicle or vessel, and the owner of the product or raw material act jointly to produce the hazardous waste generated therein, and the person who removes the hazardous waste from a tank, vehicle, vessel or manufacturing process unit subjects it to regulation. All three parties are involved and EPA believes that all three (and any others who fit the definition of "generator") have the responsibilities of a generator.

Because all three parties contribute to the generation of a hazardous waste and because none of the parties stands out in all cases as the predominant contributor, the Agency has concluded that the three parties should be jointly and severally liable as generators. The Agency will, of course, be satisfied if one of the three parties assumes and performs the duties of the generator on behalf of all of the parties. In fact, the Agency prefers and encourages such action and recommends that, where two or more parties are involved, they should mutually agree to have one party perform the generator duties. Where this is done, the Agency will look to that designated party to perform the generator responsibilities. Nevertheless, EPA reserves the right to enforce against any and all persons who fit the definition of "generator" in a particular case if the requirements of Part 262 are not adequately met, providing such enforcement is equitable and in the public interest.

Given this conclusion, the Agency believes it has an obligation to give guidance to the regulated community on who it prefers to assume the generator

responsibilities and to whom it will initially look to perform the generator duties where more than one party is involved and where EPA does not know which party, by mutual agreement, is appointed to carry out the generator duties, or where no party has been so designated. In the case of hazardous wastes generated in a stationary product or raw material storage tank, EPA will initially look to the operator of the tank to perform the generator responsibilities. EPA believes that this party is in the best position to perform the generator responsibilities. The operator typically is on-site and can determine when a tank contains sludges or residues that may be hazardous wastes. He certainly knows or ought to know when these sludges and residues are being removed and, therefore, when they become subject to regulation, if they are a hazardous waste. Because he is typically on-site, he is in a good position to carry out those duties of a generator which practically must be performed on-site. These include determining whether a hazardous waste exists (§ 262.11), initiating a manifest for off-site shipment (Part 262, Subpart B) and performing the pre-transportation requirements of packaging, labeling and marking (Part 262, Subpart C).

For hazardous wastes generated in a manufacturing process unit, EPA will initially look to the operator of the unit to fulfill the generator duties for the same reasons described above.

For hazardous wastes generated in a product or raw material transport vehicle or vessel which are removed at a central facility which is operated to remove sediments and residues from such vehicles or vessels, the Agency will initially look to the operator of the central facility to perform the generator duties. Following the reasoning outlined above, the Agency believes that the operator of a central facility is the party best able to perform the generator duties. Where hazardous wastes generated in product or raw material transport vehicles or vessels are *not* removed at a central facility, the Agency will look to the operator of the vehicle or vessel to perform the generator duties.

As discussed above, the person who removes hazardous waste from a manufacturing process unit or a product or raw materials storage tank, transport vehicle or vessel will be jointly and severally liable, along with the owner and operator of the tank, vehicle, vessel or unit and the owner of the product or raw material, as a generator. To clarify that such persons are included in the definition of generator, the Agency, in this rulemaking action, is amending the definition of "generator" in § 260.10 by adding a final clause so that the definition reads "* * * any person, by site, whose act or process produces a hazardous waste identified or listed in Part 261 of this Chapter or whose act first causes a hazardous waste to become subject to regulation."

IV. Accumulation of Hazardous Wastes

A number of questions have been asked about whether the hazardous wastes removed from product or raw material storage tanks, transport vehicles or vessels or manufacturing process units can be accumulated on-site without a permit for up to 90 days after removal and prior to off-site transport in accordance with § 262.34. Because today's amendment to §261.4 subjects such hazardous wastes to regulation only after they are removed from such tanks, vehicles, vessels or units and because there often will be a need to accumulate the removed wastes until a sufficient quantity can be obtained for off-site transport, the Agency believes that the 90-day accumulation provisions of §262.34 should be available to the generators of these hazardous wastes, except where these wastes are generated in a surface impoundment or the wastes remain in the unit more than 90 days following cessation of operation of the unit.

This allowance of 90-day accumulation without a permit is available to any of the persons who are generators, even though the party accumulating the waste on-site may not own or operate the site. This allowance only applies where the accumulation occurs on the site where the removal of hazardous waste from the tank, vehicle, vessel or unit takes place; all of the other conditions and requirements of § 262.34 must, of course, be met. The 90-day accumulation period starts when the hazardous waste is removed from the tank, vehicle, vessel or unit, except in the case where a tank, vehicle, vessel or unit ceases to be operated for its primary purpose, in which case the period starts when operation ceases.

V. Notification and EPA Identification Number Requirements

A number of questions have been asked about how the notification requirements of Section 3010 of RCRA and the EPA Identification Number requirements of §262.12 apply to generators of hazardous wastes generated in manufacturing process units or product or raw material storage tanks, transport vehicles or vessels. Today's amendment to §261.4 provides that such wastes (not including those generated in surface impoundments or retained for more than 90 days in non-operating units) are not subject to regulation, including section 3010 notification, until they exit the units in which they are generated. Thus, only those wastes that are removed during a future notification period are subject to notification.

Section 262.12, though, requires that a generator must not treat, store, dispose of, transport or offer for transportation a hazardous waste without having an EPA Identification Number. Section 260.10 defines a "generator" to be a person "by site" who generates wastes. Therefore a generator must have a separate EPA Identification Number for each site at which he generates hazardous wastes. Where two or more persons are generators, as discussed above, the person who performs the duties of a generator must have and use an EPA Identification Number for the site at which hazardous wastes are removed from a tank, vehicle, vessel or unit. Thus, if the operator of the tank, vehicle, vessel or unit performs the generator duties, he must have an EPA Identification Number for the facility and can use that number with respect to the management of all of his hazardous waste generated at that facility. If the owner of the product or raw material performs the duties of the generator, he must have and use an EPA Identification Number for the site at which the hazardous waste is generated; if he owns products being stored or processed at several sites, he must have and use a separate EPA Identification Number for each site. If the person who removes hazardous wastes from tanks or units performs the generator duties, he must have a separate EPA Identification Number for each site at which he performs these duties.

VI. Effective Date

Section 3010(b) of RCRA provides that EPA's hazardous waste regulations and revisions thereto take effect six months after their promulgation. The purpose of this requirement is to allow persons handling hazardous wastes sufficient lead time to prepare to comply with major new regulatory requirements. For the amendment to § 261.4 promulgated today, however, the Agency believes, that an effective date six months after promulgation would cause substantial and unnecessary disruption in the implementation of the regulations and would be counterproductive for the regulated community and the public. The regulatory provisions that these amendments modify take effect on November 19, 1980. In the absence of the effectuation of these amendments,

operators of a large number of product and raw material storage tanks, transport vehicles and vessels, and manufacturing process units in which hazardous wastes are generated would have to prepare to operate these facilities as hazardous waste storage facilities on and after November 19, 1980. This would involve preparation and submission of a Part A permit application, preparation of a contingency plan and implementation of a number of administrative and operational practices required by Part 265 for hazardous waste storage facilities. The Agency believes it makes little sense to allow these requirements promulgated on May 19 to become effective on November 19, 1980, and then have them substantially modified on a subsequent date, i.e., the six-month effective date for these amendments.

The amendment to § 261.4 in effect suspends regulation of certain facilities by clarifying when certain hazardous wastes are first subject to the hazardous waste regulations. This lessening of regulatory requirements surely is not the type of revision to regulations that Congress had in mind when it provided a six-month delay between the promulgation and the effective date of revisions to regulations. Consequently, the Agency is setting an effective date of November 19, 1980, for the amendment to § 261.4 promulgated in this rulemaking action.

The definitions of "transport vehicle" and "vessel" are necessary for an understanding of the amendment to § 261.4 and consequently they too have an effective date of November 19, 1980.

EPA is making the amendment to the definition of "generator" effective six months after promulgation, as provided in Section 3010(b) of RCRA. Although many persons who remove hazardous wastes from manufacturing units or from product or raw material storage tanks, vehicles or vessels, recognized that in certain situations they fell within the May 19, 1980, definition of generators, the amendment to the definition will probably make some additional persons generators. These people undoubtedly deserve the six month lead time that Congress provided in Section 3010(b). All persons who fit the May 19 definition of "generator" must comply with all applicable generator requirements on November 19, 1980. Only those persons who are made generators by today's amendment to the definition have an additional six months before they must comply with Part 262 requirements.

VII. Regulatory Impacts

The effect of these amendments is to reduce the overall costs, economic impact and reporting and recordkeeping impacts of EPA's hazardous waste management regulations. This is achieved by removing from regulation as storage facilities product and raw materials storage tanks, transport vehicles and vessels, and manufacturing process units that generate hazardous waste. The Agency is unable to estimate these cost and impact reductions because it does not have an estimate of the number of such tanks and units that otherwise would be regulated. For the reasons already discussed, notwithstanding these cost and impact reductions, the Agency believes that human health and environmental protection will not be reduced by this action.

VIII. Request for Comments

The Agency invites comments on all aspects of these amendments and on all of the issues discussed in this preamble, including the interpretation of "generator," the allowance of 90-day accumulation to all generators, and the notification and EPA Identification Number requirements. EPA is providing a 60-day comment period.

The Agency also invites comments on whether the amendment should also apply to hazardous wastes generated in product or raw material containers other than transportation vehicles and vessels (see § 260.10 for definition of the term "containers"). The Agency has not applied this amendment to such hazardous wastes because it is not aware that significant amounts of hazardous wastes are generated in product or raw material containers (exclusive of transportation vehicles or vessels).

The Agency recognizes that a wide variety of situations exist in the real world, and it is anxious to make its regulations and regulatory interpretations reasonable, understandable, and capable of implementation. The Agency can only do this by learning of situations where the regulations do not work well.

Dated: October 24, 1980.

Douglas M. Costle,

Administrator.

Title 40 of the Code of Federal Regulations is amended as follows:

1. Add the following paragraph (c) to § 261.4:

§ 261.4 Exclusions.

* * * * *

(c) Hazardous wastes which are exempted from certain regulations. A hazardous waste which is generated in a product or raw material storage tank, a product or raw material transport vehicle or vessel, or in a manufacturing process unit or an associated non-waste-treatment manufacturing unit, is not subject to regulation under Parts 262 through 265 and Parts 122 through 124 of this chapter or to the notification requirements of Section 3010 of RCRA until it exits the unit in which it was generated, unless the unit is a surface impoundment, or unless the hazardous waste remains in the unit more than 90 days after the unit ceases to be operated for manufacturing, or for storage or transportation or product or raw materials.

§ 260.10 [Amended]

2. Amend the definition of "Generator" in § 260.10 to read as follows:

* * * * *

Generator means any person, by site, whose act or process produces hazardous waste identified or listed in Part 261 of this chapter or whose act first causes a hazardous waste to become subject to regulation.

* * * * *

3. Add the following definitions to § 260.10:

* * * * *

"Transport vehicle" means a motor vehicle or rail car used for the transportation of cargo by any mode. Each cargo-carrying body (trailer, railroad freight car, etc.) is a separate transport vehicle. "Vessel" includes every description of watercraft, used or capable of being used as a means of transportation on the water.

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ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 261

[SW FRL 1639-1a]

Hazardous Waste Management System: Identification and Listing of Hazardous Wastes

AGENCY: Environmental Protection Agency.

ACTION: Proposed rule.

SUMMARY: Pursuant to Section 3001 of the Resource Conservation and Recovery Act of 1976, as amended (RCRA), the Environmental Protection Agency is proposing to amend the characteristic of Extraction Procedure (EP) toxicity (40 CFR 261.24; 45 FR 33122) to apply to hexavalent chromium instead of total chromium. The effect of amending the EP toxicity characteristic will be to narrow the scope of the EP characteristic, making it applicable to a more limited category of chromium-containing wastes. These wastes will then be subject to the management standards issued by EPA under Sections 3002 through 3006 and 3010 of RCRA (Parts 262 through 265, 122 through 124 of this Chapter and 45 FR 12746). As part of this proposal, the Agency is proposing a new analytical method for use in analyzing waste extracts for the presence of hexavalent chromium.

DATES: EPA will accept public comments on the proposed amendment until December 30, 1980. Any person may request a hearing on this proposal by filing a request with John P. Lehman, whose address appears below, by November 20, 1980. The request must contain the information prescribed in § 260.20(d) of this chapter.

ADDRESSES: Comments should be addressed to Docket Clerk, Office of Solid Waste [WH-562], U.S. Environmental Protection Agency, 401 M Street, SW., Washington, D.C. 20460. Requests for hearing should be addressed to John P. Lehman, Director, Hazardous and Industrial Waste Division, Office of Solid Waste [WH-565], U.S. Environmental Protection Agency, Washington, D.C. 20460. Communications should identify the regulatory docket number "Section 3001 chromium standard."

The public docket for this proposed rulemaking is located in Room 2711, U.S. Environmental Protection Agency, 401 M St., SW., Washington, D.C. 20460 and is available for viewing from 9:00 a.m. to 4:00 p.m., Monday through Friday, excluding holidays.

FOR FURTHER INFORMATION CONTACT: Matthew A. Straus, Office of Solid Waste [WH-565], U.S. Environmental Protection Agency, 401 M St., SW., Washington, D.C. 20460, (202) 755-9187.

SUPPLEMENTARY INFORMATION: The Environmental Protection Agency is proposing today to amend the characteristic of EP toxicity (40 CFR 261.24; 45 FR 33122) to apply to hexavalent chromium instead of total chromium. This preamble describes the reasons for this proposed amendment, the precise standard being proposed, and a proposed new analytical method for distinguishing between tri- and hexavalent chromium.

I. Basis For a Distinction in the Hazardous Waste Management Regulations Between The Different Valence States of Chromium

On May 19 and July 16, 1980, EPA published its initial regulations implementing Section 3001 of the Resource Conservation and Recovery Act of 1976 (RCRA), as amended (see 45 FR 33084 and 47832). These regulations define the scope of a comprehensive Federal and State program to effectively control the management of hazardous wastes.

Under these regulations, a solid waste becomes subject to the hazardous waste management system in either of two ways: the specific waste is listed in Part 261 Subpart D (45 FR 33122–33124), or exhibits any of the characteristics of hazardous waste identified in Subpart C (45 FR 33121–122). The criteria for listing hazardous wastes and the characteristic of EP toxicity are based upon the total chromium present in the waste and in the waste extract respectively, without differentiating the *type* of chromium present. These regulations thus specify "chromium and compounds, N.O.S." as hazardous constituents for purposes of listing hazardous wastes (*see* Appendix VIII to Part 261; 45 FR at 33132), and specify a maximum concentration level for "chromium" when identifying wastes by means of the EP toxicity characteristic. (*See* § 261.24, 45 FR at 33122.) A number of wastes listed in the May and July regulations contain chromium as a constituent of concern (specifically EPA Hazardous Waste Nos. F006, K002–008, K048–051, K053–058, K061–063, K069, K074, K078–082, K086, and K090–092). Additional wastes are expected to be identified as hazardous because they fail the EP toxicity characteristic for chromium.

Chromium, however, occurs in a number of valence states, of which the trivalent (Cr (III)) and the hexavalent (Cr (VI)) are environmentally significant.[1] The Agency has received many comments arguing that trivalent chromium is sharply distinguishable from hexavalent chrome in its potential to cause significant human health and environmental harm under normally-occurring solid waste management conditions. These commenters' ultimate point is that solid wastes containing exclusively, or virtually exclusively, trivalent chromium are not hazardous due to chromium concentrations, and should not be regulated as if they contain hexavalent chromium.

The Agency has reviewed these comments carefully, and has conducted its own investigation of this question in promulgating the regulations and in response to the comments. We believe that the toxicity and environmental fate of trivalent chromium merits further study, and we intend to investigate these questions further. It is our conclusion, however, that at the present time the hazardous waste management regulations should be amended to reflect a distinction between trivalent and hexavalent chromium. The principal points of distinction between the two types of chromium which we believe justify this regulatory amendment are the differing toxicities and the differing potentials for migration and mobility of chromium (III) and chromium (VI), and the apparent low likelihood that trivalent chromium will oxidize to hexavalent chromium under most plausibly-occurring types of improper waste management. These distinctions are discussed in more detail below.

A. Distinctions in the Environmental Hazards Posed by Trivalent and Hexavalent Chromium

It is generally agreed among the scientific community that the available data show that trivalent chromium is less toxic than the hexavalent form. The carcinogenicity of various hexavalent chromium compounds in human and animal models has been well documented (NAS, 1974; NIOSH, 1975; U.S. EPA, 1978). EPA's Carcinogen Assessment Group (CAG) has determined that there is substantial evidence that hexavalent chromium compounds are carcinogenic in man. Data on the carcinogenicity of trivalent chromium are inadequate. There have been no epidemiological studies on workers using trivalent chromium compounds; rats showed a weak carcinogenic response to chromium (III)

[1] Chromium valence states of −2 to +6 have been reported, but most of these are too unstable to be of significance in biological and environmental processes. *See generally*, U.S. EPA, *Water-Related Environmental Fate of 129 Priority Pollutants*, Vol. I, EPA-440/4-79-029a (1979).

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acetate. (Hueper and Payne, 1962; Maltoni, 1974).

It is further agreed that only hexavalent chromium presently is known to pose a serious threat of mutagenicity. Chromium compounds induce chromosomal abberrations in human and animal leukocytes, and mutations in bacteria and yeasts (EPA, 1978; Petrilli and deFlora, 1977, 1978; Nakumoro, 1978). In these studies, trivalent chromium compounds have a weak response, while hexavalent compounds show significantly higher activity.

Acute and chronic toxicity problems associated with exposure to hexavalent chromium include penetrating skin ulcers, perforation of the nasal septum, inflammation of the larynx, as well as damage to kidneys and lungs. (Casarett and Doull, 1979; NAS, 1974; NIOSH, 1975; Bovett et al., 1977.) These effects do not occur upon exposure to chromium (III). The only well-documented adverse consequence of exposure to trivalent chrome is allergic dermatitis (also a property of Hexavalent chromium compounds) (Casarett and Doull, 1979)[2]

Various direct applications of trivalent chromium to humans are actually considered to be desirable. Trivalent chromium is required for proper metabolic functioning. It serves as a cofactor for the action of insulin, and is necessary for normal glucose utilization (Toepfer, et al., 1977). The Food and Drug Administration also has approved the use of trivalent chromium-containing pigments in cosmetics. (21 CFR 73.2326 and 73.2327.) No such applications of hexavalent chrome have been approved, nor are they considered to be beneficial.

Thus, at the present time, there are well-recognized distinctions between the human health and environmental hazards posed by tri- and hexavalent chromium.

B. Migratory Potentials of Trivalent and Hexavalent Chromium

Trivalent chromium appears to have significantly lower migratory potential than hexavalent chromium, and to have significantly less mobility should it migrate from a waste matrix. Most trivalent chromium salts are virtually insoluble. Trivalent chromium, moreover, is strongly adsorbed by clays and by organic soil materials (U.S. EPA, 1978, Bartlett, 1976; and Griffin, 1979), decreasing the possibility of exposure via a groundwater exposure pathway even if migration occurs. In contrast, hexavalent chromium salts are very soluble and therefore have high migratory potential.

Groundwater and leachate monitoring data submitted by various leather tanners appear to confirm the relative immobility of trivalent chromium under normally-occurring waste disposal conditions. (*See, e.g.,* Comments of Tanners' Council of America, August 18, 1980, pp. 7–13; Comments of Dr. Robert M. Lollar, Technical Director of Tanners' Council, August 12, 1980, pp. 6–7.) In addition, the Agency has obtained groundwater and leachate monitoring data from sites accepting large quantities of tannery waste (which wastes contain high concentrations of trivalent chrome), in some cases for long periods of time (from 20 to 86 years). These sites show no evidence of chromium contamination of groundwater. (Comments of Berwick Sewer District, June 30, 1980; Comments of Irving Tanning Co., July 15, 1980.) Groundwater contamination did not occur even in cases of prolonged worst-case management of trivalent chromium-containing wastes (*see* Comments of Wolverine World Wide, Inc., August 15, 1980, Attachment 1, pp. 2, 9–13 (improperly sited landfill with high water table and permeable soil co-disposing tannery wastes with other industrial wastes without any particular precautions still does not show evidence of trivalent chromium groundwater contamination)).

C. Potential of Trivalent Chromium to Oxidize to Hexavalent Chromium

In developing the present regulatory regime based upon total chromium, the Agency was aware of the differing potentials for hazard of tri- and hexavent chromium, and also of their differing migratory potentials. Our concern was that trivalent chromium, under waste management conditions, could oxidize to the hexavalent form, which would render it highly mobile and toxic. (*See, e.g.,* U.S. EPA, Listing Background Document for Leather Tanning and Finishing Industry, pp. 733–34, May 2, 1980.) Further analysis indicates, however, that such oxidation is not likely to occur under most waste management practices. Although the oxidation of trivalent chromium can occur on a theoretical basis (Carlin, 1965; U.S. EPA, 1977), oxidation is unlikely to occur in normal land disposal situations. Thus, oxidation does not take place except under alkaline and aerobic conditions (Robertson, 1975). Even then, the rate of oxidation is very slow unless manganese dioxide is present (Schroeder and Lee, 1975). These conditions are not ordinarily found in landfill or impoundment disposal situations, since these are typically anaerobic environments. (Ham, 1979.) Monitoring data submitted in comments likewise supports the conclusion that oxidation of trivalent chromium is unlikely when these wastes are land disposed. (*See* Comments of Alley, Young & Baumgartner, Inc., July 11, 1980; Comments of Salz Leathers, Inc., July 14, 1980, exh. B.)[3]

Given the relatively low toxicity of trivalent chromium, its low migratory potential, and the lack of indication of potential for oxidation under usual land disposal conditions, the Agency does not believe that land disposal of trivalent chromium-containing wastes in common landfill or impoundment situations poses a present or potential hazard to human health or the environment via soil migration to groundwater. We therefore believe it necessary to recognize a distinction between tri- and hexavalent chromium-containing wastes when land disposed.

Our research indicates, however, that trivalent chromium oxidizes to the hexavalent form when materials containing chromium (III) are incinerated or similarly treated by a destructive oxidation process. The incineration ash will certainly be contaminated with chromium (VI) (Comments of Tanners' Council of America, *supra,* p. 6), and we expect that hexavalent chromium will be present in incinerator emissions as well (U.S. Dept. of the Interior, 1979). As a result, we believe that chromium-bearing wastes (*i.e.,* wastes containing both valence types) continue to require Subtitle C regulation when managed by incineration or similar processes. Our contemplated regulatory approach for these wastes is described in Part II. C below.

D. Impact of the Proposed Distinction On Other Regulatory Programs

We note, at this point, that certain other of the Agency's regulatory programs regulate on the basis of total chromium. Our porposed action involves only the hazardous waste management program, and is based on a perceived distinction in the substantiality of hazard posed by tri- and hexavalent chromium-containing wastes when disposed on land.

Different considerations underly the Agency's other programs. For example,

[2] Various aquatic species likewise are more susceptible to the hexavalent form of chromium.

[3] Ultraviolet light-sensitized oxidation of trivalent chromium has been demonstrated under laboratory conditions (Stephens, 1977). This oxidation did not take place, however, when lake water was tested. In any case, we do not believe that these experimental conditions reflect those normally occurring in a waste disposal environment.

the National Interim Primary Drinking Water standards are for total chromium. This is because pre-treatment of drinking water by chlorination may result in oxidation of trivalent chromium. (Guidelines for Canadian Water Quality, 1978; Sorg, 1979; U.S. EPA, 1976.) Total chromium is thus the appropriate parameter. (U.S. EPA, 1976.)

All chromium compounds also are regulated as toxic under the Clean Water Act (CWA). In part, this reflects the Congressional determination to list all chromium compounds as toxic pollutants under CWA Section 307(a)(1). In addition, the Administrator has a great deal of flexibility in making listing (or delisting) determinations under CWA Section 307. He is to consider a series of enumerated factors, to assign appropriate weight to each, and to arrive at a final determination by balancing the different elements. The identification process under RCRA is much less flexible and is to some extent more stringent, in light of the significantly more impactive consequences of a RCRA hazardous waste determination. Thus, wastes are not to be identified as hazardous unless they are capable of posing a "substantial" hazard to human health or the environment. In light of these differing statutory schemes, regulatory action affecting chromium-containing wastes has no direct bearing on the status of chromium as a toxic pollutant under CWA Section 307(a).

II. Regulatory Action

A. Proposal To Amend the Characteristic of EP Toxicity

In order to reflect the differing environmental hazards posed by trivalent and hexavalent chromium-containing wastes when disposed on land, the Agency is proposing to amend the extraction procedure to apply to hexavalent chrome instead of to total chromium. We are not, however, proposing to change the maximum concentration level of hexavalent chromium in the EP extract, which would consequently remain at 5.0 mg/l. This level is based on the National Interim Primary Drinking Water Standard, which was established to reflect the known toxicity of the hexavalent form.[4] (Sorg, 1979; U.S. EPA, 1976.)[5] Other countries and organizations also have adopted this level for chromium in drinking water, and have indicated explicitly that the standard is for hexavalent chromium. (WHO, 1970; NAS, 1977; Sorg, 1979 (describing Japan's drinking water standard for hexavalent chromium).) Since the underlying drinking water standard in fact reflects human health and environmental dangers of hexavalent chromium, we feel justified in retaining this standard when regulating solely on the basis of hexavalent chrome.

We stress that under our proposal, all wastes are to be tested for the characteristic of EP toxicity based on hexavalent chromium when the amended characteristic is finalized. We wish particularly to clarify this point because of other regulatory action taken today delisting certain chromium-bearing wastes and granting temporary exclusions from hazardous waste status for other such wastes (published elsewhere in Part XI of this issue).

All of these wastes will be subject to the amended EP toxicity characteristic and generators of these wastes consequently will have to test their waste extracts for the presence of hexavalent chromium.

B. Proposed Analytical Method Distinguishing Between Tri- and Hexavalent Chromium

The proposal to amend the EP toxicity characteristic to apply only to hexavalent chromium requires that there be an analytical method which distinguishes between these two valence states. EPA's Office of Research and Development has developed such a procedure. The method (fully described in Appendix A to this preamble) is based on the separation of hexavalent chromium from solution by the coprecipitation of lead chromate with lead sulfate at a pH of 3.5. The precipitate is resolubilized in nitric acid and quantified by atomic absorption spectroscopy. Since trivalent chromium does not precipitate under such conditions, the method offers a means of determining the presence and concentration of the hexavalent state in admixture with the trivalent form. Comments are solicited on the application of this method to EP extracts.

This method has been evaluated using effluents containing high concentrations of organic material, samples where matrix interferences have been encountered with the more usual chelation/extraction procedures. Further evaluation presently is being conducted with a wide variety of industrial wastes and EP extracts. The procedure will be finally promulgated after review of comments and after an adequate supportive data base is available.

C. Incineration of Chromium-Containing Wastes

The Agency contemplates regulating wastes which contain both tri- and hexavalent chromium in one circumstance,[6] namely when a chromium-bearing waste is incinerated or destructively oxidized by a similar process. Such control is necessary because trivalent chromium oxidizes to hexavalent chromium during incineration. (U.S. Dept. of Interior, 1979). Incinerated wastes containing trivalent chromium thus should be regulated as if they contain hexavalent chromium. The Agency intends in the near future to adopt appropriate regulations under Parts 261 and 266 regulating these types of chromium-bearing wastes. Regulatory action is being deferred at the present time, however, due to the need to implement other parts of the hazardous waste management program, and also because incineration of trivalent chromium-containing wastes does not appear to be widespread,[7] limiting the possibility of environmental insult during this interim period. Furthermore, the Agency needs more time to develop regulatory standards to apply to facilities incinerating trivalent chromium-containing wastes. For these reasons, we are not proposing any standards for incineration of trivalent chromium-containing wastes at this time.

EPA is, however, anxious to obtain comments on this contemplated approach. We specifically solicit comments to the following questions:

1. When incineration of chromium-containing wastes causes oxidation of

[4] The maximum concentration level of the EP toxicity characteristic, of course, is established at two orders of magnitude above the Drinking Water Standard.

[5] As noted above, the standard also establishes a margin of safety in light of oxidation of chromium as a result of drinking water treatment (Sorg, 1979).

[6] There also is one other situation where wastes might be regulated based on total chromium. The Agency still has some concern that trivalent chromium from waste disposal sites could migrate to public water systems where it would be oxidized during chlorination to the hexavalent state. We believe the likelihood of this occurring to be remote in light of the low migratory potential of trivalent chromium. However, should migration of trivalent chromium from improper waste disposal occur in concentrations sufficient to interfere substantially with treatment of public water systems, or otherwise cause public health concerns, we view our imminent hazard authority under Section 7003 of RCRA as sufficient to enjoin further contamination. We are also prepared in this circumstance to exercise our listing authority under Subtitle C to address the particular site creating the problem.

[7] For example, the tanning industry, a principal generator of trivalent chromium-bearing wastes, does not presently incinerate any of its wastes, although a few individual tanneries and the Tanners' Council in collaboration with the U.S. Bureau of Mines are investigating the feasibility of waste incineration. (U.S. Dept. of Interior, 1979.) Several POTW's do, however, use the Zimpro process to incinerate tannery sludges.

trivalent chromium to hexavalent chromium, will this oxidized hexavalent chromium be emitted to the air as a result of incineration or will it remain in the incinerator ash? How effective are available stack scrubbing devices in removing any chromium from the off-gases?

2. If chromium-bearing wastes are to be regulated as hazardous when incinerated or when subjected to similar destructive oxidation processes, what concentration of chromium should be present in the waste to trigger regulatory controls? What is the correlation between concentrations of total chromium in a waste, and concentrations of hexavalent chromium in incinerator emissions? Do conditions of incineration or pyrolysis affect this ratio?

3. What management standards should be applied to facilities incinerating chromimum-bearing wastes during the interim status period? Are subparts A, B, C, D, E, G, H, and O of the Part 265 interim status standards appropriate?

Dated: October 27, 1980.

Douglas M. Costle,

Administrator.

It is proposed to amend Title 40 CFR Part 261 as follows:

§ 261.24 [Amended]

1. In § 261.24, *Characteristic of EP Toxicity,* amend by revising the entry for EPA Hazardous Waste Number D007 Table 1 as follows:

EPA hazardous waste number	Contaminant	Maximum concentration (milligrams per liter)
D007	Chromium (VI)	5.0

2. In Appendix II to Part 261 EP Toxicity Test Procedure, revise *Analytical Procedures for analyzing Extract Contaminants* as follows: [1]

Analytical Procedures For Analysing Extract Contaminants

The test methods for analyzing the extract are as follows:

(1) For arsenic, barium, cadmium, lead, mercury, selenium, silver, endrin, lindane, methoxychlor, toxaphene, 2, 4-D [2, 4-dichlorophenoxyacetic acid], or 2, 4, 5-TP [2, 4, 5-trichlorophenoxypropionic acid]: "Test Methods for the Evaluation of Solid Waste, Physical/Chemical Methods," Solid Wate Information, U.S. Environmental Protection Agency, 26 W St. Clair Street, Cincinnati, Ohio 45268 [SW-846, 1980].

(2) For chromium (VI): Method 8.545 in "Test Methods for the Evaluation of Solid Waste, Physical/Chemical Methods." Solid Waste Information, U.S. Environmental Protection Agency, 26 W. St. Clair Street, Cincinnati, Ohio 45268.

Appendix A—Method of Analysis for Hexavalent Chromium

Method 8.545 Hexavalent Chromium by Coprecipitation With Lead Sulfate

1. Scope and Application

1.1 This method covers the determination of dissolved hexavalent chromium Cr[VI] in Extraction Procedure EP) extracts.

1.2 The method may be used to analyze samples containing more than 5 μg of Cr(VI) per liter. In many cases, dilution of the extract will be necessary to achieve an optimal concentration range for Furnace Atomic Absorption spectrometry. The dilution of the sample extract is desirable since it will reduce the likelihood of interferences from sulfate and chloride ions (see 4.1) which are present in many extracts and to increase the reproducibility of the method.

2. Summary of the Method

2.1 The method is based on the separation of Cr[VI] from solution by coprecipitation of lead chromate with lead sulfate in a solution of acetic acid. After separation the supernate (containing Cr(III)) is drawn off, the precipitate is resolubilized in nitric acid as trivalent chromium Cr[III] and quantified by furnace atomic absorption spectrometry.

3. Sample Handling and Preservation

3.1 For guidance on sample handling and glassware cleaning procedures see Section 8.49.

3.2 The sample to be evaluated for the Extraction Procedure characteristic should not be acidified, but instead transported and stored at 4°C until analysis.

3.3 Since stability of Cr(VI) is not completely understood at this time, the analysis should be carried out as soon as possible.

4. Interferencee

4.1 Samples containing either sulfate or chloride in concentrations above 1000 mg/liter should be diluted before proceeding to step 9.1.

5. Instrument Parameters (Furnance Atomic Absorption Spectrometry)

5.1 Drying Time and Temperature: 30 sec at 125°C.

5.2 Ashing Time and Temperature: 30 sec at 1000°C.

5.3 Atomizing Time and Temperature: 10 sec at 2700°C.

5.4 Purge Gas Atmosphere: Argon

5.5 Wavelength: 357.9 nm

5.6 Other operating parameters should be set as specified by the particular instrument manufacturer.

6. Special Apparatus

6.1 Glassware

6.1.1 Filtering flask, heavy wall, 1 liter capacity

6.1.2 Centrifuge tubes, heavy duty, conical, graduated, glass stoppered, 10 ml capacity

6.1.3 Pasteur pipets, borosilicate glass, 6.8 cm

6.2 Centrifuge: any centrifuge capable of reaching 2000 rpm and accepting the centrifuge tubes described in 6.1.2, may be used.

6.3 pH Meter: a wide variety of instruments are commerically available and suitable for this work.

6.4 Test Tube Mixer: any mixer capable of thorough vortex is acceptable.

7. Reagents

7.1 Lead Nitrate Solution: Dissolve 33.1 grams of lead nitrate, $Pb(NO_3)_2$ (analytical reagent grade), in deionized distilled water and dilute to 100 ml.

7.2 Ammonium Sulfate Solution: Dissolve 2.7 grams of ammonium sulfate, $(NH_4)_2SO_4$ (analytical reagent grade) in deionized distilled water and dilute to 100 ml.

7.3. Calcium Nitrate Solution: Dissolve 11.8 grams of calcium nitrate, $Ca(NO_3)_2 \cdot 4H_2O$ (analytical reagent grade) in deionized distilled water and dilute to 100 ml. 1 ml=20 mg Ca.

7.4 Nitric Acid, Concentrated, distilled reagent grade or spectrograde quality.

7.5 Acetic Acid, Glacial: ACS reagent grade 7.5.1 Acetic Acid, 10% (v/v): Dilute 10 ml glacial acetic acid to 100 ml with deionized distilled water.

7.6 Ammonium Hydroxide, 10% (v/v): Dilute 10 ml concentrated ammonium hydroxide, NH_4OH (analytical reagent grade), to 100 ml with deionized distilled water.

7.7 Hydrogen Peroxide, 30%: ACS reagent grade.

7.8 Potassium Dichromate Standard Solution: Dissolve 2.8285 grams of dried potassium dichromate, $K_2Cr_2O_7$ (analytical reagent grade), in deionized distilled water and dilute to 1 liter. 1 ml=1 mg Cr (1000 mg/1).

7.9 Trivalent Chromium Working Stock Solution: To 50 ml of the potassium dichromate standard solution (7.8) add 1 ml of 30% H_2O_2 (7.7) and 1 ml concentrated HNO_3 (7.4) and dilute to 100 ml with deionized distilled water. 1 ml=0.5 mg Cr(III). Prepare fresh monthly or as needed.

8. Calibration

8.1 At the time of anlaysis, prepare a blank and a series of at least four calibration standards from the Cr[III] working stock (7.9) that will adequately bracket the sample and cover a concentration range of 5 to 100 ug Cr/1. Add to the blank and each standard, before diluting to final volume, 1 ml 30% H_2O_2 (7.7), 5 ml concentrated HNO_3 (7.4), and 1 ml calcium nitrate solution (7.3) for each 100 ml of prepared solution. These calibration standards should be prepared fresh weekly, or as needed.

8.2 The listed instrument condition (5) and calibration concentration range are for a Perkin-Elmer HGA-2100 based on the use of a 20 ul injection, continuous flow purge gas and non-pyrolytic graphite. The use of simultaneous background correction is requred for both calibration and sample analysis.

9. Procedure

9.1 Transfer a 50 ml portion of the filtered sample to a 100 ml Griffin beaker and adjust to a pH of 3.5±0.3 by adding dropwise volumes of 10% acetic acid. Note: Care must

[1] Note: See FR Doc. 80-33871 published at the end of this Part IX of the Federal Register.

be exercised not to take the pH below 3. If the pH is inadvertently lowered to <3, 10% NH_4OH (7.6) should be used to readjust the pH to 3.5 ±0.3.

9.2 Pipet a 10 ml aliquot of the adjusted sample into a centrifuge tube (6.1.2). Add 100 ul of the lead nitrate solution (7.1), stopper the tube, mix the sample and allow to stand for 3 minutes.

9.3 After the formation of lead chromate, to help retain Cr(III) complex in solution, add 0.5 ml glacial acetic acid (7.5), stopper and mix.

9.4 To provide adequate lead sulfate for coprecipitation add 100 ul of ammonium sulfate solution (7.2), stopper and mix.

9.5 Place the stoppered centrifuge tube in the centrifuge, making sure that the tube is properly counterbalanced. Start the centrifuge and slowly increase the speed to 2000 rpm in small increments over a period of 5 minutes.

Note.—The speed of the centrifuge must be increased slowly to insure complete coprecipitation.

9.6 After centrifuging remove the tube and withdraw and discard the supernate using the apparatus detailed in Figure 1. As the pasteur pipet is lowered into the tube the supernate is sucked over into the filtering flask. With care the supernate can be withdrawn to within approximately 0.1 ml above the precipitate.

9.7 To the remaining precipitate add 0.5 ml concentrated HNO_3 (7.4), 100µl 30% H_2O_2 (7.7) and 100µl calcium nitrate solution (7.3). Stopper the tube and mix using a vortex mixer to disrupt the precipitate and solubilize the lead chromate. Dilute to 10ml, mix and analyze in the same manner as the calibration standard (8.2).

10. Verification

10.1 For every sample matrix analyzed verification is necessary to determine that neither a reducing condition nor chemical interference affecting precipitation is present. This must be accomplished by analyzing a second 10 ml aliquot of the pH-adjusted filtrate that has been spiked with Cr(VI) (7.7). The amount of spike added should double the concentration found in the original aliquot. Under no circumstance should the increase be of lese than 30µg Cr(VI)/1. To verify the absence of an interference the spike recovery should be between 85% and 115%.

10.2 If the addition of the spike extends the concentration beyond the calibration curve the analysis solution should be diluted with blank solution, and the calculated results adjusted accordingly.

10.3 If the result of verification indicates a suppressive interference, the sample should be diluted and reanalyzed.

11. Analytical Notes

11.1 Nitrogen should not he used as a purge gas because of possible CN band interference.

11.2 The use of pyrolytic graphite should be avoided when possible, since in some situations an enhancement effect has hgen reported.

11.3 Pipet tips have been reported to bs a possible source of contamination.

11.4 The method of standard addition should he used in accordance with the general methods given in the manual "Test Methods for Evaluating Solid Waste," SW-846.

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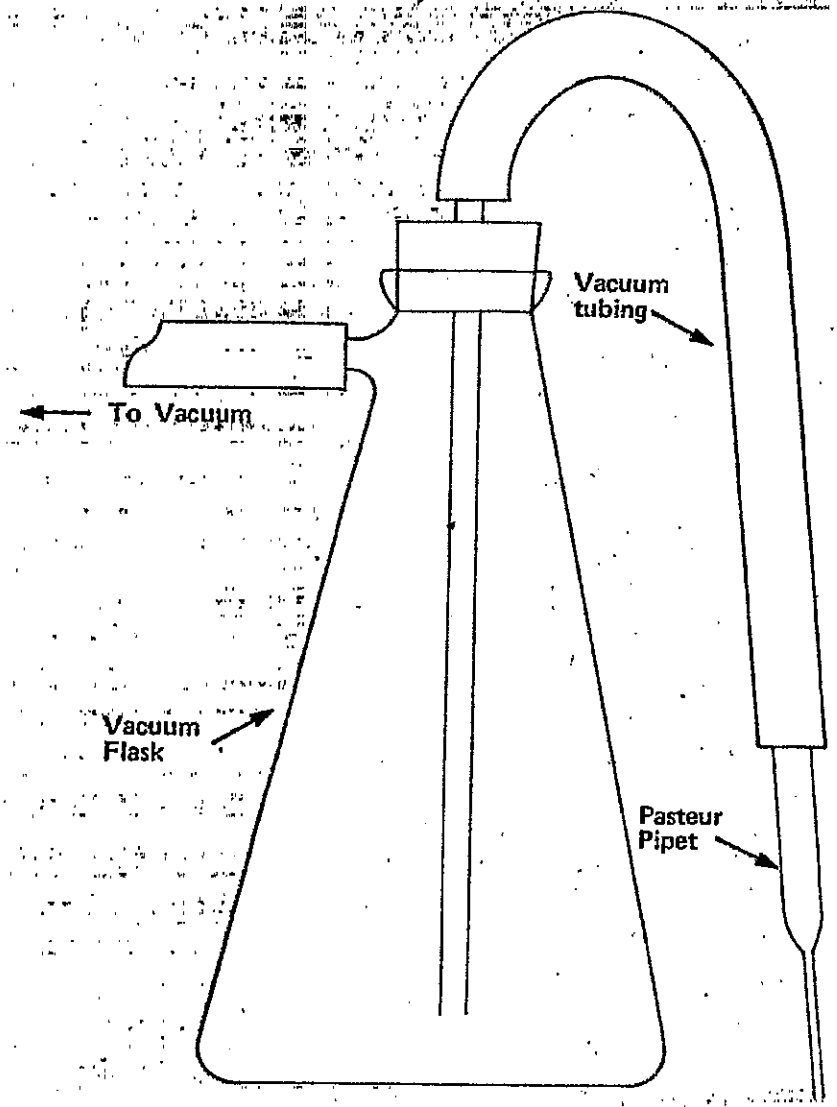


FIGURE 1

[FR Doc. 80-33807 Filed 10-29-80; 8:45 am]

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ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 261

[SW FRL 1639-1b]

Hazardous Waste Management System: Identification and Listing of Hazardous Wastes

AGENCY: Environmental Protection Agency.

ACTION: Interim Final Rule and Request for Comments.

SUMMARY: This rule amends § 261.4 of the Resource Conservation and Recovery Act (RCRA) hazardous waste management regulations by temporarily excluding from hazardous waste status wastes which presently are deemed hazardous solely due to the presence of chromium, but contain trivalent chromium exclusively (or nearly exclusively), are generated from processes which use trivalent chromium exclusively (or nearly exclusively), and are typically and frequently managed in non-oxidizing environments. Specific wastes excluded under this standard are tannery wastes listed as hazardous in § 261.32 (EPA Hazardous Waste Nos. K053 to K058); waste leather scrap from the leather tanning industry, the shoe manufacturing industry and other leather product manufacturing industries; and wastewater treatment sludges from the production of TiO_2 pigment using chromium-bearing ores by the chloride process listed as hazardous in § 261.32 (EPA Hazardous Waste No. K074).

Other wastes also may be temporarily excluded if they meet the standard set out above. To be eligible for a temporary exclusion, a waste generator or group of generators must petition the Agency to grant their waste a temporary exclusion and show why their waste meets the temporary exclusive standard. Petitions will be processed under the procedures set forth in § 260.20 of the hazardous waste regulations. Generators of wastes already determined to be within the temporary exclusion need not file petitions.

This amendment is taken in conjunction with two other regulatory actions. The first is a proposal to amend the characteristic of EP toxicity to apply only to hexavalent chromium. These temporary exclusions will remain in effect only until that proposed amendment is acted upon finally. The second regulatory action is a final delisting of certain chromium-bearing waste streams. The termporary exclusion provision is necessary to allow these delistings to have their intended effect, and therefore is being adopted as an interim final regulation.

DATES: Effective Date: This amendment, in the form published today, is interim final Agency action. It becomes effective on November 19, 1980.

EPA will accept public comments on this interim final regulation until December 30, 1980. Any person may request a hearing on this interim final rule by filing a request with John P. Lehman, whose address appears below, by November 20, 1980. The request must contain the information prescribed in § 260.20(d) of this chapter.

ADDRESSES: Comments should be sent to Docket Clerk, Office of Solid Waste (WH-562), U.S. Environmental Protection Agency, 401 M Street, SW., Washington, D.C. 20460.

Requests for hearing should be addressed to John P. Lehman, Director, Hazardous and Industrial Waste Division, Office of Solid Waste (WH-565), U.S. Environmental Protection Agency, Washington, D.C. 20460. Communications should identify the regulatory docket number "Section 3001/Temporary Exclusion."

The public docket for this interim final rule is located in Room 2711, U.S. Environmental Protection Agency, 401 M St., SW., Washington, D.C. 20460 and is available for viewing from 9 a.m. to 4 p.m., Monday through Friday, excluding holidays.

FOR FURTHER INFORMATION CONTACT: Matthew A. Straus, Office of Solid Waste (WH-565), U.S. Environmental Protection Agency, 401 M St., SW., Washington, D.C., (202) 755-9187.

SUPPLEMENTARY INFORMATION:

I. Temporary Exclusion From Subtitle C Regulation for Certain Chromium-Bearing Wastes

The Agency today has proposed to amend the characteristic of EP toxicity in 40 CFR 261.24 to apply to hexavalent rather than to total chromium (published elsewhere in Part XI of this issue of the Federal Register). The Agency also has taken final regulatory action today with respect to a number of hazardous waste listings (published elsewhere in Part XI of this issue), including the delisting of certain trivalent chromium-bearing waste streams. The present action is necessary to allow these other actions to have their intended effect. Thus, until the characteristic of EP toxicity is amended finally, all wastes remain subject to the existing standard based upon total chromium. We are concerned that the characteristic as it now stands identifies as hazardous certain trivalent chromium-bearing wastes which are unlikely to create a substantial present or potential hazard to human health or the environment when mismanaged, imposing significant regulatory burden without achieving any statutory purpose. A temporary exclusion for this limited class of wastes is needed to prevent this result.

We consequently will exclude temporarily from hazardous waste status certain chromium-bearing wastes. It must be emphasized that this exclusion will apply only insofar as the wastes would be hazardous because they fail the EP toxicity characteristic for chromium or because they are listed solely because of their chromium content. If they are hazardous for any other reason (*i.e.*, they fail the EP characteristic for any constituent but chromium, fail any other characteristic, or are listed for any other reason) they remain in the RCRA control system. The factors which must be present for a chromium-bearing waste to qualify for this temporary exclusion are:

—The waste contains trivalent chromium exclusively (or nearly exclusively);
—The waste is generated from an industrial process which uses trivalent chromium exclusively (or nearly exclusively), which process does not generate hexavalent chromium; and
—The waste is typically and frequently managed in non-oxidizing environments.

If a generator or an industry-wide group of generators can demonstrate that its (or their) wastes satisfy these prerequisites, the Agency will grant the waste a temporary exclusion and the waste will not require subtitle C management during an interim period. When the amended EP toxicity characteristic becomes final, this temporary exclusion will no longer be in effect, and waste generators will have to analyze their EP extracts for the presence of hexavalent chromium.

Our basis for selecting these factors and our views as to how these factors will be applied are as follows. In light of our decision to distinguish between tri- and hexavalent chromium for purposes of subtitle C regulation, wastes containing exclusively or nearly exclusively trivalent chromium may well not be hazardous. There is, however, a problem in demonstrating the absence of hexavalent chromium, due to the present lack of an analytical method which distinguishes between trivalent and hexavalent chromium at low ppm concentrations in waste extracts. (The Agency today proposed adoption of such a method, but is undertaking further study of the method before final promulgation.) In evaluating requests for temporary exclusions, we therefore will regard waste and waste extract

analytical data for chromium (VI) as highly relevant, but not as determinative. We also contemplate that generators will demonstrate the absence of hexavalent chromium by using process chemistry information, *i.e.*, showing that the industrial process generating the waste does not generate hexavalent chromium, so that hexavalent chromium will not be found in the wastes or will be present only in minimal concentrations.[1] In addition to process information, leachate and groundwater monitoring data and EP extract analyses are highly probative, since if chromium is shown to be present in substantially immobile form, the likelihood is that it is present in the trivalent state.

We also believe that at present there is no adequate assurance that chromium-bearing wastes do not contain potentially harmful concentrations of hexavalent chromium unless the industrial process itself is trivalent chromium-based. Although we are aware that the standard method of treatment of hexavalent chromium-containing wastewaters is to reduce the chromium and to precipitate it as chromium (III) hydroxide, we believe that this process is often incomplete, absent a strong economic incentive to fully reduce all chromium present. Certainly, we believe it would be highly imprudent to exclude from regulation these wastes, even temporarily, absent much greater assurance that they do not contain potentially dangerous amounts of hexavalent chromium.

Finally, to assure that any trivalent chromium which migrates from the waste will not oxidize to the hexavalent state, we will require that the wastes be managed typically and frequently in non-oxidizing environments. A non-oxidizing environment is one in which there is either a relative lack of oxygen or one which contains reducing agents sufficiently strong to cause reduction of the contaminant in question. These conditions ordinarily are present in landfills and surface impoundments. (Ham, R. A., et al., 1978, Background Study on the Development of a Standard Leaching Test.)

The Agency believes that site monitoring data is particularly important in demonstrating that chromium-bearing wastes are being managed in non-oxidizing environments. Thus, a demonstration by means of leachate and groundwater monitoring data that chromium remains essentially immobile in its actual management environment indicates that chromium remains in the insoluble and strongly adsorbed trivalent state, and therefore is not being oxidized (*see e.g.*, Comments of Berwick Sewer District, July 16, 1980; Comments of Alley, Young & Baumgartner, July 11, 1980 where appropriate leachate and groundwater monitoring data is presented).

[1] Hexavalent chromium concentrations below 5 mg/l certainly will be considered minimal. This level is based on the maximum concentration level for hexavalent chromium to be contained in the amended characteristic of EP toxicity.

II. Wastes Meeting the Temporary Exclusion Factors

We are presently aware of three groups of wastes meeting the temporary exclusion factors. The first group are the tannery wastes listed as hazardous in § 261.32 (EPA Hazardous Waste Nos. K053–056), and any other waste scrap leather generated by the leather tanning industry. As shown in the comments of many individual tanners and the comments of the Tanners' Council of America, these wastes contain nearly exclusively trivalent chromium. The industrial process generating the waste likewise utilizes trivalent chromium. Hides, in fact, cannot be tanned successfully with hexavalent chromium. Tanners thus either use trivalent chromium as a tanning agent, or, should trivalent chromium be unavailable, use hexavalent chromium and reduce it so that the tanning process can be completed. In either case, there appears to be an overwhelming commercial incentive to keep hexavalent chromium out of the process and hence out of the process wastes.

These wastes furthermore ordinarily are managed in non-oxidizing landfill environments. We therefore believe that an adequate showing has been made to justify the temporary exclusion of these wastes due to their chromium content.[2]

The second group of wastes within the temporary exclusion is waste leather scrap from the shoe manufacturing and other leather product manufacturing industries.[3] These wastes are substantively identical to tannery wastes (being composed of the same trivalent chromium-tanned hides involved in the tanning process), and so contain trivalent chromium exclusively or nearly exclusively. These wastes also are ordinarily managed in landfills, and so are unlikely to be oxidized.

The third group of wastes within the temporary exclusion are wastewater treatment sludges from the production of TiO_2 (titanium dioxide) pigment using chromium bearing ores by the chloride process (EPA Hazardous Waste No. K074). The chromium in the process effluent is trivalent, arising directly from the entirely trivalent component of the rutile or ilmenite ores used as a raw material. At no stage of the manufacturing process is there an opportunity for oxidation of the trivalent chromium. The resultant sludges thus are expected to contain only trivalent chromium. (*See* Comments of E.I. du Pont de Nemours & Co., September 15, 1980, pp. 8–10 describing the TiO_2 manufacturing process, and showing that only chromium (III) is present; leachate data submitted in these comments likewise tends to show that only trivalent chromium is present.) These wastes are usually disposed of in landfills or by ocean dumping. One plant uses a lined lagoon and one uses deep well injection. (U.S. EPA Hazardous Waste Listing Background Document, July 7, 1980, pp. 87–89.) These disposal situations do not offer opportunity for the oxidation of the chromium component. (Ham, 1979; Fukai, R., 1967, Valency State of Chromium in Sea Water, *Nature* 213: 901).

[2] Since these wastes were listed for reasons in addition to their chromium concentrations, the temporary exclusion for chromium does not by itself remove them from the hazardous waste management system. We are, however, delisting tannery wastes for these additional factors in an action taken elsewhere in today's Federal Register. The net result of these actions will be that these tannery wastes will no longer be listed, will not be considered hazardous if they fail the EP toxicity characteristic for total chromium, but will be hazardous if they fail the EP toxicity characteristic for any other constituent, or fail any other characteristic.

[3] These wastes were not listed, but some may fail the test for the characteristic of EP toxicity for chromium.

III. Procedures for Obtaining a Temporary Exclusion

The temporary exclusion is not limited to the wastes discussed specifically in Part II above. Other wastes also may meet the temporary exclusion factors and will be excluded if a proper showing is made to the Agency. Eligibility for a temporary exclusion may be requested by filing a petition for rulemaking under § 260.20(a). Petitions may be filed by individual generators, or on an industry-wide basis. Each petition must demonstrate why the wastes in question meet the temporary exclusion standards. Petitions then will be processed by the Agency in accord with the procedures set forth in § 260.20 (c)-(e). It should be noted that generators of the wastes which already have been determined to be within the temporary exclusion (*i.e.*, the wastes discussed in II. above) are not required to petition the Agency.

IV. Interim Final Promulgation

The temporary exclusion for this limited class of chromium-bearing wastes is being promulgated in interim final form. Thus, the three types of

wastes now within the temporary exclusion are no longer subject to the hazardous waste regulations based on their chromium content. The provision also is final for purposes of the 90-day petition deadline under Section 7006. The public will, however, have an additional opportunity to comment on the provision before it is published as a "final final" regulation.

The Agency does not take this procedural course lightly, but believes that unusual circumstances justify our action. First, many affected persons effectively have had the opportunity to comment on the substance of the provision by virtue of their comments on the interim final portions of the May 19 and July 16 regulations, principally the hazardous waste listings in § 261.32. Thus, much of the data supporting today's action was supplied in comments submitted by the tanning industry and (to a lesser extent) the titanium dioxide production industry. We therefore believe that the policy underlying the prior notice and comment requirement has been substantially satisfied here.

Second, as already noted, immediate action is necessary to give effect to final regulatory action taken today delisting waste streams from the tanning and TiO_2 production industries. These delisting actions present no prior notice and comment issues because the listings themselves were not yet promulgated in final form. However, certain of the delisted wastes might still fail the EP for total chromium, and would consequently remain in the system until the EP toxicity characteristic is amended finally. Immediate promulgation of the temporary exclusion consequently is necessary to allow the delistings to have their intended consequence.

Finally, we believe that use of advance notice and comment procedures would be impracticable and contrary to the public interest, and therefore that good cause exists for adopting these regulations in interim final form (*see* 5 U.S.C. 553(b)(B)). Although the "good cause" exception is narrow, courts have emphasized that "[i]t is an important safety value to be used where delay would do real harm." *U.S. Steel Corp.* v. *EPA*, 595 F.2d 207, 214 (5th Cir., 1979). We believe delay in promulgating the temporary exclusion could cause significant harm to the regulated community, particularly to the tanning industry. The tanners have indicated that there is a severe shortage of hazardous waste landfill capacity, especially in New England where many tanneries are located, so that disposal costs will increase very substantially even if hazardous waste management is required for only a short period. (*See, e.g.*, Comments of A. C. Lawrence Leather Co., July 10, 1980.) Courts have approved immediate promulgation of rules in like circumstances where failure to implement regulations would cause severe market dislocations. *See De Rieux* v. *Five Smiths, Inc.*, 499 F.2d 1321, 1332 (TECA), *cert. denied* 419 U.S. 896 (1974) (promulgation of government price controls); *Reeves* v. *Simon*, 509 F.2d 455, 458–59 (TECA 1974), *cert. denied*, 420 U.S. 991 (1975) (gasoline station fuel allocation regulations). The same principle applies here.

Dated: October 27, 1980.

Douglas M. Costle,
Administrator.

Title 40 CFR Part 261 is revised as follows:

1. In § 261.4, Exclusions, paragraph (b)(6) is added to read as follows:

§ 261.4 Exclusions.

* * * * *

(b) * * *

(6) (i) Wastes which fail the test for the characteristic of EP toxicity because chromium is present or are listed in Subpart D due to the presence of chromium, which do not fail the test for the characteristic of EP toxicity for any other constituent or are not listed due to the presence of any other constituent, and which do not fail the test for any other characteristic, if it is shown by a waste generator or by waste generators that:

(A) The chromium in the waste is exclusively (or nearly exclusively) trivalent chromium; and

(B) The waste is generated from an industrial process which uses trivalent chromium exclusively (or nearly exclusively) and the process does not generate hexavalent chromium; and

(C) The waste is typically and frequently managed in non-oxidizing environments.

(ii) Specific wastes which meet the standard in (i)(A), (B) and (C) (so long as they do not fail the test for the characteristic of EP toxicity, and do not fail the test for any other characteristic) are

(A) Chrome (blue) trimmings generated by the following subcategories of the leather tanning and finishing industry: hair pulp/chrome tan/retan/ wet finish; hair save/chrome tan/retan/wet finish; retan/wet finish; no beamhouse; through-the-blue; and shearling.

(B) Chrome (blue) shavings generated by the following subcategories of the leather tanning and finishing industry: hair pulp/chrome tan/retan/wet finish; hair save/chrome tan/retan/wet finish; retan/wet finish; no beamhouse; through-the-blue; and shearling.

(C) Buffing dust generated by the following subcategories of the leather tanning and finishing industry: hair pulp/chrome tan/retan/wet finish; hair save/chorme tan/retan/wet finish; retan/wet finish; no beamhouse; through-the-blue.

(D) Sewer screenings generated by the following subcategories of the leather tanning and finishing industry: hair pulp/chrome tan/retan/wet finish; hair save/chrome tan/retan/wet finish; retan/wet finish; no beamhouse; through-the-blue; and shearling.

(E) Wastewater treatment sludges generated by the following subcategories of the leather tanning and finishing industry: hair pulp/chrome tan/retan/wet finish; hair save/chrome tan/retan/wet finish; retan/wet finish; no beamhouse; through-the-blue; and shearling.

(F) Wastewater treatment sludges generated by the following subcategories of the leather tanning and finishing industry: hair pulp/chrome tan/retan/wet finish; hair save/chrome tan/retan/wet finish; and through-the-blue.

(G) Waste scrap leather from the leather tanning industry, the shoe manufacturing industry, and other leather product manufacturing industries.

(H) Wastewater treatment sludges from the production of TiO_2 pigment using chromium-bearing ores by the chloride process.

[FR Doc. 80-33866 Filed 10-29-80; 8:45 am]
BILLING CODE 6560-30-M

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40 CFR Part 261

[SW FRL 1639-1c]

Hazardous Waste Management System; Identification and Listing of Hazardous Wastes

AGENCY: Environmental Protection Agency.

ACTION: Final action amending interim final regulation.

SUMMARY: This regulation removes from the list of regulated hazardous wastes the wastes from the leather tanning industry and the titanium dioxide production industry which were listed as hazardous in interim final form in the Federal Register on May 19, 1980 (45 FR 33124) and July 16, 1980 (45 FR 47834). The preamble also discusses why other listed waste streams containing chromium will still be listed due to the presence of chromium. This action is

being taken as a result of other regulatory action taken concerning the regulation of chromium-bearing wastes under the hazardous waste managment program in documents published elsewhere in this Part XI of this Federal Register.

EFFECTIVE DATES: This action is effective on publication.

ADDRESSES: The public docket for this regulation is located in Room 2711, U.S. Environmental Protection Agency, 401 M St., S.W., Washington, D.C. 20460, and is available for viewing from 9 a.m. to 4 p.m., Monday through Friday, excluding holidays.

FOR FURTHER INFORMATION CONTACT: Matthew A. Straus, Office of Solid Waste (WH-565), U.S. Environmental Protection Agency, 401 M St., S.W., Washington, D.C. 20460, (202) 755-9187.

SUPPLEMENTARY INFORMATION:

I. Decision To Delist Wastes From TiO_2 Production and From the Leather Tanning and Finishing Industry

In other regulatory action taken today, the Agency has indicated that its principal regulatory concern in regulating chromium-bearing wastes under the hazardous waste management program is hexavalent rather than total chromium. The Agency consequently has reviewed all of the interim final and proposed waste listings in 40 CFR Part 261, Subpart D which listed chromium as a waste constituent of concern, and reevaluated these wastes to determine if they should continue to be listed due to the presence of chromium. We have decided that two groups of wastes; those from titanium dioxide production by the chloride process, and those from leather tanning and finishing, no longer should be listed due to chromium. We have further determined that leather tanning and finishing industry wastes also should not be listed for any other basis at the present time. We consequently are delisting both groups of wastes.[1]

We also reviewed all of our other listings of chromium-bearing wastes. (except for those wastes for which the comment period has been extended). We believe that all of these other wastes are likely to contain significant concentrations of hexavalent chromium, and therefore we are not amending our initial listings. We note further that many of these wastes are listed for constituents other than chromium, and our actions today do not in any way affect these additional bases for listing.[2]

A. Wastes Generated From TiO_2 Production

On July 16, 1980, the Agency adopted as an interim final listing, under 40 CFR § 261.32 wastewater treatment sludges from TiO_2 production via the chloride process (*see* 45 *FR* at 47834). On reevaluation, we have decided not to list this waste stream because it is derived from a trivalent chromium-based process and contains trivalent chromium exclusively or virtually exclusively. The titanium dioxide production process results in a waste stream which contains chromium (III) chloride. The presence of this compound results from the fact that the rutile and ilmenite ores used as raw materials can contain as much as 45% chromium (III) oxide. The chromium-bearing waste stream from this process thus contains chromium only in the trivalent form, and the resulting wastewater sludges therefore are not expected to contain any hexavalent chromium.

B. Wastes Generated by the Leather Tanning and Finishing Industry

The Agency's May 19 interim final waste listings included seven waste streams generated by the leather tanning and finishing industry (EPA Hazardous Waste Numbers KO53-059). These wastes were listed for the presence of chromium, chromium and lead, and (in the case of the wastewater treatment sludges generated by plants in certain subcategories) chromium and reactivity. With respect to chromium, the Agency has determined that these wastes contain exclusively or virtually exclusively trivalent chrome and therefore do not warrant listing on this basis. The leather tanning process depends on the chemical reaction of trivalent chromium with the free amine and hydroxyl groups on the hides' protein chains. This reaction will not occur if hexavalent chromium is used, so that there is a very strong commercial justification for the absence of hexavalent chromium in these wastes. Although it is true that if the trivalent tanning agent is not readily or economically available, tanneries use hexavalent chrome as a starting material, the chromium is then reduced to the trivalent state either before use in the tanning process or *in situ* during the tanning process (a "two bath" process now largely obsolete). Both economics and the recognized dangers inherent in the unnecessary risk in handling hexavalent chromium serve to assure the conversion to the trivalent form.[3]

The wastes resulting from the tanning process, therefore, are overwhelmingly in the trivalent state. In addition, leachate and groundwater monitoring data submitted by individual tanners indicate that the chromium contained in these wastes has low migratory potential under most waste management conditions, and also that it has very limited mobility should migration occur, confirming that these wastes contain chrome (III), rather than the highly mobile hexavalent chromium.

Certain tanning wastes were listed because of the presence of lead. Substantial data submitted by industry indicate convincingly, however, that lead is not typically used in the tanning process, nor is it found in process wastes, in regulatorily significant amounts or concentrations. We consequently believe continued listing on this basis is inappropriate. Furthermore, these wastes remain subject to the EP toxicity characteristic, so that those wastes containing excessive concentrations of lead will still be brought into the hazardous waste management system.

Two wastewater treatment sludges were listed as hazardous due to reactivity, more specifically because of the possibility of release of harmful concentrations of hydrogen sulfide gas under usual waste management conditions. Historical waste management data submitted by industry indicates, however, that harmful release of hydrogen sulfide does not occur typically and frequently in waste management practice. Rather, this problem is more likely to occur during the tanning process, prior to waste generation. (Comments of Robert M. Lollar, Technical Director, Tanners' Council of America, August 12, 1980.)

We have determined to delist these sludges for reactivity. We again note, however, that the wastes remain subject to the reactivity characteristic, so that these wastes should be deemed hazardous if harmful hydrogen sulfide generation occurs, or has occurred, during waste management. For example, if a generator is aware of prior dangerous release of hydrogen sulfide in managing these sludges, for example from storing these sludges in enclosed tanks, EPA must be notified that the wastes are reactive, and the wastes must be managed pursuant to Subtitle C regulatory controls. We also note that the Agency is working to quantify the present provision in the reactivity characteristic governing hydrogen sulfide and hydrogen cyanide generating

[1] We also are removing any reference to these wastes from Appendix VII to Part 261.

[2] We also note that the Agency may choose not to finalize the listing of certain of these waste streams for independent reasons when finalizing the May 19 interim final list of hazardous wastes.

[3] Thus, in one tanning facility visited by the Agency, when trivalent chromium is not available, a twenty percent excess of reductant is added to the hexavalent chromium to ensure that reduction will go to completion.

wastes (§ 261.23(a)(5)), and that these sludges will be subject to the revised characteristic when promulgated.

EPA is also investigating the possibility that these tannery wastes may be hazardous for reasons other than those for which they were listed originally. A possible source of waste contamination is use of hexavalent chromium-containing chrome pigments, and of benzidine and benzidine congener dyes in the finishing process. For example, dyes derived from the chemicals benzidine, 3,3'-dimethylbenzidine, and 3,3'-dimethoxybenzidine comprise approximately one fourth of the 3.1 kkg of dyes used by the tanning industry (MRI, 1979, "A Preliminary Materials Balance for Dyes and Pigments from Benzidine and Three Benzidine Derivatives." EPA Contract No. 68-01-3896, Draft Final Report, August 31, 1979), and may be present in these wastes. We are concerned about the potential carcinogenicity of the dyes themselves, and about the possible reduction of the dyes in the waste streams by heat, light, and chemical reducing agents, or their metabolism *in vivo* to the carcinogenic parent compounds benzidine, 3,3'-dimethylbenzidine and 3,3'-dimethoxybenzidine. In addition, certain biocides (notably phenolic derivatives) are used in the tanning process, and may contaminate process wastes. The Agency solicits information as to these practices, as to concentrations of these materials and their breakdown products in process wastes, and as to whether the wastes thereby should be considered to be hazardous.

II. Retention of Chromium as a Waste Constituent of Concern in Other Hazardous Waste Listings

Certain of the other May 19 and July 16 interim final and proposed waste listings are of wastes containing chromium as a waste constituent of concern. (*See* 45 FR 33123-124, 33137; and 45 FR 47833-834, 47838). We have reevaluated these listings to determine if the wastes should continue to be listed due to the presence of chromium.[1] It is our conclusion that all of these chromium-bearing waste streams should continue to be listed as hazardous due to chromium content because all derive from processes which use or produce a waste stream which contains hexavalent chromium. The basis for our conclusion is set out below.

[1] This discussion does not apply to chromium-containing waste streams for which the comment period has been extended. Industrial painting wastes, paint manufacturing wastes, and wastes from ferroalloys production are in this category.

The chromium-containing waste streams we have listed in interim final form or have proposed for listing are generated in the manufacture of inorganic pigments (EPA Hazardous Waste Nos. K002-008), in petroleum refining (EPA Hazardous Waste Nos. K048-051), in the manufacture of iron and steel (EPA Hazarous Waste Nos. K061-063), in secondary lead smelting (EPA Hazardous Waste No. K069), in electroplating (EPA Hazardous Waste No. F006), and in ink formulation (EPA Hazardous Waste No. K086). The chrome pigment process wastes are believed to contain hexavalent chromium because the production process requires the use of chromates, which are necessarily hexavalent chromium-containing compounds. Electroplating industry wastes likewise derive from processes using chromates, and so also are expected to contain hexavalent chromium. Chromate (Cr (VI)) pigments are constituents of the listed ink formulations, so that process wastes also should contain hexavalent chromium.

The various listed petroleum refining wastes likewise use chromates, in this case as corrosion inhibitors in cooling towers. The listed wastes from this industry are all derived from cooling tower wastewater streams, and thus are expected to contain hexavalent chromium.

The iron and steel industry and secondary lead industries generate chromium-containing emission control dusts and sludges. These production processes involve oxidative processes occurring at elevated temperatures, conditions known to cause oxidation of chromium (III) to chromium (VI). Spent pickle liquor, another listed waste from the steel industry, likewise is generated in oxidizing conditions (the pickling operation itself), and so will contain chrome (VI).

We are aware that treatment of chromium-containing wastewaters most often consists of the reduction of hexavalent chromium to the trivalent state and the subsequent precipitation of chromium (III) hydroxide. If the reduction is not carried out to completion, however, the hexavalent chromium may be entrained in the chromium (III) hydroxide precipitate. Further, in light of the large concentrations of chromium present in these wastewater streams, and the very small concentrations of the carcinogen hexavalent chromium needed to make a treatment sludge hazardous, we do not believe that the chromium in these wastewater streams will be fully reduced, so that these wastes remain capable of causing substantial harm if mismanaged.

Dated: October 27, 1980.

Douglas M. Costle,
Administrator.

Title 40 CFR, Part 261 is amended by deleting from the lists of hazardous wastes contained in § 261.32 the following waste streams:

§ 261.32 [Amended]

K053—Chrome (blue) trimmings generated by the following subcategories of the leather tanning and finishing industry: hair pulp/chrome tan/retan/wet finish; hair save/chrome tan/retan/wet finish; retan/wet finish; no beamhouse; through-the-blue; and shearling.

K054—Chrome (blue) shavings generated by the following subcategories of the leather tanning and finishing industry: hair pulp/chrome tan/retan/wet finish; hair save/chrome tan/retan/wet finish; retan/wet finish; no beamhouse; through-the-blue; and shearling.

K055—Buffing dust generated by the following subcategories of the leather tanning and finishing industry: hair pulp/chrome tan/retan/wet finish; hair save/chrome tan/retan/wet finish; retan/wet finish; no beamhouse; through-the-blue.

K056—Sewer screenings generated by the following subcategories of the leather tanning and finishing industry: hair pulp/chrome tan/retan/wet finish; hair save/chrome tan/retan/wet finish; retan/wet finish; no beamhouse; through-the-blue; and shearling.

K057—Wastewater treatment sludge generated by the following subcategories of the leather tanning and finishing industry: hair pulp/chrome tan/retan/wet finish; hair save/chrome tan/retan/wet finish; retan/wet finish; no beamhouse; through-the-blue; and shearling.

K058—Wastewater treatment sludges generated by the following subcategories of the leather tanning and finishing industry: hair pulp/chrome tan/retan/wet finish; hair save/chrome tan/retan/wet finish; and through-the-blue.

K059—Wastewater treatment sludges generated by the following subcategory of the leather tanning and finishing industry: hair save/non-chrome tan/retan/wet finish.

K074—Wastewater treatment sludges from the production of TiO_2 pigment using chromium-bearing ores by the chloride process.

[FR Doc. 80-33889 Filed 10-29-80; 8:45 am]
BILLING CODE 6560-30-M

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40 CFR Part 265

[SW FRL 1623-7]

Interim Status Standards for Owners and Operators of Hazardous Waste Treatment, Storage, and Disposal Facilities

AGENCY: Environmental Protection Agency (EPA).

ACTION: Revisions to final rule and interim final rule.

SUMMARY: The Resource Conservation and Recovery Act (RCRA) hazardous waste regulations, as promulgated May 19, 1980, in §§ 265.112(a) and 265.142(a) require owners or operators of all hazardous waste facilities to have closure plans, as well as cost estimates based on these plans, on the effective date of the regulations. At the same time, owners or operators of hazardous waste disposal facilities are also required in §§ 265.118(a) and 265.144(a) to have post-closure plans and associated cost estimates.

The Agency is amending these regulations to allow the owners or operators of all hazardous waste facilities to have up to six months *after* the effective date of these regulations to prepare a written closure plan, post-closure plan (if applicable), and cost estimates for closure and post-closure (if applicable).

The Agency is extending the period for preparing closure and post-closure plans for disposal facilities because planning for closure and post-closure at these facilities is an extremely important activity. Because these plans are so important, the Agency believes that it should provide owners or operators more time to prepare them so that they will be well thought out.

EFFECTIVE DATE: November 19, 1980.

FOR FURTHER INFORMATION CONTACT: Lawrence G. Buc, Office of Solid Waste (WH-565), U.S. Environmental Protection Agency, 401 M Street, S.W., Washington, D.C. 20460, (202) 755-9190.

SUPPLEMENTARY INFORMATION:

I. Authority

This amendment is issued under the authority of Sections 1006, 2002(a), and 3004 of the Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act of 1976 (RCRA), as amended, 42 U.S.C. 6905, 6912(a), and 6924.

II. Background

The RCRA hazardous waste regulations, as promulgated May 19, 1980, 45 FR 33064 *et seq.* in Sections 265.112(a) and 265.142(a) require owners or operators of all hazardous waste facilities to have closure plans, as well as cost estimates based on these plans, on the effective date of the regulations (November 19, 1980). At the same time, owners or operators of hazardous waste disposal facilities are also required in §§ 265.118(a) and 265.144(a) to have post-closure plans and associated cost estimates. The amendments to the regulations EPA is promulgating today modify these requirements.

The amended regulations allow the owner or operator of a hazardous waste facility up to May 19, 1981 (six months after the effective date of these regulations) to prepare a written closure plan, post-closure plan for a disposal facility, and cost estimates for closure and post-closure for a disposal facility. An owner or operator of a facility who decides to close his facility within this six-month period must nevertheless submit a closure plan and post-closure plan for a disposal facility at least 180 days before the date he expects to begin closure as required in 40 CFR Part 265, Subpart G, §§ 265.112(c) and 265.118(c).

The Agency is extending the period for preparing closure and post-closure plans for disposal facilities because planning for closure and post-closure at these facilities is an extremely important activity. Because these plans are so important, the Agency believes that it should provide owners or operators more time to prepare them so that they will be well thought out.

As a necessary consequence of extending the time for preparing closure and post-closure plans for facilities, EPA is extending the time for preparing closure and post-closure cost estimates for facilities. Cost estimates must be based on the closure and post-closure plans, so they cannot be prepared until the plans have been prepared.

The Office of Management and Budget recently approved EPA's Part 264 and 265 reporting requirements under the Federal Reports Act on the condition that EPA extend until May 19, 1981, the deadline by which disposal facilities (landfills, land treatment facilities, and surface impoundments which intend to close as landfills) must prepare closure and post-closure monitoring and maintenance plans. The Agency is convinced that owners or operators of *all* facilities, given an additional six months, will be able to prepare better plans and more accurate cost estimates. For this reason, and to avoid confusion as to when these plans are required, EPA is granting the time extension to all facilities.

Dated: October 27, 1980.

Douglas M. Costle,
Administrator

For the reasons described above, Title 40 of the Code of Federal Regulations is amended as follows:

§ 265.112 [Amended]

1. In § 265.112(a), in the first sentence, replace the phrase "On the effective date of these regulations" with the phrase: "On May 19, 1981."

§ 265.118 [Amended]

2. In § 265.118(a), in the first sentence, replace the phrase "On the effective date of these regulations" with the phrase: "On May 19, 1981."

§ 265.142 [Amended]

3. In § 265.142(a), in the first sentence, replace the phrase "On the effective date of these regulations" with the phrase: "On May 19, 1981."

§ 265.144 [Amended]

4. In § 265.144(a), in the first sentence, replace the phrase "On the effective date of these regulations" with the phrase: "On May 19, 1981."

[FR Doc. 80-33070 Filed 10-29-80; 8:45 am]
BILLING CODE 6560-30-M

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40 CFR Part 261

[WH-FRL 1648-4]

Hazardous Waste Management System: Identification and Listing of Hazardous Waste

AGENCY: Environmental Protection Agency (EPA).

ACTION: Technical amendment; final rule.

SUMMARY: In its regulations on the identification and listing of hazardous waste, the Environmental Protection Agency (EPA) is amending the section "Analytical Procedures for Analyzing Extract Contaminants" in Appendix II of Part 261. This amendment merely clarifies confusing references to two sets of analytical methods, each of which delineates the same methods insofar as the applicability of the subject section of Appendix II. Therefore, this amendment does not change the substance of Appendix II.

EFFECTIVE DATE: This action is effective immediately.

FOR FURTHER INFORMATION CONTACT: David Friedman, Office of Solid Waste (WH-565), U.S. Environmental Protection Agency, 401 M Street, S.W., Washington, D.C. 20460, (202) 755-9187.

SUPPLEMENTARY INFORMATION: The section on "Analytical Procedures for Analyzing Extract Contaminants" in Appendix II of Part 261 promulgated on May 19, 1980 (45 FR at 33128) referenced certain water and wastewater analytical methods and implied that these methods should be used in analyzing EP Toxicity Procedure extracts. That section also referenced "Test Methods for the Evaluation of Solid Waste, Physical/Chemical Methods" and implied that these methods should be used to analyze these same extracts. These

references to two sets of references have confused the regulated community and have generated many inquiries to the Agency for clarification. Because the latter reference incorporates and clarifies for use in analyzing EP extracts the methods described in the former references, EPA is today promulgating the following technical amendment to change the subject section of Appendix II so that only the latter reference is used.

Dated: October 24, 1980.

Douglas M. Costle,

Administrator.

Title 40 of the Code of Federal Regulations is amended by deleting the existing language under the section of Appendix II of Part 261 titled "*Analytical Procedures for Analyzing Extract Contaminants*" and substituting the following language:

The test methods for analyzing the extract are as follows:

(1) For arsenic, barium, cadmium, chromium, lead, mercury, selenium, silver, endrin, lindane, methoxychlor, toxaphene, 2,4-D[2,4-dichlorophenoxyacetic acid] or 2,4,5-TP [2,4,5-trichlorophenoxypropionic acid]: "Test Methods for the Evaluation of Solid Waste, Physical/Chemical Methods," [SW-846], U.S. Environmental Protection Agency, Office of Solid Waste, Washington, D.C. 20460.

(2) [Reserved]

For all analyses, the methods of standard addition shall be used for quantification of species concentration.

[FR Doc. 80-33871 Filed 10-29-80; 8:45 am]
BILLING CODE 6560-29-M

9442.1995(01)

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

January 26, 1995

Mr. Charles D. Duthler
ICI Composites, Inc.
2055 East Technology Circle
Tempe, AZ 85284

Dear Mr. Duthler:

This is in response to your letter of July 12, 1994, concerning the characterization of waste streams from polymeric coating operations. You stated that you are working on a project to ensure that waste streams from polymeric coating operations are properly characterized and you ask several questions related to these waste streams. We have addressed your questions in the discussions below. In some cases, the determinations you seek are based on site-specific factors and are best made by the appropriate regulatory agency (i.e., State, or EPA Region implementing the RCRA program for a particular State). Where applicable, we have provided general information to assist you in making your determinations, but we recommend that you contact other more appropriate offices for the determinations you seek.

1. How does a generator determine if his/her equipment qualifies as a manufacturing process unit?

As you have noted, the preamble language at 45 FR 72025, October 30, 1980, describes examples of manufacturing process units. These include "...distillation columns, flotation units, and discharge trays of screens..." The preamble language also describes these units as "tanks, or tank-like units (e.g., distillation units) which are designed to hold valuable products or raw materials in storage or transportation or during manufacturing." (45 FR 72025, October, 1980) A determination of whether the units you describe are manufacturing process units is best made by the regulatory agency (i.e., EPA region or State) implementing the RCRA program in the area of operation. In addition, States with authorized programs may impose more stringent requirements. For these reasons, consultation with the



State in which polymeric coating operations will take place is recommended.

2. If an ignitable residue is removed from a unit with a wiper, does the resulting waste carry the ignitability characteristic, or is the contaminated wiper to be evaluated to determine if it exhibits the characteristic? How does the mixture rule apply to wipers used to clean hazardous wastes?

A material that is a solid waste is by definition hazardous waste if it either 1) meets one of the listings in 40 CFR Part 261, Subpart D, or 2) exhibits one or more of the characteristics described in 40 CFR part 261, Subpart C. Because there are no explicit listings for "used wipers" in Part 261, Subpart D, a wiper can only be defined as listed hazardous waste if the wiper either contains listed waste, or is otherwise mixed with hazardous waste. Whether or not a wiper contains a listed hazardous waste, is mixed with listed hazardous waste, only exhibits a characteristic of hazardous waste, or is not a waste at all, will require site-specific determination. Any determinations or interpretations regarding this diverse and variable waste stream should be made by the appropriate State or EPA Region. We have enclosed a memo from Michael Shapiro to EPA Regional Waste Management Division Directors dated February 14, 1994, on the subject of industrial wipers and shop towels for your information.

3. What is the status of the proposed rule amending SW-846 to identify the technique suitable to determine if a material contains a liquid for an ignitability determination?

The proposed rule is still undergoing Agency review. Promulgation of the Agency's final ruling should occur in early 1995. In the interim, the Paint Filter test is the method to use to determine if a free liquid is present for ignitability determination.

4. How does a generator determine if his/her wastes exhibit the potential for spontaneous combustion?

No test method has been promulgated for "spontaneous combustion". It is the generator's responsibility to compare the properties of his waste with the narrative definition at 40 CFR §261.21(a)(2) and determine if the waste poses a hazard if improperly disposed. Also be aware that the U.S. Department of

9453.1989(05)

OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE

APR 21 1989

Mr. Stephen J. Axtell
Smith & Schnacke
2000 Courthouse Plaza NE
Post Office Box 1817
Dayton, Ohio 45401-1817

Dear Mr. Axtell:

This letter is in response to your letter of February 23, 1989, requesting clarification of the generator accumulation time requirements of 40 CFR 262.34. You ask when the accumulation time begins for an unknown waste that, upon analysis, is found to meet the definition of hazardous waste. Initially, the container was improperly labelled or not labelled at all. A sample of the contents was sent off site for analysis, and was found to be hazardous.

In your letter you relate that Chris Bryant of the RCRA Hotline indicated that the accumulation time for an unknown waste begins when the analytical results indicating that the waste is hazardous are received. Unfortunately, this information was incorrect. The correct reading of Section 262.34 in this instance follows:

Section 262.34(a) provides a limited exemption from the requirement that those who store hazardous waste must obtain permits. To obtain the exemption, a generator must comply with all the requirements of Section 262.34. If the date on which the accumulation began was not marked on the drum (Section 262.34(a)(2)) or the drum was not marked "Hazardous Waste" (Section 262.34(a)(3)), then the generator has not met the pre-conditions for the exemption from permitting requirements and is an operator of a storage facility subject to the requirements of 40 CFR Parts 264 and 265 and the permit requirements of 40 CFR Part 270.

Where a generator does meet the conditions of Section 262.34, the accumulation time begins when a waste is generated or when it is first taken from a "satellite" accumulation area operated pursuant to 40 CFR 262.34(c). Waste is generated either when it is produced or when it is first caused to be subject to regulation (40 CFR 260.10), not when a generator first analyzes the waste. If the waste in the drum was a listed or characteristic hazardous waste when it was produced, then the one-time 90-day accumulation time could begin only at the time the waste was produced or removed from the satellite accumulation area.



If the waste was not subject to regulation when it was first stores, e.g., the material had not yet been listed as a regulated hazardous waste, then the 90-day period would have begun when the waste became subject to regulation--upon the effective date of the new listing. A generator's failure to properly analyze, label, and accumulate waste does not exempt the waste from regulation.

If we can be of any further assistance, please contact Emily Roth at (202) 382-4777.

Sincerely,

Original Document signed

Sylvia K. Lowrance, Director
Office of Solid Waste

Transportation, at 49 CFR §173.124(b), discusses "spontaneously combustible material" and describes a Test Method for Materials Liable to Spontaneous Combustion in 49 CFR Part 173 Appendix E.

I hope this letter is of assistance. If you have further questions, please contact Ann Codrington at (202) 260-4777, or Oliver Fordham at (202) 260-4778.

Sincerely,

David Bussard, Director
Characterization and Assessment Division

FW: Site cleanup - 702 S Grape - Medford

John Early <jearly@wsenvironmental.com>

Wed 8/10/2016 10:22 AM

To: northwestpropertygroup@outlook.com <northwestpropertygroup@outlook.com>;

1 attachments (331 KB)

Site clean up - 702 S GRape - Medford.pdf;

Patricia,
Am I to assume that this is currently dead?

Regards,

John Early
541 770-2482 – Office
541 941-1697 – Mobile
541 772-0293 – Fax
www.wsenvironmental.com

From: John Early [mailto:jearly@wsenvironmental.com]
Sent: Friday, July 08, 2016 1:48 PM
To: northwestpropertygroup@outlook.com
Subject: Site cleanup - 702 S Grape - Medford

Patricia,
Attached please find our proposal for Medford Plating.
Certainly let me know if/when you have any questions.

Regards,

John Early
541 770-2482 – Office
541 941-1697 – Mobile
541 772-0293 – Fax
www.wsenvironmental.com

Western States Environmental Services, Inc.

July 8, 2016

General Properties Group, LLC
P{O Box 8158
Medford, OR 97501

Attn: Patricia Curtin Phone: 541 840-0410 e-mail: northwestpropertygroup@outlook.com

Re: 702 S Grape St, Medford – Medford Plating
Quote: 16-091

Western States Environmental Services, Inc. (WSES) proposes to supply all labor and equipment to access and quote hazardous materials disposal from an abandoned metal plating facility. Our bid includes the following major elements:

Phase I – Process Identification
1. Identify and document the main operational process.
2. Collect initial metal processing vat contents and Assess for metals, pH, and primary bath contents.

Phase II – Identify/access materials (liquid)
1. Specify contents by vat (bath) and generate inventory for disposal.
2. Provide proposal for disposal.

Our estimated price (work to be done on a time and materials basis) for the identified scope of work is:

TWENTY TWO THOUSAND DOLLARS ($22,000.00)

Notes:
1. Phase will utilize the expertise of a local plating expert.
2. Phase II will utilize the resources of a transport and disposal company to define and propose disposal requirements.
3. All laboratory analysis will be preceded by an estimated cost and approval by client prior to submittal.

Regards,
Western States Environmental Services, Inc.

John Early
President

Accepted by: _____ Date: _____

Terms: Net due and payable on completion of work. A finance charge of 1.5% (18% per year) will be added to any amount unpaid each 30 days after invoice date.

Western States
Environmental Services, Inc.

2016

SCHEDULE OF FEES – Labor

Standard Rates	UNIT	FEE ($)
Consultation (Including Principal or Environmental Professional as per ASTM 1527-05)	Hour	94.00
Project Manager & UST/HOT Supervisor	Hour	81.00
Asbestos, Hazmat and Construction Superintendent	Hour	72.00
Asbestos, Hazmat and construction Worker	Hour	57.00

Emergency response (within 24 hours), add 50% to the above rates.

Overtime rates, after 5:00PM, Monday through Friday and all day Saturday to be invoiced at 2 times. Sundays and Holidays to be invoiced at 2.5 times the above rates.

Mileage of company or employee owned vehicles which are directly related to the project will be invoiced at $0.51 per mile.

Markup
All costs except for labor to invoiced at cost plus 25% for Overhead, Profit and 2.5 % for Environmental insurance as required.

Notes:
1. **These prices good for the year 2016 only.**
2. **Minimum fee of $750 per callout for crew response.**
3. **Minimum 4 hours for UST / HOT individual response.**

Accepted by: _____ **Date:** _____

Billing Address: _____
_____
_____

Terms: Net due and payable on completion of work. A finance charge of 1.5% (18% per year) will be added to any amount unpaid each 30 days after invoice date.

P.O. Box 787 Medford, Oregon 97501 CCB# 158993 (541) 770-2482 Fax (541) 772-0293
www.wsenvironmental.com

RE: 702 S Grape St

John Early <jearly@wsenvironmental.com>

Wed 6/29/2016 9:35 AM

To:'Northwest Property Group LLC' <northwestpropertygroup@outlook.com>;

I contacted to local expert. We are visiting tomorrow to get a sense of what there is and to put a plan together after he sees the scope.

Regards,

John Early
541 770-2482 – Office
541 941-1697 – Mobile
541 772-0293 – Fax
www.wsenvironmental.com

From: Northwest Property Group LLC [mailto:northwestpropertygroup@outlook.com]
Sent: Monday, June 27, 2016 9:39 AM
To: John Early
Subject: Re: 702 S Grape St

Hi John,

I hope you are doing well. Please let me know what the company you made contact with said. Do you have a time frame? We want to do this as soon as possible. Thank you so much!

From: John Early <jearly@wsenvironmental.com>
Sent: Monday, June 27, 2016 9:31:14 AM
To: 'Northwest Property Group LLC'
Subject: RE: 702 S Grape St

I have made contact with a company who has experience for disposal, they have an expert for plating operations on staff. I have not gotten a call back from the local "expert", will continue to pursue.

Regards,

John Early
541 770-2482 – Office
541 941-1697 – Mobile
541 772-0293 – Fax
www.wsenvironmental.com

From: Northwest Property Group LLC [mailto:northwestpropertygroup@outlook.com]
Sent: Friday, June 24, 2016 6:15 PM
To: John Early
Subject: Re: 702 S Grape St

Hi John,

I hope you are doing well. I just wanted to check on the status of 702 S Grape St. Please call (541) 292-0433 or email me. Thank you so much!

From: Northwest Property Group LLC
Sent: Thursday, June 16, 2016 11:14:20 AM
To: John Early
Subject: Re: 702 S Grape St

Hi John,

Lockbox code is AML. Thank you!

From: John Early <jearly@wsenvironmental.com>
Sent: Wednesday, June 15, 2016 2:15:22 PM
To: 'Northwest Property Group LLC'
Subject: RE: 702 S Grape St

I would not think so but we'll see.
How do I get access.
A set of keys would be preferable due to likely multiple visits.

Regards,

John Early
541 770-2482 – Office
541 941-1697 – Mobile
541 772-0293 – Fax
www.wsenvironmental.com

From: Northwest Property Group LLC [mailto:northwestpropertygroup@outlook.com]
Sent: Tuesday, June 14, 2016 7:40 PM
To: jearly@wsenvironmental.com
Subject: 702 S Grape St

Hi John,

I hope you are doing well. Attached is the fee schedule. Please bill us weekly. Do you think the person in Grants Pass you mentioned would be interested in purchasing the chemicals? Thank you so much.

Re: Schedule of Fees 2016

OH Co <opropc@hotmail.com>

Tue 6/14/2016 12:43 PM

To:Northwest Property Group LLC <northwestpropertygroup@outlook.com>;

Tell him to bill us weekly.

From: Northwest Property Group LLC <northwestpropertygroup@outlook.com>
Sent: Tuesday, June 14, 2016 11:55 AM
To: opropc@hotmail.com
Subject: Fw: Schedule of Fees 2016

Northwest Property Group LLC
Shon Tay Professional Building
15800 SW Boones Ferry Rd, Ste A-3
Lake, Oswego, OR 97035
(541) 951-1146

From: John Early <jearly@wsenvironmental.com>
Sent: Monday, June 13, 2016 12:52 PM
To: northwestpropertygroup@outlook.com
Subject: Schedule of Fees 2016

Patty,
Attached please find our schedule of fees for the project @ 702 S Grape.
Please sign and return and we will get started.
I will put together an assessment plan to get you started and once we have some idea of the initial costs will let you know prior to sample collection and analysis.

Regards,

John Early
541 770-2482 – Office
541 941-1697 – Mobile
541 772-0293 – Fax
www.wsenvironmental.com

Western States
Environmental Services, Inc.

2016

SCHEDULE OF FEES – Labor

Standard Rates	UNIT	FEE ($)
Consultation (Including Principal or Environmental Professional as per ASTM 1527-05)	Hour	94.00
Project Manager & UST/HOT Supervisor	Hour	81.00
Asbestos, Hazmat and Construction Superintendent	Hour	72.00
Asbestos, Hazmat and construction Worker	Hour	57.00

Emergency response (within 24 hours), add 50% to the above rates.

Overtime rates, after 5:00PM, Monday through Friday and all day Saturday to be invoiced at 2 times, Sundays and Holidays to be invoiced at 2.5 times the above rates.

Mileage of company or employee owned vehicles which are directly related to the project will be invoiced at $0.51 per mile.

Markup
All costs except for labor to invoiced at cost plus 25% for Overhead, Profit and 2.5 % for Environmental insurance as required.

Notes:
1. **These prices good for the year 2016 only.**
2. **Minimum fee of $750 per callout for crew response.**
3. **Minimum 4 hours for UST / HOT individual response.**

Accepted by: _____ **Date:** _____

Billing Address: General Properties Group LLC
PO Box 8158
Medford, OR 97501

TERMS: Net due and payable on completion of work. A finance charge of 1.5% (18% per year) will be added to any amount unpaid after 30 days of invoice date.

Oregon
Kate Brown, Governor

Department of Environmental Quality
Headquarters
811 SW 6th Ave
Portland, OR 97204-1390
(503) 229-5696
FAX (503) 229-6124
TTY: 711

October 6, 2016

General Property Management, LLC
Kevin J. Curtin, Registered Agent
15800 SW Boones Ferry Road, Suite A-3
Lake Oswego, OR 97035

RE: Remedial Action Order
Case no. LQ/HW-WR-2016-134

Dear Mr. Curtin:

On September 16, 2016, General Property Management was served with a Remedial Action Order that requires it to provide to DEQ prior to October 7, 2016 a plan which addresses the following:

- Actions which will be taken to characterize all of the items at the facility listed in Section III, paragraph 4 of the Order; and
- Actions which will be taken to transport and dispose of all identified solid and hazardous waste.

Yesterday, DEQ received a request for an extension to comply with those requirements. DEQ, by this letter, hereby amends Section V, paragraph 2.D.ii of the Order by extending that deadline until the close of business on October 28, 2016.

If you have any questions concerning compliance under the Order, please contact Dan Lobato at 5416867998.

Sincerely,

Sarah G. Wheeler, Acting Manager
Office of Compliance and Enforcement

cc: Scott Pieper, SMAF Environmental, 2260 NW Industrial Park Rd, Prineville OR 97754

Re: Notification Form

Patricia Curtin

Wed 10/19/2016 12:35 PM

Sent Items

To: Scott Pieper <rscottp@whhsmaf.com>;

1 attachments (1 MB)

702 S Grape St DEQ form (SP) R.pdf;

Hi Scott,

I hope you are doing well. Attached is the DEQ form. I have not sent it to anyone. Thank you so much.

Sincerely,

Patricia

From: Scott Pieper <rscottp@whhsmaf.com>
Sent: Monday, October 17, 2016 9:30:58 AM
To: Patricia Curtin
Subject: Re: Notification Form

Hi Patricia,
Did you have any questions on the form? Has it been sent to DEQ?
Please send me a copy for my records. I will need some of the information for the waste profiles at the disposal site.
Regards,

> On October 6, 2016 at 3:18 PM Patricia Curtin <Patricia_Curtin@hotmail.com> wrote:
>
> Hi Scott,
>
> I will get this taken care of asap. Thank you.
>
> Patricia
>
> ---
>
> **From:** Scott Pieper <rscottp@whhsmaf.com>
> **Sent:** Thursday, October 6, 2016 3:14:26 PM
> **To:** patricia_curtin@hotmail.com
> **Subject:** Notification Form
>
> Hi Patricia,
> I have filled out the areas that are appropriate. Please fill out sections 3b 4b 5b 6b 7b and 9b, then sign and send in or send to me and I will e-mail it. Any information that is correct on the left side does not need to be repeated on the right.
> This information must be on file before we can begin.
> Please let me know if you have any questions.
> Making progress!

R. Scott Pieper, R.G.

60

Environmental Services Manager
SMAF Environmental LLC
2260 NW Industrial Park Road
Prineville, OR 97754
(800) 875-7069 24-hour Spill Response Hotline
(541) 447-5643 Office
(541) 233-7830 Mobile

RCRA Waste Site Identification Form

Site ID

State of Oregon Department of Environmental Quality
Accounting Section
811 SW Sixth Avenue, Portland, OR 97204-1390
Questions: (503)229-6938 in Portland, OR or toll free in Oregon: (800)452-4011 Ext. 6938
Fax: (503)229-6977
TTY: (800)735-2900
Email: hazwaste@deq.state.or.us
Web site: www.DeqHazwaste.Net

State of Oregon Department of Environmental Quality

1. Reason for Submittal

- [x] To provide **New** Notification of Regulated Waste Activity (complete entire form)
  - [ ] Initial Notification ($200 non-refundable fee required)
  - [x] Change in business ownership (represent the new owner) (No fee required)
  - [ ] Reactivation of RCRA Site ID Number (no fee required)
- [ ] To provide **Revised** Site Identification Information
- [ ] To **Withdraw** Site Identification Number
  - [ ] Completion of RCRA waste activity
  - [ ] Change in business ownership (represent the old owner) Effective Date:
- [ ] To provide as a component of the **Annual Hazardous Waste Report** (skip section 11, 12, and 13)
  Reporting Year: If ownership changed: [ ] Filing for entire year [ ] Filing for partial year
- [ ] To provide as a component of the **Universal Waste or Used Oil Annual Report** (skip sections 10 and 11)
  Reporting Year.

2. RCRA Site ID Number: ORD987201480

3a. Site Location Information

Company Name: Medford Plating Inc
Site Location: 702 S GRAPE ST
MEDFORD, OR 97501
County: JACKSON
Corp. Div. Reg. Nbr.: 097071-18
NAICS Code: 332813
Employee Count: 6

3b.

Company Name: None
Site Location: 702 S Grape St
City/State/Zip: Medford, OR 97501
County: Jackson
Corp. Div. Reg. Nbr.:
NAICS Code:
Employee Count: 0

4a. Site Contact

Person Name: Jesse Lackey
Mailing Address: 702 South Grape St
Medford, OR 97501
Country: UNITED STATES
Phone Number (Ext): 541 773 6969
Email Address: medfordplatinginc@hotmail.com

4b.

Person Name: General Property Group LLC
Mailing Address: P.O. Box 8158
City/State/Zip: Medford OR 97501
Country: United States
Phone Number (Ext): 541-951-1146
Email Address: agrape@hotmail.com

5a. Land Owner

Name: Medford Plating Inc
Mailing Address: 702 South Grape Street
Medford, OR 97501
Country: UNITED STATES
Phone Number (Ext): (541) 773-6969
Owner Type: Private

5b.

Name: General Property Group LLC
Mailing Address: P.O. Box 8158
City/State/Zip: Medford OR 97501
Country: United States
Phone Number (Ext): 541-951-1146
Owner Type: [x] Private [ ] Federal [ ] State [ ] County [ ] District [ ] Municipal [ ] Tribal [ ] Other

RCRA Waste Site Identification Form

Site ID

RCRA Site ID Number: ORD987201480

8a. Legal Owner

Name: Steve McGhehay
Mailing Address: 652 N Aylor Ct
Sisters, OR 97759
Country: UNITED STATES
Phone Number (Ext): 541 549-6754
Owner Since: 08/01/2010
Owner Type: Private

8b.

Name: General Property Group LLC
Mailing Address: P.O. Box 8158
City/State/Zip: Medford OR 97501
Country: United States
Phone Number (Ext): 541-951-1146
Owner Since: 11/3/15
Owner Type: ☒ Private ☐ Federal ☐ State ☐ County ☐ District ☐ Municipal ☐ Tribal ☐ Other

7a. Site Operator

Name: Jesse Lackey
Mailing Address: 702 South Grape Street
Medford, OR 97501
Country: UNITED STATES
Phone Number (Ext): (541) 773-6969
Operator Since: 09/01/2010
Operator Type: Private

7b.

Name: None
Mailing Address:
City/State/Zip:
Country:
Phone Number (Ext):
Operator Since:
Operator Type: ☒ Private ☐ Federal ☐ State ☐ County ☐ District ☐ Municipal ☐ Tribal ☐ Other

9a. Hazardous Waste Forms Contact

Person Name: Jesse Lackey
Organization: Medford Plating Inc
Mailing Address: 702 South Grape St
Medford, OR 97501
Country: UNITED STATES
Phone Number (Ext): 541 773 6969
Email Address: medfordplatinginc@hotmail.com

9b.

Person Name: Scott Pieper
Organization: SMAF Environmental LLC
Mailing Address: PO Box 672
City/State/Zip: Prineville, OR 97754
Country: Crook
Phone Number (Ext): (541) 447-5643
Email Address: rscottp@whhsmaf.com

8a. Hazardous Waste Fee Contact

Person Name: Jesse Lackey
Organization: Medford Plating Inc
Mailing Address: 702 South Grape St
Medford, OR 97501
Country: UNITED STATES
Phone Number (Ext): 541 773 6969
Email Address: medfordplatinginc@hotmail.com

8b.

Person Name:
Organization: General Property Group LLC
Mailing Address: P.O Box 8158
City/State/Zip: Medford OR 97501
Country: United States
Phone Number (Ext): 541-951-1146
Email Address: oprosac@hotmail.com

RCRA Waste Site Identification Form

Site ID

RCRA Site ID Number: ORD987201480

10. Hazardous Waste Activities (Mark the appropriate boxes for activities that apply to your site)

1. Generator of Hazardous Waste

- [x] a. LQG: Large Quantity Generator (Generates greater than 2,200 lbs/mo or more than 2.2 lbs of acute hazardous waste)
- [ ] b. SQG: Small Quantity Generator: (Generates between 220-2,200 lbs/mo or more than 2,200 lbs accumulated on-site)
- [ ] c. CEG: Conditionally Exempt Generator: (Generates between 0-220 lbs/mo, less than 2.2 lbs of acute hazardous waste and less than 2,200 lbs accumulated on-site)

2. Are you a hazardous waste generator due to remediation of environmental contamination or a business closure?

- [x] Yes
- [ ] No

If yes, find out about expedited annual reporting at: www.deq.state.or.us/wmc/hw/factsheets/HWFeesForCleanups.pdf

- [ ] **3. Importer of Hazardous Waste**
- [ ] **4. Generator of Mixed Waste (hazardous and radioactive)**

5. Transporter of Hazardous Waste

- [ ] a. Transports hazardous waste generated at this facility
- [ ] b. Transports for commercial purposes
- [ ] c. Hazardous Waste Transfer Facility

- [ ] **6. Treatment, Storage, Disposal (TSD) Facility**
  (Note: A RCRA Permit is required for this activity)

7. Recycler of Hazardous Waste

- [ ] a. Recycles HW generated at this facility
- [ ] b. Recycles HW generated by other facilities

8. Hazardous waste management in RCRA permit exempt units (e.g. elementary neutralization units, waste water treatment units, or accumulation tanks or containers)

- [ ] a. Manages HW generated at this facility
- [ ] b. Manages HW generated by other facilities

9. Exempt Boiler and/or Industrial Furnace

- [ ] a. Small Quantity On-Site Burner Exemption
- [ ] b. Smelting, Melting, Refining Furnace Exemption

- [ ] **10. Underground Injection Control**

If yes, there may be addition reporting requirements at: www.deq.state.or.us/wq/groundwa/uichome.htm

11. Description of Hazardous Wastes

1. Waste Codes for Federally Regulated Hazardous Wastes: Identify the federal hazardous waste codes that best describe your waste (e.g., D001 - Ignitable, D002 - Corrosive, D003 - Reactive, etc.) List additional federal codes in the comments section.

D002, D007, D008

2. Waste Codes for State Regulated(i.e., non-federal) Hazardous Wastes: Identify the Oregon state-only hazardous waste codes that best describe your waste (e.g., ORX001, ORX007, ORP003, ORU001, etc.)

12. Universal Waste Activities (Mark the appropriate boxes for activities that apply to your site)

- [ ] **1. Large Quantity Handler of Universal Waste**
  (Accumulates a total of 11,000 lbs. or more of universal waste at any time, at the location at which it was generated)
- [ ] **2. Off-site Universal Waste Collection Site**
  (Accumulates a total of 2,200 lbs. or more of universal waste received from off-site). If yes, there are additional notification requirements at: www.deq.state.or.us/wmc/documents/uwnotification.pdf
- [ ] **3. Pesticide Collection Program**
  (Collects and accumulates waste pesticides from off-site). If yes, there are additional notification requirements at: www.deq.state.or.us/wmc/documents/uwnotification.pdf
- [ ] **4. Destination Facility for Universal Waste**
  (A facility that treats, disposes of, or recycles universal wastes on-site)

5. Mark all boxes that apply

	Generate	Accumulate
a. Batteries	☐	☐
b. Mercury containing equipment	☐	☐
c. Lamps	☐	☐
d. Pesticides	☐	☐

13. Used Oil Activities (Mark the appropriate boxes for activities that apply to your site)

- [ ] **1. Used Oil Collection Center**
- [ ] **2. Used Oil Transporter**
- [ ] **3. Used Oil Transfer Facility**

4. Used Oil Processor/Re-refiner

Indicate type(s) of activity(s)

- [ ] a. Processor
- [ ] b. Re-refiner

- [ ] **5. Off-Specification Used Oil Burner (not used oil space heaters operating according to CFR 279.23)**

6. Used Oil Fuel Marketer

Indicate type(s) of activity(s)

- [ ] a. Marketer who directs shipments of off-specification used oil to off-specification used oil burner
- [ ] b. Marketer who first claims the used oil to meet the specifications

RCRA Waste Site Identification Form

Site ID

RCRA Site ID Number: ORD987201480

14. Comments

15. Certification — This form cannot be processed without a signature

I certify that under penalty of law that I have personally examined and am familiar with the information submitted in this demonstration and all attached documents, and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

Manager

Signature

10/15/16

Date

Kevin Curtin as manager of General Property Group LLC

Name (print or type)

Manager of General Property Group LLC

Title

If you have special accommodation needs or require this documentin an alternative format, please contact the Hazardous Waste Section in Portland at 503-229-6938 or toll-free within the State of Oregon at 1-800-452-4011, extension 6938.

16. Electronic Submittals

DEQ will issue a PIN number and electronic filing instructions in a letter addressed to the Forms Contact in Section 8 on this form. The electronic reporting system may be used for your company's annual reporting and site identification updates.

RE: New Ownership RCRA SI Form

MAYES Edna D <edna.d.mayes@state.or.us>

Fri 10/21/2016 1:11 PM

To: 'Scott Pieper' <rscottp@whhsmaf.com>; MAYES Edna D <edna.d.mayes@state.or.us>;

Cc: patricia_curtin@hotmail.com <patricia_curtin@hotmail.com>;

Hi Scott,

You may use the site names as Former Medford Plating Inc, and the NAICS for remediation clean out is 562910. 7a can be noted as same as 3a. Thanks.

Sincerely,

Edna D. Mayes

Edna D. Mayes
Hazardous Waste Data/Invoicing Specialist
ODEQ Operations
503.229-6938

This November, DEQ's Headquarters Office will be moving to a new location - the 700 Lloyd Building at 700 NE Multnomah St., Suite #600, Portland, OR 97232. The target date for operating at the new location is November 7th, 2016.

From: Scott Pieper [mailto:rscottp@whhsmaf.com]
Sent: Friday, October 21, 2016 6:15 AM
To: MAYES Edna D
Cc: patricia_curtin@hotmail.com
Subject: RE: New Ownership RCRA SI Form

Hi Edna,

The site is closed, in the process of being cleaned up. There are currently no operations. That is why the site operator is blank. I will fill it in and have it re-sent directly to you.

Do we use the same NAICS code, if the property is closed?

Thank you,

> On October 20, 2016 at 6:24 PM MAYES Edna D <edna.d.mayes@state.or.us> wrote:
>
> Hi Scott,

The Department of Environmental Quality requires the hard copy with the original signature on the RCRA Waste Site ID Form mailed in. Block 3 need the site name provided, Naics and block 7 needs the operator of site or responsible party (normally the same as listed in block 6). Thanks.

Sincerely,

Edna D. Mayes

Edna D. Mayes

Hazardous Waste Data/Invoicing Specialist

ODEQ Operations

503 229-6938

This November, DEQ's Headquarters Office will be moving to a new location - the 700 Lloyd Building at 700 NE Multnomah St., Suite #600, Portland, OR 97232. The target date for operating at the new location is November 7th, 2016.

From: Scott Pieper [mailto:rscottp@whhsmaf.com]
Sent: Thursday, October 20, 2016 11:03 AM
To: MAYES Edna D
Cc: LOBATO Dan
Subject: Re: New Ownership RCRA SI Form

Hi Edna.

Here is the completed, signed form for the change of ownership at Medford Metals.

Thank you,

> On October 6, 2016 at 2:57 PM MAYES Edna D <edna.d.mayes@state.or.us> wrote:
>
> Hi Scott,

Per your request please find attached Pre-Printed Site ID Form to change ownership at Medford Plating. Thanks.

Sincerely,

Edna D. Mayes

Edna D. Mayes

Hazardous Waste Data/Invoicing Specialist

ODEQ Operations

503 229-6938

This November, DEQ's Headquarters Office will be moving to a new location - the 700 Lloyd Building at 700 NE Multnomah St., Suite #600, Portland, OR 97232. The target date for operating at the new location is November 7th, 2016.

NEILSON RESEARCH CORPORATION

Environmental Testing Laboratory

10/24/2016

Scott Pieper
SMAF Environmental
PO Box 672
Prineville, OR 97754
TEL: (541) 233-7830
FAX (541) 447-2190

RE: Medford Metals

Order No.: 1610373

Dear Scott Pieper:

Neilson Research Corporation received 2 sample(s) on 10/11/2016 for the analyses presented in the following report.

The results relate only to the parameters tested or to the sample as received by the laboratory. This report shall not be reproduced except in full, without the written approval of Neilson Research Corporation. If you have any questions regarding these test results, please feel free to call.

Sincerely,
Neilson Research Corporation

Alec C Smith
Project Manager

Neilson Research Corporation

245 South Grape Street, Medford, Oregon 97501 541-770-5678 Fax 541-770-2901

Analysis Report

ORELAP 100016
EPA OR00028

CLIENT: SMAF Environmental
Project: Medford Metals
Lab Order: 1610373

Date: 24-Oct-16

CASE NARRATIVE

The analyses were performed according to the guidelines in the Neilson Research Corporation Quality Assurance Program. This report contains analytical results for the sample(s) as received by the laboratory.

Neilson Research Corporation certifies that this report is in compliance with the requirements of NELAP. No unusual difficulties were experienced during analysis of this batch except as noted below or qualified with data flags on the reports.

Neilson Research Corporation

245 South Grape Street, Medford, Oregon 97501 541-770-5678 Fax 541-770-2901

Analysis Report ORELAP 100016 EPA OR00028

SMAF Environmental
PO Box 672
Prineville, OR 97754
Client Sample ID: **Medford Metals A East**
Sample Location: **18" Deep/36" Wide**
Project: **Medford Metals**

Lab Order: **1610373**
NRC Sample ID **1610373-01**
Collection Date: **10/11/2016 9:52:00 AM**
Received Date: **10/11/2016 10:25:00 AM**
Reported Date: **10/24/2016 2:33:01 PM**
Matrix: **Aqueous**

ANALYTICAL RESULTS

Analyses	NELAP Accredited	Result	Qual	MRL	Units	Dilution Factor	Date Analyzed
Trace Metals by EPA 7470A							*Analyst: BAR*
Mercury	A	**ND**		0.0002	mg/L	1	10/21/2016
Trace Metals ICP by EPA 6010B							*Analyst: BAR*
Arsenic	A	**ND**		0.05	mg/L	1	10/19/2016
Barium	A	**0.126**		0.1	mg/L	1	10/19/2016
Cadmium	A	**0.00690**		0.001	mg/L	1	10/19/2016
Chromium	A	**0.291**		0.005	mg/L	1	10/19/2016
Lead	A	**0.0830**		0.05	mg/L	1	10/19/2016
Nickel	A	**4.65**		0.005	mg/L	1	10/19/2016
Selenium	A	**ND**		0.05	mg/L	1	10/19/2016
Silver	A	**ND**		0.001	mg/L	1	10/19/2016
Zinc	A	**0.650**		0.05	mg/L	1	10/19/2016

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
* - Value exceeds Maximum Contaminant Level
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
MRL - Minimum Reporting Limit

Neilson Research Corporation

245 South Grape Street, Medford, Oregon 97501 541-770-5678 Fax 541-770-2901

Analysis Report

ORELAP 100015
EPA OR00028

SMAF Environmental
PO Box 672
Prineville, OR 97754
Client Sample ID: **Medford Metals B West**
Sample Location: **24" Deep/36" Wide**
Project: **Medford Metals**

Lab Order: **1610373**
NRC Sample ID **1610373-02**
Collection Date: **10/11/2016 9:58:00 AM**
Received Date: **10/11/2016 10:25:00 AM**
Reported Date: **10/24/2016 2:33:01 PM**
Matrix: **Aqueous**

ANALYTICAL RESULTS

Analyses	NELAP Accredited	Result	Qual	MRL	Units	Dilution Factor	Date Analyzed
Trace Metals by EPA 7470A							*Analyst: BAR*
Mercury	A	ND		0.0002	mg/L	1	10/21/2016
Trace Metals ICP by EPA 6010B							*Analyst: BAR*
Arsenic	A	ND		0.05	mg/L	1	10/19/2016
Barium	A	ND		0.1	mg/L	1	10/19/2016
Cadmium	A	0.00550		0.001	mg/L	1	10/19/2016
Chromium	A	0.227		0.005	mg/L	1	10/19/2016
Lead	A	ND		0.05	mg/L	1	10/19/2016
Nickel	A	2.27		0.005	mg/L	1	10/19/2016
Selenium	A	ND		0.05	mg/L	1	10/19/2016
Silver	A	ND		0.001	mg/L	1	10/19/2016
Zinc	A	0.410		0.05	mg/L	1	10/19/2016

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
* - Value exceeds Maximum Contaminant Level
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
MRL - Minimum Reporting Limit

Neilson Research Corporation

Date: 24-Oct-16

CLIENT: SMAF Environmental
Work Order: 1610373
Project: Medford Metals

ANALYTICAL QC SUMMARY REPORT

TestCode: HG_W_7470

Sample ID	MB-36841	SampType:	MBLK	TestCode:	HG_W_7470	Units:	mg/L	Prep Date:	10/20/2016	RunNo:	90783
Client ID:	ZZZZZ	Batch ID:	36841	TestNo:	EPA 7470A	(EPA 245.1/7		Analysis Date:	10/21/2016	SeqNo:	1375375

Analyte	Result	MRL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	ND	0.000200									

Sample ID	LCS-36841	SampType:	LCS	TestCode:	HG_W_7470	Units:	mg/L	Prep Date:	10/20/2016	RunNo:	90783
Client ID:	ZZZZZ	Batch ID:	36841	TestNo:	EPA 7470A	(EPA 245.1/7		Analysis Date:	10/21/2016	SeqNo:	1375376

Analyte	Result	MRL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.005302	0.000200	0.005	0	106	80	120				

Sample ID	1610373-02AMS	SampType:	MS	TestCode:	HG_W_7470	Units:	mg/L	Prep Date:	10/20/2016	RunNo:	90783
Client ID:	Medford Metals B W	Batch ID:	36841	TestNo:	EPA 7470A	(EPA 245.1/7		Analysis Date:	10/21/2016	SeqNo:	1375379

Analyte	Result	MRL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.004915	0.000200	0.005	0	98.3	75	125				

Sample ID	1610373-02AMSD	SampType:	MSD	TestCode:	HG_W_7470	Units:	mg/L	Prep Date:	10/20/2016	RunNo:	90783
Client ID:	Medford Metals B W	Batch ID:	36841	TestNo:	EPA 7470A	(EPA 245.1/7		Analysis Date:	10/21/2016	SeqNo:	1375380

Analyte	Result	MRL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.005109	0.000200	0.005	0	102	75	125	0.004915	3.87	20	

Item H 000590

Qualifiers:

E Value above quantitation range
H Holding times for preparation or analysis exceeded
J Analyte detected below quantitation limits
ND Not Detected at the Minimum Reporting Limit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

Neilson Research Corporation

Date: 24-Oct-16

CLIENT: SMAF Environmental
Work Order: 1610373
Project: Medford Metals

ANALYTICAL QC SUMMARY REPORT

TestCode: ICP_6010_W

Sample ID	MB-36817	SampType:	MBLK	TestCode:	ICP_6010_W	Units:	mg/L	Prep Date:	10/19/2016	RunNo:	90715
Client ID:	ZZZZZ	Batch ID:	36817	TestNo:	EPA 6010B	(EPA 3010A)		Analysis Date:	10/19/2016	SeqNo:	1374270

Analyte	Result	MRL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	ND	0.0500									
Barium	ND	0.100									
Cadmium	ND	0.00100									
Chromium	ND	0.00500									
Lead	ND	0.0500									
Nickel	ND	0.00500									
Selenium	ND	0.0500									
Silver	ND	0.00100									
Zinc	ND	0.0500									

Sample ID	LCS-36817	SampType:	LCS	TestCode:	ICP_6010_W	Units:	mg/L	Prep Date:	10/19/2016	RunNo:	90715
Client ID:	ZZZZZ	Batch ID:	36817	TestNo:	EPA 6010B	(EPA 3010A)		Analysis Date:	10/19/2016	SeqNo:	1374271

Analyte	Result	MRL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	0.9600	0.0500	1	0	96.0	85	115				
Barium	0.9634	0.100	1	0	96.3	85	115				
Cadmium	0.9729	0.00100	1	0	97.3	85	115				
Chromium	0.9639	0.00500	1	0	96.4	85	115				
Lead	0.9702	0.0500	1	0	97.0	85	115				
Nickel	0.9621	0.00500	1	0	96.2	85	115				
Selenium	0.9529	0.0500	1	0	95.3	85	115				
Silver	0.9629	0.00100	1	0	96.3	85	115				

Sample ID	1610373-02AMS	SampType:	MS	TestCode:	ICP_6010_W	Units:	mg/L	Prep Date:	10/19/2016	RunNo:	90715
Client ID:	Medford Metals B W	Batch ID:	36817	TestNo:	EPA 6010B	(EPA 3010A)		Analysis Date:	10/19/2016	SeqNo:	1374274

Analyte	Result	MRL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	0.9451	0.0500	1	0	94.5	70	130				
Barium	0.9858	0.100	1	0.078	90.8	70	130				

Qualifiers:
E Value above quantitation range
H Holding times for preparation or analysis exceeded
J Analyte detected below quantitation limits
ND Not Detected at the Minimum Reporting Limit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

Neilson Research Corporation

Date: 24-Oct-16

CLIENT: SMAF Environmental
Work Order: 1610373
Project: Medford Metals

ANALYTICAL QC SUMMARY REPORT

TestCode: ICP_6010_W

Sample ID	1610373-02AMS	SampType:	MS	TestCode:	ICP_6010_W	Units:	mg/L	Prep Date:	10/19/2016	RunNo:	90715
Client ID:	Medford Metals B W	Batch ID:	36817	TestNo:	EPA 6010B	(EPA 3010A)		Analysis Date:	10/19/2016	SeqNo:	1374274

Analyte	Result	MRL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Cadmium	0.9298	0.00100	1	0.0055	92.4	70	130				
Chromium	1.134	0.00500	1	0.2266	90.7	70	130				
Lead	0.9202	0.0500	1	0.0257	89.4	70	130				
Nickel	3.112	0.00500	1	2.274	83.8	70	130				
Selenium	0.9260	0.0500	1	0.0037	92.2	70	130				
Silver	0.9027	0.00100	1	0	90.3	70	130				
Zinc	1.337	0.0500	1	0.4101	92.7	70	130				

Sample ID	1610373-02AMSD	SampType:	MSD	TestCode:	ICP_6010_W	Units:	mg/L	Prep Date:	10/19/2016	RunNo:	90715
Client ID:	Medford Metals B W	Batch ID:	36817	TestNo:	EPA 6010B	(EPA 3010A)		Analysis Date:	10/19/2016	SeqNo:	1374275

Analyte	Result	MRL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	0.9620	0.0500	1	0	96.2	70	130	0.9451	1.77	20	
Barium	1.000	0.100	1	0.078	92.2	70	130	0.9858	1.43	20	
Cadmium	0.9458	0.00100	1	0.0055	94.0	70	130	0.9298	1.71	20	
Chromium	1.153	0.00500	1	0.2266	92.6	70	130	1.134	1.66	20	
Lead	0.9730	0.0500	1	0.0257	94.7	70	130	0.9202	5.58	20	
Nickel	3.157	0.00500	1	2.274	88.3	70	130	3.112	1.44	20	
Selenium	0.9465	0.0500	1	0.0037	94.3	70	130	0.926	2.19	20	
Silver	0.9175	0.00100	1	0	91.8	70	130	0.9027	1.63	20	
Zinc	1.356	0.0500	1	0.4101	94.6	70	130	1.337	1.41	20	

Item H 000592

Qualifiers:
E Value above quantitation range
H Holding times for preparation or analysis exceeded
J Analyte detected below quantitation limits
ND Not Detected at the Minimum Reporting Limit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

NELSON RESEARCH CORPORATION
Environmental Testing Laboratory
[illegible]

Chain of Custody Record

This Chain of Custody is a LEGAL DOCUMENT and must be filled out accurately.

Page ___ of ___

Section A
Required Client Information

Company:	[illegible]
Address:	[illegible]
	[illegible]
Email:	
Phone: [illegible]	Fax:
Collected By (Print):	[illegible]
Collected By (Sign):	[illegible]
Email Report ___ Yes ___ No	Mail Report: ___ Yes ___ No
Fax Report ___ Yes ___ No	

Section B
Required Project Information

Project Name:	[illegible]
Project Number:	
Report To:	[illegible]
Copy To:	

Section C
Invoice Information

Attention:	
Company Name:	
Address:	
P.O. #	

Section D
Rush Status (Subject to Scheduling)

___ Standard (10-14 Days)
___ 5 Business Days (50% surcharge)
___ 3 Business Days (75% surcharge)
___ 24 - 48 hours (100% surcharge)
___ Other ___

Authorized ___ Yes ___ No

Section E
Sample Information

Sample ID	Comp/Grab	Matrix*	Date Collected	Time Collected	No. of Containers	Analysis Requested										NRC Workorder # (Lab Use Only) 1610373 Remarks/Field Data	NRC Sample # (Lab Use Only)
A			[illegible]	[illegible]	1	✓	✓	✓									01
B			[illegible]	[illegible]	1	✓	✓	✓									02

*Matrix: DW - Drinking Water WW - Wastewater W - Water S - Soil/Solid SL - Sludge O - Oil WP - Wipe OT - Other

Section F
Relinquish/Receive

	Sign	Print	Date	Time
Relinquished By:	[illegible]	[illegible]	[illegible]	[illegible]
Received By:				
Relinquished By:				
Received By:				
Relinquished By:				
Received By Laboratory:	[illegible]	[illegible]	[illegible]	[illegible]

Section G
Lab Use Only

Temp:	[illegible]
4°C +/- 2°C:	___ Yes ___ No
Received on Ice:	___ Yes ___ No
Number of Bottles Received:	[illegible]
pH Checked:	[illegible]
COC Seals Intact:	___ Yes ___ No ___ NA
Field Blank Included:	___ Yes ___ No

Received Via ___ UPS ___ FedEX ___ Other ___ Hand

Payment: ___ Invoice ___ Cash ___ VISA, M/C ___ Check # ___ Amount ___

FW: Medford Metals Sump testng

LOBATO Dan <dan.lobato@state.or.us>

Thu 10/27/2016 8:08 AM

To:'Scott Pieper' <rscottp@whhsmaf.com>;

Cc FULLER Brian <brian.fuller@state.or.us>; patricia_curtin@hotmail.com <patricia_curtin@hotmail.com>; ELWORTH Susan <susan.elworth@state.or.us>;

1 attachments (453 KB)

Sump sample results.pdf;

Mr. Pieper,

I agree with your assessment on the sumps. No further action is required for the sumps in reference to RAO LQ/HW-WR-2016-134.

Thanks,

Dan Lobato
Compliance Specialist
Western Region Hazardous Waste Program
165 East 7th Ave., Suite 100, Eugene, OR 97401
541-686-7998 (direct line)
541-686-7551 (fax)
lobato.dan@deq.state.or.us

From: Scott Pieper [mailto:rscottp@whhsmaf.com]
Sent: Thursday, October 27, 2016 7:53 AM
To: LOBATO Dan
Cc: patricia_curtin@hotmail.com
Subject: Medford Metals Sump testng

Mr. Lobato,

Analytical results for the outdoor sumps on the Medford Metals site are attached. The sumps were each tested for RCRA-8 metals, plus nickel and zinc.

The results for the samples in the outdoor collector/sumps are as follows:

Analyte	Sump 1	Sump 2	EPA Limit	DEQ RBDM Limit
Arsenic	ND	ND	5.0	0.43

Barium	0.126	ND	100.0	15,000
Cadmium	0.0069	0.0055	1.0	78
Chromium	0.291	0.227	5.0	0.30 (Cr VI)
Lead	0.083	ND	5.0	400
Nickel	4.65	2.27	n/a	1,500
Selenium	ND	MD	1.0	n/a
Silver	ND	ND	5.0	390
Zinc	0.65	0.41	n/a	n/a

Therefore, I believe the sump does not require any action during the removal process.

Do you agree with this assessment?

Regards,

R. Scott Pieper, R.G.

Environmental Services Manager

SMAF Environmental LLC

2260 NW Industrial Park Road

Prineville, OR 97754

(800) 875-7069 24-hour Spill Response Hotline

(541) 447-5643 Office

SMAF ENVIRONMENTAL

Dan Lobato
Compliance Specialist
Western Region Hazardous Waste Program
165 East 7th Ave., Suite 100, Eugene, OR 97401

RE: Disposal Plan for Medford Metals, 702 S Grape Street, Medford

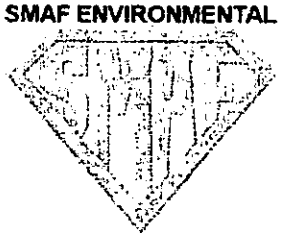
Mr. Lobato,

SMAF Environmental and NRC will perform the removal action for General Properties Group at the former Medford Metals facility.

Crews with appropriate PPE with use compatible transfer pumps to empty the dip tanks into totes, or use the liquid vac truck to combine contents for shipment as detailed below:

Source	Packaging	Destination
Tank 2	Transfer to totes	Chem Waste, Arlington OR
Tank 3	Transfer to totes	Chem Waste, Arlington OR
Tank 4	Transfer to totes	Chem Waste, Arlington OR
Tanks5, 6,7,8, 9, 11	Consolidate in Tanker	Chem Waste, Arlington OR
Tanks O-1, O-2	Transfer to Totes	Chem Waste, Arlington OR
Totes 1-5	Ship as is	Chem Waste, Arlington OR
55-gallon drums of Acid	Ship as is	Chem Waste, Arlington OR
1-gallon containers	Combine in Drums	Chem Waste, Arlington OR
5-gallon containers	Combine in Drums	Chem Waste, Arlington OR
Non-hazardous items	Combine in drums	Hillsboro Landfill

SMAF ENVIRONMENTAL



Totes will be loaded by forklift onto a placarded dry van.

Bulk liquid will be shipped in an 80-bbl liquid tanker, non-haz.

55-gallon drums will loaded onto a flatbed truck

Non-hazardous items will also be transported by the flatbed truck.

All of the hazardous materials will be transported to the Chemical Waste Facility in Arlington, OR, where they will be segregated and sent to appropriate disposal.

Non-hazardous items will be delivered to the Waste Management Hillsboro landfill.

Per our previous conversation, the liquid in the sumps will be left in place, based on the laboratory results.

Please let me know if you have any questions.

Regards,

Scott Pieper
SMAF Environmental LLC

RE: Disposal Plan re-send

Scott Pieper <rscottp@whhsmaf.com>

Thu 10/27/2016 1:21 PM

To:LOBATO Dan <dan.lobato@state.or.us>;

Cc:patricia_curtin@hotmail.com <patricia_curtin@hotmail.com>;

Thank you sir!

On October 27, 2016 at 1:18 PM LOBATO Dan <dan.lobato@state.or.us> wrote:

Thanks for the submittal. It looks good and complies with Section D.ii. of RAO LQ/HW-WR-2016-134.

Dan Lobato

Compliance Specialist

Western Region Hazardous Waste Program

165 East 7th Ave., Suite 100, Eugene, OR 97401

541-686-7998 (direct line)

541-686-7551 (fax)

lobato.dan@deq.state.or.us

From: Scott Pieper [mailto:rscottp@whhsmaf.com]
Sent: Thursday, October 27, 2016 11:16 AM
To: LOBATO Dan
Cc: patricia_curtin@hotmail.com; Benedict, Kevin
Subject: Disposal Plan re-send

My apologies. Attached is the disposal plan for Medford Metals.

R. Scott Pieper, R.G.

Environmental Services Manager

SMAF Environmental LLC

2260 NW Industrial Park Road

Prineville, OR 97754

(800) 875-7069 24-hour Spill Response Hotline

(541) 447-5643 Office

(541) 233-7830 Mobile

Re: Medford Plating cleanup

OH Co

Fri 11/4/2016 8:46 AM

To:Patricia Curtin <Patricia_Curtin@hotmail.com>;

Getting fishy?

From: Patricia Curtin <Patricia_Curtin@hotmail.com>
Sent: Thursday, November 3, 2016 6:13 PM
To: opropc@hotmail.com
Subject: Fw: Medford Plating cleanup

From: Scott Pieper <rscottp@whhsmaf.com>
Sent: Thursday, November 3, 2016 2:02 PM
To: patricia_curtin@hotmail.com
Cc: LOBATO Dan; Benedict, Kevin
Subject: Medford Plating cleanup

Hi Patricia,
DEQ has accepted the work plan for disposal of the hazardous materials at the former Medford Plating facility. I should have final numbers for disposal soon.
The removal must be completed by November 26th in order to comply with DEQ's cleanup order.
We can schedule this any time beginning next week, after you approve the budget.
Regards,

R. Scott Pieper, R.G.
Environmental Services Manager
SMAF Environmental LLC
2260 NW Industrial Park Road
Prineville, OR 97754
(800) 875-7069 24-hour Spill Response Hotline
(541) 447-5643 Office
(541) 233-7830 Mobile

Re: Disposal Quote

OH Co

Mon 11/7/2016 3:45 PM

To:Patricia Curtin <Patricia_Curtin@hotmail.com>;

Tell him the email the bid for the 43k from the subcontractor.

From: Patricia Curtin <Patricia_Curtin@hotmail.com>
Sent: Monday, November 7, 2016 2:46 PM
To: opropc@hotmail.com
Subject: Fw: Disposal Quote

From: Scott Pieper <rscottp@whhsmaf.com>
Sent: Monday, November 7, 2016 1:14 PM
To: patricia_curtin@hotmail.com
Subject: Disposal Quote

Hi Patricia,
Attached is the quote for disposal of the hazardous materials at the Medford Plating shop.
Currentlym the first availability for NRC is November 28th. I have asked DEQ for an extension.
Please let me know if you have any questions.
Regards,

R. Scott Pieper, R.G.
Environmental Services Manager
SMAF Environmental LLC
2260 NW Industrial Park Road
Prineville, OR 97754
(800) 875-7069 24-hour Spill Response Hotline
(541) 447-5643 Office
(541) 233-7830 Mobile

SMAF ENVIRONMENTAL, LLC
PO BOX 672
PRINEVILLE, OR 97754
LICENSE # 180372

OFFICE	(541) 447-5643	TAX ID #	93 - 1298744	ESTIMATE	
FAX	(541) 447-2190			DATE	11/7/2016
	CUSTOMER	General Property Group LLC		SMAF JOB#	16-0809
	ADDRESS	P.O. Box 8158			
	CITY	Medford		STATE/ZIP	OR, 97501
	PHONE	(541) 292-0433		FAX	
	EMAIL	patricia.curtin@hotmail.com			
LOCATION OF SITE :		Former Medford Plating, 702 S Grape Street, Medford			
JOB DETAIL :		Remove and dispose hazardous materials			

QUANTITY	UNIT	DESCRIPTION	$ PER UNIT	TOTAL
		PERSONNEL		
32	HR	TECHNICIAN	$43.00	$1,376.00
12	HR	TECHNICIAN - OT	$57.00	$684.00
16	HR	PROJECT MGR	$78.00	$1,248.00
6	HR	PROJECT MGR - OT	$98.00	$588.00
4	PERS/DAY	LEVEL C SURCHARGE	$75.00	$300.00
$200.00	ACTUAL	MOTEL	X 19%	$238.00
6	PERS/DAY	PER DIEM	$45.00	$270.00
		VEHICLES AND EQUIPMENT		
2	DAY	CREW VEHICLE	$150.00	$300.00
2	DAY	CREW VEHICLE & TRAILER	$200.00	$400.00
2	DAY	WATER TRAILER 500 GAL	$150.00	$300.00
		PPE		
4	EACH	SARANEX/ACID-CHEMICAL COVERALLS	$88.00	$352.00
4	PAIR	NEOPRENE GLOVES	$6.00	$24.00
1	BOX	PVC/NITRILE GLOVES	$25.00	$25.00
2	PAIR	CHEMICAL BOOTS	$22.00	$44.00
4	EA/DAY	FULL-FACE RESPIRATOR	$22.00	$88.00
2	EACH	DEFENDER CARTRIDGES	$22.00	$44.00
		MISCELLANEOUS EQUIPMENT		
2	DAY	CAMERA	$25.00	$50.00
2	SET/DAY	HAND TOOLS	$25.00	$50.00
		CONTRACTED EXPENSES		
$43,796.87	COST	PACKING, TRANSPORT, DISPOSAL - NRC	X 19%	$52,118.28
$600.00	COST	FORKLIFT	X 19%	$714.00
		SUBTOTAL		**$59,213.28**
		INSURANCE SURCHARGE	2.00%	$1,184.27
		TOTAL		**$60,397.54**

The prices listed above are an estimate based on the services that have been discussed and the actions that will be necessary to complete the services as discussed. In the event that additional services are required due to unforeseen circumstances final billing will be based on actual hours and quantities utilized.

Fw: Medford Plating removal

Patricia Curtin

Tue 11/8/2016 11:09 AM

Sent Items

To: opropc@hotmail.com <opropc@hotmail.com>;

From: Scott Pieper <rscottp@whhsmaf.com>
Sent: Tuesday, November 8, 2016 7:58 AM
To: LOBATO Dan
Cc: patricia_curtin@hotmail.com; Benedict, Kevin
Subject: RE: Medford Plating removal

Thank you for your consideration. We are working with our client to move forward on Nov. 28th.

On November 8, 2016 at 7:33 AM LOBATO Dan <dan.lobato@state.or.us> wrote:

Mr. Pieper, in consideration of your request to extend the disposal compliance date found in Remedial Action Order No. LQ/HW-WR-2016-134, the Department believes an extension to December 9, 2016 due to potential scheduling conflicts is reasonable and therefore approves your request. The new compliance date for completion of the disposal activities at 702 S. Grape Street in Medford, Oregon is December 9, 2016.

Dan Lobato
Compliance Specialist
Western Region Hazardous Waste Program
165 East 7th Ave., Suite 100, Eugene, OR 97401
541-686-7998 (direct line)
541-686-7551 (fax)
lobato.dan@deq.state.or.us

From: Scott Pieper [mailto:rscottp@whhsmaf.com]
Sent: Monday, November 07, 2016 7:01 AM
To: LOBATO Dan
Subject: Re: Medford Plating removal

Mr. Lobato,
As a follow-up, NRC is not available until Nov 28th. Therefore, an extension is necessary so our client does not suffer for our scheduling difficulties.
Thank you,

On November 4, 2016 at 1:42 PM Scott Pieper <rscottp@whhsmaf.com> wrote:

Mr. Lobato,
Our primary disposal vendor, NRC, is concerned that we have a short week before the 26th due to Thanksgiving. They are quite busy, as are we. Therefore, I would like to request a 2 week extension to December 9th to make sure we can comply with the order. We plan to have this completed this month, but the extension will allow us some room if logistics are problematic.
Regards,

R. Scott Pieper, R.G.
Environmental Services Manager
SMAF Environmental LLC
2260 NW Industrial Park Road
Prineville, OR 97754
(800) 875-7069 24-hour Spill Response Hotline
(541) 447-5643 Office
(541) 233-7830 Mobile

Fw: 702 S Grape St

Patricia Curtin

Tue 11/8/2016 2:47 PM

Sent Items

To:opropc@hotmail.com <opropc@hotmail.com>;

1 attachments (319 KB)

SMAF MM Final Proposal.pdf;

From: Scott Pieper <rscottp@whhsmaf.com>
Sent: Tuesday, November 8, 2016 2:30 PM
To: Patricia Curtin
Subject: Re: 702 S Grape St

Hi Patricia,
Actually, it should be $44,296.87. They forgot to add per diems for hotels. I though it was $500, but they corrected me, it is $1,000. (4 people, 2 nights, $125 each)
Regards,

> On November 8, 2016 at 2:25 PM Patricia Curtin <Patricia_Curtin@hotmail.com> wrote:
>
> Hi Scott,
>
> Please send me the $43,796.87 bid from the subcontractor. Thank you.
>
> Patricia
> (541) 292-0433

III

November 4, 2016

R. Scott Pieper, R.G.
SMAF Environmental LLC
2260 NW Industrial Park Rd.
Prineville, OR 97754

Re: Medford Metals Remediation and Disposal

Dear Mr. Pieper;

Scope of Work:
NRC will mobilize to Medford Metals in Medford, OR with 48' tractor/trailer and driver, 70bbl Vac Truck and operator and Gear Truck with Field Supervisor and tech. NRC will provide empty UN rated totes and all drums and materials for packing waste. NRC will provide 1 x 2" chemical pump and hose to transfer dip tanks. SMAF will provide the labor to transfer the tank liquids into totes. SMAF will also transfer any residual solids into drums provided by NRC. NRC will transport all the containerized tank liquids/solids by dry van to Chemical Waste Management of the NW for disposal. The non-regulated tank liquids will be hauled by vac truck to CWM of the NW by NRC. All the other chemical inventory will be packed by NRC and transported for disposal.

Proposal Budget:
NRC proposes to perform the above scope of work on a unit-rate basis as shown below. Note that the quantities listed below are estimates and any invoicing will use actual quantities of waste offered for disposal.

Description	Estimated Quantity	Unit of Measure	Rate	Subtotal
Tractor/Trailer with driver	3	Day	$ 1150.00	$ 3,450.00
70 bbl Vac Truck with driver	3	Day	$ 1200.00	$ 3,600.00
Supervisor and Tech	3	Day	$ 1250.00	$ 3,750.00
275gal Tote	10	Each	$ 250.00	$ 2,500.00
55gal Poly OT Drums	6	Each	$ 95.00	$ 570.00
Pump Wash Fee	1	Each	$ 250.00	$ 250.00
Cubic Yard Box	1	Each	$ 125.00	$ 125.00
55gal Steel OT Drums	2	Each	$ 55.00	$ 110.00
Estimated Labor, Transportation and Materials Budget				**$ 14,355.00**
Estimated Disposal Budget (see spreadsheet)				**$ 26,395.00**
Subtotal				**$ 40,750.00**
ESIC Fee				**$ 2,546.87**
Total Estimated Budget				**$ 43,296.87**

Proposal Assumptions:
This budget is based on the following qualifications and assumptions:

- Existing Totes and Drums are in DOT shippable condition.
- Waste must conform to an approved profile.
- SMAF to provide labor and PPE to transfer chemicals.
- SMAF to provide forklift on site.

NRC Environmental Services appreciates the opportunity to provide you with this proposal and budget. If you have any questions regarding this proposal, please contact Noi at 503-278-0597 or me via e-mail at kbenedict@nrcc.com, or by cell phone at 503-586-6403. Rates and estimates listed for this project will be considered valid for a maximum of 90 days.

Sincerely,

Kevin Benedict

Kevin Benedict
Manager
NRC Environmental Services
6211 N Ensign Street
Portland, Oregon 97217
Cell: 503-586-6403
Phone: 503-283-1150
Fax: 503-289-6568
E-mail: kbenedict@nrcc.com

Alternate Contact:
Noi Tran
Cell: 503-278-0597
Business Dev. Manager
Email: ntran@nrcc.com

This Proposal is based upon the terms and conditions included in the attached Appendix A. Changes to the terms may result in revised pricing and delay the start date. To accept this Proposal, please sign below and we will schedule the Work.

Accepted:

_____
Customer Name

_____
Signature of Authorized Representative

_____
Printed Name

_____
Title

_____
Date

Appendix "A" Terms and Conditions

Emergency Response Work Authorization
NRC Environmental Services Inc.

Customer: _____
Project # _____

1. Terms and Conditions: Customer agrees that these terms and conditions apply to all Services performed by NRC Environmental Services Inc. (NRC) for Customer. The Work Authorization, the Price List and this Appendix "A" (collectively "the Agreement") constitute the entire agreement between the parties. Provisions contained in any purchase order or other document provided by Customer that vary or conflict with the terms contained herein are hereby rejected unless expressly agreed to by NRC. Modification to this Agreement may be made only in writing, signed by both parties. The parties agree that any facsimile copy or scanned copy of this Agreement, attachments and signatures and initials are valid and binding on the parties. This Agreement may be signed in multiple counterparts. No failure of NRC to take any action or assert any right shall be deemed a waiver of that right.

2. Payment: **This Agreement is subject to accelerated payments. Unless otherwise agreed by NRC in writing, 100% of invoiced amounts shall be paid within 10 days of Customer's or its agent's receipt of each invoice submitted by NRC.** Late payments shall earn interest at the rate of 1.5 % per month, or the maximum rate permitted by law, whichever is less, from the due date until paid. In addition to interest, Customer shall pay all costs incurred by NRC to collect overdue amounts, including collection fees, filing fees, court costs and attorney's fees. NRC reserves all legal rights and recourses against the Customer and its property for failure of Customer to pay invoices when due.

3. Schedule: NRC shall use reasonable effort to complete the Services in accordance to the agreed schedule. However, no warranties or representations are made as to the completion date of any Services undertaken, nor will Customer have any right to damages arising from delays of NRC in the completion of the Services.

4. Changes, Suspension: Any changes requested by Customer in the Services at any time shall be compensated by Customer in accordance with NRC's Price List then in effect. Unknown or unanticipated conditions (conditions differing from information provided by Customer or differing from those revealed by a visual site inspection), changes in laws or required standards or directions by federal or state agencies shall be considered a change requested by Customer. In the event NRC's performance is suspended or delayed by Customer, government personnel, weather or other reason beyond NRC's control, NRC shall be paid at the rates contained in the Price List for personnel and equipment that is required to standby, for demobilization and mobilization costs, and other costs incurred as a result of such suspension or delay.

5. Warranty: NRC shall perform the Services in accordance with all applicable federal, state and local regulations. NRC will reperform deficient Services if written notice of the defect is received by NRC prior to acceptance and demobilization of emergency response Services. **NRC makes no warranty that NRC will recover any specific quantity of hazardous or other substance or that any specific level of cleanliness will be achieved or human activity can be resumed.** NRC's reperformance of deficient Services shall constitute NRC's sole liability under this Section. This warranty is in lieu of all warranties, expressed, implied or statutory, including the warranties of workmanship, merchantability, fitness for a particular purpose, custom and usage or otherwise, which are hereby disclaimed by NRC and waived by Customer. NRC's liability to Customer for any reason in connection with the performance of the Services shall terminate upon acceptance of the Services by Customer.

6. Handling of Waste: By virtue of performing the Services, NRC will not accept or acquire (i) title to any waste handled by NRC; or (ii) the status of the generator, owner, operator or arranger of transportation, treatment, storage or disposal, as defined by federal and state laws governing the handling, treatment, storage or disposal of solid or hazardous waste. Customer warrants that it has title to and is generator of any hazardous or regulated waste or substance handled by NRC in the performance of the Services. If Customer requests assistance with the treatment, storage or disposal of any waste or substance regulated by law, NRC will transport such waste or cause it to be transported under a waste manifest executed by Customer or its agent to a disposal or treatment facility selected by Customer. NRC shall not select the disposal or treatment facility. Customer shall pay all fees and taxes arising from or related to handling, transportation and disposal of Customer's waste. Any transportation undertaken or arranged by NRC to any disposal facility, and any execution of contracts, waste profiles, or payment by NRC for any transportation or disposal services, shall be performed solely as Customer's agent. Customer shall remain responsible for any claims by the disposal facility with respect to the waste and shall look solely to the disposal facility in the event of a release or other liability arising from the disposal service. Prices quoted by NRC for transportation and disposal of waste do not constitute a selection of the disposal facility and shall be subject to adjustment in the event the disposal facility increases its price to NRC or Customer designates another facility.

7. Insurance: During the performance of the Services, NRC shall maintain worker's compensation and employer's liability insurance, commercial general liability insurance in the amount of $1,000,000 per occurrence; automobile liability insurance in the amount of $1,000,000 combined single limit and Contractor's Pollution Liability insurance in the amount of $1,000,000 per occurrence. Customer shall be an additional insured on the general and auto liability policies per blanket endorsements to the extent of NRC's liability under this Agreement.

8. Indemnification by Customer: Customer shall indemnify, defend and hold NRC harmless from and against any and all loss, liability, claims, damages, fines, penalties costs or expenses (including defense costs and attorney's fees) incurred by Customer, NRC or third parties arising from or in connection with any bodily injury or death, property damage, environmental release, impairment, pollution or condition or any other cause occurring prior to NRC's commencement of the Services, and during or after the performance of the Services except to the limited extent directly attributable to NRC's gross negligence in the performance of the Services.

9. Limit of Liability: Notwithstanding any other provision of this Agreement, NRC shall be entitled to the benefit of all exemptions from and limitations of liability to which NRC is entitled under applicable law, including responder immunity provisions under federal and state law. In no event shall NRC be liable for damages suffered by the Customer arising from the Services whether damages to third parties or the Customer directly, unless the damages were directly caused by the gross negligence or willful misconduct of NRC. Notwithstanding any other provision contained in this Agreement, neither party shall be liable to the other party for any punitive, indirect, special or consequential damages of any kind, including without limitation, lost profits or loss of use, regardless of the cause, including negligence, even if such damages were within the contemplation of, foreseen by or reasonably foreseeable by the parties. NRC'S AGGREGATE LIABILITY UNDER THIS AGREEMENT OR ARISING FROM THE PERFORMANCE OF THE SERVICES SHALL NOT EXCEED 200% OF THE COMPENSATION RECEIVED BY NRC, HOWEVER CAUSED, INCLUDING NEGLIGENCE, AND CUSTOMER SHALL RELEASE AND INDEMNIFY NRC AGAINST LIABILITY IN EXCESS OF THIS AMOUNT TO THE FULLEST EXTENT ALLOWABLE BY LAW.

10. Suspension or Termination by NRC: NRC may suspend or terminate this Agreement at any time in the event of 1) failure of Customer to timely pay amounts due, or 2) breach by Customer of any provision of this Agreement. Customer shall be responsible for all charges incurred as a result of such termination or suspension, in addition to charges for Services performed hereunder.

11. Law and Jurisdiction: This Agreement and the rights and obligations of the parties shall be governed by the law of the State of Washington. Any suit, action or proceeding brought by any party shall be commenced exclusively in the appropriate state or federal court situated in the county or district nearest to NRC's office that contracted for the services hereunder, and each party hereby submits to the exclusive jurisdiction of such court.

Customer Initials: _____
NRC's Initials: KB

Tank/Tote #	Waste Volume	Pricing	Total
Tank 2, 4 and Tote 3	6 x tote	1150.00 each	6,900.00
	1 x 55gal	340.00 each	340.00
Tank 3	2 x tote	1880.00 each	3,760.00
Tanks 5,6,7,8,9,11	1500.00 (est.)	1.75 per gal	2,625.00 (est.)
Tank O-1	1 x tote	1880.00 each	1,880.00
	2 x 55gal	555.00 each	1,100.00
Tank O-2	1 x tote	1880.00 each	1,880.00
Tote 1 and 2	2 x tote	1150.00 each	2,300.00
Tote 4 and 5	2 x tote	1880.00 each	3,760.00
Chemical Inventory List			
HCl / Muriatic Acid	3 x 55gal	235.00 each	705.00
Nickel Sulfate	1 x 55gal	200.00 each	200.00
NaOH powder	1 x 55gal	120.00 each	120.00
Acid Labpack	1 x 30gal	375.00 each	375.00
Toxic Loosepack	1 x CuYd box	450.00 each	450.00
Total Estimate			26,395.00

November 4, 2016

R. Scott Pieper, R.G.
SMAF Environmental LLC
2260 NW Industrial Park Rd.
Prineville, OR 97754

Re: Medford Metals Remediation and Disposal

Dear Mr. Pieper;

Scope of Work:
NRC will mobilize to Medford Metals in Medford, OR with 48' tractor/trailer and driver, 70bbl Vac Truck and operator and Gear Truck with Field Supervisor and tech. NRC will provide empty UN rated totes and all drums and materials for packing waste. NRC will provide 1 x 2" chemical pump and hose to transfer dip tanks. SMAF will provide the labor to transfer the tank liquids into totes. SMAF will also transfer any residual solids into drums provided by NRC. NRC will transport all the containerized tank liquids/solids by dry van to Chemical Waste Management of the NW for disposal. The non-regulated tank liquids will be hauled by vac truck to CWM of the NW by NRC. All the other chemical inventory will be packed by NRC and transported for disposal.

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Subtotal				**$ 40,750.00**
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Total Estimated Budget				**$ 43,296.87**

Proposal Assumptions:
This budget is based on the following qualifications and assumptions:

- Existing Totes and Drums are in DOT shippable condition.
- Waste must conform to an approved profile.
- SMAF to provide labor and PPE to transfer chemicals.
- SMAF to provide forklift on site.

NRC Environmental Services appreciates the opportunity to provide you with this proposal and budget. If you have any questions regarding this proposal, please contact Noi at 503-278-0597 or me via e-mail at kbenedict@nrcc.com, or by cell phone at 503-586-6403. Rates and estimates listed for this project will be considered valid for a maximum of 90 days.

Sincerely,

Kevin Benedict

Kevin Benedict
Manager
NRC Environmental Services
6211 N Ensign Street
Portland, Oregon 97217
Cell: 503-586-6403
Phone: 503-283-1150
Fax: 503-289-6568
E-mail: kbenedict@nrcc.com

Alternate Contact:
Noi Tran
Cell: 503-278-0597
Business Dev. Manager
Email: ntran@nrcc.com

This Proposal is based upon the terms and conditions included in the attached Appendix A. Changes to the terms may result in revised pricing and delay the start date. To accept this Proposal, please sign below and we will schedule the Work.

Accepted:

_____
Customer Name

_____
Signature of Authorized Representative

_____
Printed Name

_____
Title

_____
Date

Appendix "A" Terms and Conditions

Emergency Response Work Authorization
NRC Environmental Services Inc.

Customer: _____
Project # _____

1. Terms and Conditions: Customer agrees that these terms and conditions apply to all Services performed by NRC Environmental Services Inc. (NRC) for Customer. The Work Authorization, the Price List and this Appendix "A" (collectively "the Agreement") constitute the entire agreement between the parties. Provisions contained in any purchase order or other document provided by Customer that vary or conflict with the terms contained herein are hereby rejected unless expressly agreed to by NRC. Modification to this Agreement may be made only in writing, signed by both parties. The parties agree that any facsimile copy or scanned copy of this Agreement, attachments and signatures and initials are valid and binding on the parties. This Agreement may be signed in multiple counterparts. No failure of NRC to take any action or assert any right shall be deemed a waiver of that right.

2. Payment: **This Agreement is subject to accelerated payments. Unless otherwise agreed by NRC in writing, 100% of invoiced amounts shall be paid within 10 days of Customer's or its agent's receipt of each invoice submitted by NRC.** Late payments shall earn interest at the rate of 1.5 % per month, or the maximum rate permitted by law, whichever is less, from the due date until paid. In addition to interest, Customer shall pay all costs incurred by NRC to collect overdue amounts, including collection fees, filing fees, court costs and attorney's fees. NRC reserves all legal rights and recourses against the Customer and its property for failure of Customer to pay invoices when due.

3. Schedule: NRC shall use reasonable effort to complete the Services in accordance to the agreed schedule. However, no warranties or representations are made as to the completion date of any Services undertaken, nor will Customer have any right to damages arising from delays of NRC in the completion of the Services.

4. Changes, Suspension: Any changes requested by Customer in the Services at any time shall be compensated by Customer in accordance with NRC's Price List then in effect. Unknown or unanticipated conditions (conditions differing from information provided by Customer or differing from those revealed by a visual site inspection), changes in laws or required standards or directions by federal or state agencies shall be considered a change requested by Customer. In the event NRC's performance is suspended or delayed by Customer, government personnel, weather or other reason beyond NRC's control, NRC shall be paid at the rates contained in the Price List for personnel and equipment that is required to standby, for demobilization and mobilization costs, and other costs incurred as a result of such suspension or delay.

5. Warranty: NRC shall perform the Services in accordance with all applicable federal, state and local regulations. NRC will reperform deficient Services if written notice of the defect is received by NRC prior to acceptance and demobilization of emergency response Services. **NRC makes no warranty that NRC will recover any specific quantity of hazardous or other substance or that any specific level of cleanliness will be achieved or human activity can be resumed.** NRC's reperformance of deficient Services shall constitute NRC's sole liability under this Section. This warranty is in lieu of all warranties, expressed, implied or statutory, including the warranties of workmanship, merchantability, fitness for a particular purpose, custom and usage or otherwise, which are hereby disclaimed by NRC and waived by Customer. NRC's liability to Customer for any reason in connection with the performance of the Services shall terminate upon acceptance of the Services by Customer.

6. Handling of Waste: By virtue of performing the Services, NRC will not accept or acquire (i) title to any waste handled by NRC; or (ii) the status of the generator, owner, operator or arranger of transportation, treatment, storage or disposal, as defined by federal and state laws governing the handling, treatment, storage or disposal of solid or hazardous waste. Customer warrants that it has title to and is generator of any hazardous or regulated waste or substance handled by NRC in the performance of the Services. If Customer requests assistance with the treatment, storage or disposal of any waste or substance regulated by law, NRC will transport such waste or cause it to be transported under a waste manifest executed by Customer or its agent to a disposal or treatment facility selected by Customer. NRC shall not select the disposal or treatment facility. Customer shall pay all fees and taxes arising from or related to handling, transportation and disposal of Customer's waste. Any transportation undertaken or arranged by NRC to any disposal facility, and any execution of contracts, waste profiles, or payment by NRC for any transportation or disposal services, shall be performed solely as Customer's agent. Customer shall remain responsible for any claims by the disposal facility with respect to the waste and shall look solely to the disposal facility in the event of a release or other liability arising from the disposal service. Prices quoted by NRC for transportation and disposal of waste do not constitute a selection of the disposal facility and shall be subject to adjustment in the event the disposal facility increases its price to NRC or Customer designates another facility.

7. Insurance: During the performance of the Services, NRC shall maintain worker's compensation and employer's liability insurance, commercial general liability insurance in the amount of $1,000,000 per occurrence; automobile liability insurance in the amount of $1,000,000 combined single limit and Contractor's Pollution Liability insurance in the amount of $1,000,000 per occurrence. Customer shall be an additional insured on the general and auto liability policies per blanket endorsements to the extent of NRC's liability under this Agreement.

8. Indemnification by Customer: Customer shall indemnify, defend and hold NRC harmless from and against any and all loss, liability, claims, damages, fines, penalties costs or expenses (including defense costs and attorney's fees) incurred by Customer, NRC or third parties arising from or in connection with any bodily injury or death, property damage, environmental release, impairment, pollution or condition or any other cause occurring prior to NRC's commencement of the Services, and during or after the performance of the Services except to the limited extent directly attributable to NRC's gross negligence in the performance of the Services.

9. Limit of Liability: Notwithstanding any other provision of this Agreement, NRC shall be entitled to the benefit of all exemptions from and limitations of liability to which NRC is entitled under applicable law, including responder immunity provisions under federal and state law. In no event shall NRC be liable for damages suffered by the Customer arising from the Services whether damages to third parties or the Customer directly, unless the damages were directly caused by the gross negligence or willful misconduct of NRC. Notwithstanding any other provision contained in this Agreement, neither party shall be liable to the other party for any punitive, indirect, special or consequential damages of any kind, including without limitation, lost profits or loss of use, regardless of the cause, including negligence, even if such damages were within the contemplation of, foreseen by or reasonably foreseeable by the parties. NRC'S AGGREGATE LIABILITY UNDER THIS AGREEMENT OR ARISING FROM THE PERFORMANCE OF THE SERVICES SHALL NOT EXCEED 200% OF THE COMPENSATION RECEIVED BY NRC, HOWEVER CAUSED, INCLUDING NEGLIGENCE, AND CUSTOMER SHALL RELEASE AND INDEMNIFY NRC AGAINST LIABILITY IN EXCESS OF THIS AMOUNT TO THE FULLEST EXTENT ALLOWABLE BY LAW.

10. Suspension or Termination by NRC: NRC may suspend or terminate this Agreement at any time in the event of 1) failure of Customer to timely pay amounts due, or 2) breach by Customer of any provision of this Agreement. Customer shall be responsible for all charges incurred as a result of such termination or suspension, in addition to charges for Services performed hereunder.

11. Law and Jurisdiction: This Agreement and the rights and obligations of the parties shall be governed by the law of the State of Washington. Any suit, action or proceeding brought by any party shall be commenced exclusively in the appropriate state or federal court situated in the county or district nearest to NRC's office that contracted for the services hereunder, and each party hereby submits to the exclusive jurisdiction of such court.

Customer Initials: _____
NRC's Initials: KS

Tank/Tote #	Waste Volume	Pricing	Total
Tank 2, 4 and Tote 3	6 x tote	1150.00 each	6,900.00
	1 x 55gal	340.00 each	340.00
Tank 3	2 x tote	1880.00 each	3,760.00
Tanks 5,6,7,8,9,11	1500.00 (est.)	1.75 per gal	2,625.00 (est.)
Tank O-1	1 x tote	1880.00 each	1,880.00
	2 x 55gal	555.00 each	1,100.00
Tank O-2	1 x tote	1880.00 each	1,880.00
Tote 1 and 2	2 x tote	1150.00 each	2,300.00
Tote 4 and 5	2 x tote	1880.00 each	3,760.00
Chemical Inventory List			
HCl / Muriatic Acid	3 x 55gal	235.00 each	705.00
Nickel Sulfate	1 x 55gal	200.00 each	200.00
NaOH powder	1 x 55gal	120.00 each	120.00
Acid Labpack	1 x 30gal	375.00 each	375.00
Toxic Loosepack	1 x CuYd box	450.00 each	450.00
Total Estimate			26,395.00

Fw: Proposal

Patricia Curtin

Fri 11/11/2016 11:18 AM

Sent Items

To:opropc@hotmail.com <opropc@hotmail.com>;

2 attachments (882 KB)

1608511 SMAF 6-0809 Medford Metals AMENDED.pdf; SMAF MM Final Proposal.pdf;

From: Scott Pieper <rscottp@whhsmaf.com>
Sent: Friday, November 11, 2016 7:33 AM
To: Patricia Curtin
Subject: Re: Proposal

Hi Patricia,
The tank contents were not completely identified, but were group into classes for disposal. Part of our service is applying our knowledge and experience to reduce the number of analyses needed on unknowns. This is why we ran pH, fluoride, cyanide, and metals only, instead of the full RCRA screen which would have run $1,300 per tank and tote. This is enough analyses to classify the liquids for disposal, but does not completely identify each compound.
Thus, we were able to determine that the contents of several tanks could be combined.
I have attached the lab results.
NRC is wiling to bill you directly, which would save you our 19% administration markup. This would save you about $8,000. Let me know if you would like to do this. Their proposal is attached.
Also, I have spent quite a bit of time looking for folks who might be able to use the drums of acid and the totes full of plating solution. So far, nobody want to take this material. NRC also has had no success. If you know of another plating shop that could use this material, it would save the disposal costs for those materials.
It is important to get the removal complete before Dec 9th. This is the extension date granted by Mr. Lobato of the DEQ.
Please let me know if you have any questions.

> On November 10, 2016 at 7:15 PM Patricia Curtin <Patricia_Curtin@hotmail.com> wrote:
>
> Hi Scott,
>
> I hope you are doing well. I was just reviewing the proposal for 702 S Grape St. On NRC's breakdown, they list the waste volume for each group of tanks/totes, but they do not list the chemical. I assume that the grouped tanks/totes contain the same chemicals or chemicals that can be mixed (based on your compatibility study). The chart I am referring to is attached. Please tell me

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what chemicals are in each group. Essentially, what I am asking is for another column that says what each tank/tote groups contains. Thank you so much!

Sincerely,
Patricia

November 4, 2016

R. Scott Pieper, R.G.
SMAF Environmental LLC
2260 NW Industrial Park Rd.
Prineville, OR 97754

Re: Medford Metals Remediation and Disposal

Dear Mr. Pieper;

Scope of Work:
NRC will mobilize to Medford Metals in Medford, OR with 48' tractor/trailer and driver, 70bbl Vac Truck and operator and Gear Truck with Field Supervisor and tech. NRC will provide empty UN rated totes and all drums and materials for packing waste. NRC will provide 1 x 2" chemical pump and hose to transfer dip tanks. SMAF will provide the labor to transfer the tank liquids into totes. SMAF will also transfer any residual solids into drums provided by NRC. NRC will transport all the containerized tank liquids/solids by dry van to Chemical Waste Management of the NW for disposal. The non-regulated tank liquids will be hauled by vac truck to CWM of the NW by NRC. All the other chemical inventory will be packed by NRC and transported for disposal.

Proposal Budget:
NRC proposes to perform the above scope of work on a unit-rate basis as shown below. Note that the quantities listed below are estimates and any invoicing will use actual quantities of waste offered for disposal.

Description	Estimated Quantity	Unit of Measure	Rate	Subtotal
Tractor/Trailer with driver	3	Day	$ 1150.00	$ 3,450.00
70 bbl Vac Truck with driver	3	Day	$ 1200.00	$ 3,600.00
Supervisor and Tech	3	Day	$ 1250.00	$ 3,750.00
275gal Tote	10	Each	$ 250.00	$ 2,500.00
55gal Poly OT Drums	6	Each	$ 95.00	$ 570.00
Pump Wash Fee	1	Each	$ 250.00	$ 250.00
Cubic Yard Box	1	Each	$ 125.00	$ 125.00
55gal Steel OT Drums	2	Each	$ 55.00	$ 110.00
Estimated Labor, Transportation and Materials Budget				**$ 14,355.00**
Estimated Disposal Budget (see spreadsheet)				**$ 26,395.00**
Subtotal				**$ 40,750.00**
ESIC Fee				**$ 2,546.87**
Total Estimated Budget				**$ 43,296.87**

Proposal Assumptions:
This budget is based on the following qualifications and assumptions:

- Existing Totes and Drums are in DOT shippable condition.
- Waste must conform to an approved profile.
- SMAF to provide labor and PPE to transfer chemicals.
- SMAF to provide forklift on site.

NRC Environmental Services appreciates the opportunity to provide you with this proposal and budget. If you have any questions regarding this proposal, please contact Noi at 503-278-0597 or me via e-mail at kbenedict@nrcc.com, or by cell phone at 503-586-6403. Rates and estimates listed for this project will be considered valid for a maximum of 90 days.

Sincerely,

Kevin Benedict

Kevin Benedict
Manager
NRC Environmental Services
6211 N Ensign Street
Portland, Oregon 97217
Cell: 503-586-6403
Phone: 503-283-1150
Fax: 503-289-6568
E-mail: kbenedict@nrcc.com

Alternate Contact:
Noi Tran
Cell: 503-278-0597
Business Dev. Manager
Email: ntran@nrcc.com

This Proposal is based upon the terms and conditions included in the attached Appendix A. Changes to the terms may result in revised pricing and delay the start date. To accept this Proposal, please sign below and we will schedule the Work.

Accepted:

_____
Customer Name

_____
Signature of Authorized Representative

_____
Printed Name

_____
Title

_____
Date

Re: Medford Plating

Scott Pieper <rscottp@whhsmaf.com>

Fri 11/18/2016 10:00 AM

To:Patricia Curtin <patricia_curtin@hotmail.com>;

Hi Patricia,

What are your questions?

Sorry to keep nagging, but we need to get this finalized if we are to do the removal on the 28th as planned.

If you are making other arrangements, or if this date does not work for you, please let me know.

If the estimate total is daunting, please call Kevin Benedict at NRC in Portland. You can contract directly with them to save our markup. Then our input is minimal. I would still act as project manager, and bring one technician to assist NRC with product transfer and loading.

Regards,

On November 16, 2016 at 7:57 AM Patricia Curtin <patricia_curtin@hotmail.com> wrote:

Hi Scott,

I hope you are doing well. I have a few more questions. I will email them to you shortly. Thank you.

Get Outlook for Android

On Wed, Nov 16, 2016 at 7:32 AM -0800, "Scott Pieper" <rscottp@whhsmaf.com> wrote:

Hi Patricia,

It is getting close to the deadline for the cleanup activities at the Medford Plating shop. Please contact me so we can finalize arrangements. If you are not ready to move forward with us, please let me know.

R. Scott Pieper, R.G.

Environmental Services Manager

SMAF Environmental LLC

2260 NW Industrial Park Road

Prineville, OR 97754

Medford Plating

Scott Pieper <rscottp@whhsmaf.com>

Mon 11/21/2016 7:50 AM

To:patricia_curtin@hotmail.com <patricia_curtin@hotmail.com>;

Cc:Benedict, Kevin <KBenedict@nrcc.com>;

Hi Patricia,

I need an answer or we will need to reschedule. NRC has limited availability. Please contact me today.

Regards,

R. Scott Pieper, R.G.

Environmental Services Manager

SMAF Environmental LLC

2260 NW Industrial Park Road

Prineville, OR 97754

(800) 875-7069 24-hour Spill Response Hotline

(541) 447-5643 Office

(541) 233-7830 Mobile

Re: Schedule change

Patricia Curtin

Wed 11/23/2016 4:51 PM

Sent Items

To: Scott Pieper <rscottp@whhsmaf.com>;

Hi Scott,

Thank you. I am away for the holiday. I will contact you on Monday. Thank you again.

Sincerely,

Patricia
(541) 292-0433

From: Scott Pieper <rscottp@whhsmaf.com>
Sent: Tuesday, November 22, 2016 10:47:04 AM
To: patricia_curtin@hotmail.com; opropc@hotmail.com
Cc: Benedict, Kevin
Subject: Schedule change

Hi Patricia,
Since I have not heard from you, and we do not have a work order in place, we will cancel the planned cleanup/disposal currently scheduled for next Monday.
Please let me know your plans so I can adjust accordingly.
Regards,

R. Scott Pieper, R.G.
Environmental Services Manager
SMAF Environmental LLC
2260 NW Industrial Park Road
Prineville, OR 97754
(800) 875-7069 24-hour Spill Response Hotline
(541) 447-5643 Office
(541) 233-7830 Mobile

Re: Medford Plating

Scott Pieper <rscottp@whhsmaf.com>

Thu 12/1/2016 5:08 PM

To: Patricia Curtin <Patricia_Curtin@hotmail.com>; opropc@hotmail.com <opropc@hotmail.com>;

Cc: Benedict, Kevin <KBenedict@nrcc.com>; Scott Porfily <scottp@whhsmaf.com>;

Patricia,

SMAF will assist NRC with the lab packs. NRC has the lead for packing, transferring, and shipping these materials. They all go to a facility in Arlington, Oregon.

Both NRC and I have tried to find alternatives, but there are just not any plating shops around that would be willing to re-use these materials, so they must go for disposal.

The estimate I previously sent is our best effort.

If you are trying to reduce costs, please contact NRC and they can bill you directly, which cuts out our markup. I would still provide supervision and labor for packing and transferring products.

The DEQ deadline of December 9th is fast approaching. Unfortunately, I am booked this week and next. You will need to tell DEQ (Dan Lobato) your plans and ask for another extension.

Patricia, it is important to communicate your intentions. We were ready to go on Monday, but had not heard from you. Now we are unable to meet your deadline for satisfying the DEQ requirement to remove the materials from the property.

Please let me, NRC, and DEQ know your plans.

Regards,

> On December 1, 2016 at 4:56 PM Patricia Curtin <Patricia_Curtin@hotmail.com> wrote:
>
> **Hi Scott,**
>
> **I hope you are doing well. Do you do the labpacks, yourself? Would you be able to give me an estimate for your time to do the lab packs and consult on the disposal of the other waste? Please let me know. Thank you so much.**
>
> **Patricia**
>
> **(541) 292-0433**
>
> ---
>
> **From:** Scott Pieper <rscottp@whhsmaf.com>
> **Sent:** Tuesday, November 29, 2016 7:26:10 AM
> **To:** patricia_curtin@hotmail.com

Cc: opropc@hotmail.com
Subject: Medford Plating

Hi Patricia,

I need to know if you wish me to continue with this project. If you have made other arrangements, please let me know.

Regards,

R. Scott Pieper, R.G.

Environmental Services Manager

SMAF Environmental LLC

2260 NW Industrial Park Road

Prineville, OR 97754

(800) 875-7069 24-hour Spill Response Hotline

(541) 447-5643 Office

(541) 233-7830 Mobile

Fw: Labpacks

Patricia Curtin

Fri 12/2/2016 11:34 AM

Sent Items

To: opropc@hotmail.com <opropc@hotmail.com>;

He will not answer my question.

From: Scott Pieper <rscottp@whhsmaf.com>
Sent: Friday, December 2, 2016 7:32 AM
To: Patricia Curtin
Subject: Re: Labpacks

What are you proposing?

> On December 1, 2016 at 6:13 PM Patricia Curtin <Patricia_Curtin@hotmail.com> wrote:
>
> Hi Scott,
>
> Please do not forward this email. Can you do the lab packing alone without NRC? Are you able do that phase of it? Please let me know. Thank you.

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Re: 702 S Grape St

Patricia Curtin

Thu 12/8/2016 3:07 PM

Sent Items

To Scott Pieper <rscottp@whhsmaf.com>;

Hello Scott,

Please email me your entire file on this property including a site map showing which tanks are which. We paid you a great deal of money to inventory the chemicals. We need to know how the tanks are numbered. Thank you.

Sincerely,

Patricia

From: Scott Pieper <rscottp@whhsmaf.com>
Sent: Friday, December 2, 2016 2:25:03 PM
To: Patricia Curtin
Subject: Re: 702 S Grape St

Since you are soliciting other bids, you are now acting as project manager. Please inform DEQ that I am no longer your project manager. I can not act as a sub to unknown disposal and transportation companies, so, no, I can not do lab packs for you.

On December 2, 2016 at 2:18 PM Patricia Curtin <Patricia_Curtin@hotmail.com> wrote:

Hi Scott,

I am not proposing anything yet. We are considering all options and bids. I would like to know if you are able to do the labpacks so they are ready for someone else to transport and dispose of. If you are able to do the labpacks, please give me a separate bid for that phase of the cleanup. Also, please send me a site map showing which tanks are which. Thank you so much.

Sincerely,

Patricia

Fw: 702 S Grape St

Patricia Curtin

Thu 12/8/2016 3:46 PM

Sent Items

To opropc@hotmail.com <opropc@hotmail.com>,

From: Scott Pieper <rscottp@whhsmaf.com>
Sent: Thursday, December 8, 2016 3:45 PM
To: Patricia Curtin
Cc: Scott Porfily
Subject: Re: 702 S Grape St

Hi Patricia,
Actually you paid me a reasonable amount to:

- Perform a chemical inventory
- Prepare a disposal plan
- Fill out paperwork for DEQ and EPA
- Coordinate with DEQ to avoid penalties
- Perform analyses on tanks and chemicals to determine disposal procedures and incompatibilities
- Test the outdoor sumps to determine if chemicals there needed to be addressed
- Research disposal options and recycling options

I have put in many hours for which you have not been billed, researching options, to try to find the best solutions for you.
We had a plan approved by DEQ and ready to be executed last week. Now, without consulting or informing me, you appear to be going down a different path. This is your decision.
However, you have not paid our last invoice.
I will be happy to send you the project information compiled to date when you have paid.
Regards,

> On December 8, 2016 at 3:09 PM Patricia Curtin <Patricia_Curtin@hotmail.com> wrote:
>
> Hello Scott,
>
> Please email me your entire file on this property including a site map showing which tanks are which. We paid you a great deal of money to inventory the chemicals. We need to know how the tanks are numbered. Thank you.

Sincerely,

Patricia

Fw: Medford Plating info

Patricia Curtin

Mon 12/12/2016 2:11 PM

Sent Items

To: opropc@hotmail.com <opropc@hotmail.com>;

13 attachments (4 MB)

Sump sample results.pdf; Sump results letter.pdf; Sumps.jpg; Disposal Plan.pdf; Disposal plan approval.pdf; Site Map.pdf; Plating Room.pdf; Tank Volumes.pdf; Chemical inventory.pdf; DEQ Extension.pdf; DEQ Form (SP) R 102616 (1).pdf; Tank descriptions.pdf; Tank Sampling Results.pdf;

From: Scott Pieper <rscottp@whhsmaf.com>
Sent: Monday, December 12, 2016 2:06 PM
To: patricia_curtin@hotmail.com
Subject: Medford Plating info

Hi Patricia,
We received your final payment today. Thank you.
Attached find pertinent information that will help your new contractor.
Regards,

R. Scott Pieper, R.G.
Environmental Services Manager
SMAF Environmental LLC
2260 NW Industrial Park Road
Prineville, OR 97754
(800) 875-7069 24-hour Spill Response Hotline
(541) 447-5643 Office
(541) 233-7830 Mobile

Re: New Hazardous Waste RCRA SI Number ORD987201480

Patricia Curtin

Wed 2/8/2017 11:50 AM

Sent Items

To:Scott Pieper <rscottp@whhsmaf.com>;

Thank you.

From: Scott Pieper <rscottp@whhsmaf.com>
Sent: Wednesday, February 8, 2017 6:37:15 AM
To: patricia_curtin@hotmail.com
Subject: Fwd: New Hazardous Waste RCRA SI Number ORD987201480

Patricia,
You will need to use the attached to register and file an annual report if you have not already done so.
The report is due by March 1. Call DEQ if you have any questions.

---------- Original Message ----------
From: MAYES Edna D <edna.d.mayes@state.or.us>
To: "rscottp@whhsmaf.com" <rscottp@whhsmaf.com>
Date: November 22, 2016 at 12:36 PM
Subject: New Hazardous Waste RCRA SI Number ORD987201480

Hi Scott,

Per your request please find attached your new RCRA Waste Site ID Number ORD987201480 for Former Medford Plating Inc hazardous waste activities. Pin letter and Notifying DEQ HW Activities factsheet are also attached. Please don't hesitate to call DEQ Hot-line at 503 229-6938 if you have additional questions. Thanks.

Sincerely,

Edna D. Mayes

Edna D. Mayes
Hazardous Waste Data/Invoicing Specialist
ODEQ Operations
503 229-6938

This November, DEQ's Headquarters Office will be moving to a new location - the 700 Lloyd Building at 700 NE Multnomah St., Suite #600, Portland, OR 97232. The target date for operating at the new location is November 7th, 2016.

Oregon
Kate Brown, Governor

Department of Environmental Quality
Land Quality Division
811 SW Sixth Avenue
Portland, OR 97204-1390
(503) 229-5696
FAX (503) 229-6977
TTY 711

11/21/2016

Scott Pieper
Former Medford Plating Inc
PO Box 672
Prineville, OR 97754

Dear Scott Pieper:

This letter confirms that you have filed a Site Identification Form notifying the Oregon Department of Environmental Quality (DEQ) of your RCRA hazardous waste activity or change in business ownership. Your newly assigned RCRA Site Identification Number is permanently assigned to your facility's physical location. The ID number is a tracking device that must be used on all shipping manifests, annual hazardous waste reports, and all correspondence with DEQ's Hazardous Waste Section.

This number cannot be transferred to a second location; you must apply for a new ID number by submitting a new Site Identification Form. You may withdraw the ID number using the Site Identification Form if your business: 1) changes ownership, 2) closes, 3) moves, or 4) RCRA activities are no longer taking place. An annual report may be required for the part of the year the ID number was active. A fact sheet titled "Hazardous Waste Notification Requirements" has been included to provide additional information.

You may submit a revised Site Identification (SI) Form at any time during the year. The SI form can be found on DEQ's website at www.deqhazwaste.net. Additional hazardous waste information can be found at www.deq.state.or.us/lq/hw/index.htm. If you have questions concerning your RCRA Site ID Number, please call DEQ in Portland (503) 229-6938 or toll-free within Oregon at 1-800-452-4011, extension 6938.

If you have registered as a hazardous waste generator, you will find enclosed a letter identifying your **Personal Identification Number (PIN)**. Your PIN enables you to set up an account to file your annual hazardous waste report electronically. To set up your account, or for more information on the annual hazardous waste report, go to www.deqhazwaste.net

Save both this acknowledgment letter and your PIN letter for future reference.

ACKNOWLEDGMENT OF NOTIFICATION OF HAZARDOUS WASTE ACTIVITY

RCRA SITE ID NUMBER:	**ORD987201480**
Facility Name:	Former Medford Plating Inc
Site Location:	702 S GRAPE ST MEDFORD, OR 97501
Reason for Submittal:	New Ownership

Sincerely,
Edna Mayes
Edna Mayes, Hazardous Waste Data Specialist
Land Quality Division, Hazardous Waste Section

11/21/2016

Scott Pieper
Former Medford Plating Inc
PO Box 672
Prineville, OR 97754

HazWaste Personal Identification Number (PIN)

All hazardous waste generators that have an active RCRA Site Identification Number are required to file an annual report. A reminder and instructions will be sent to the forms contact each December indicating a March 1 due date. The PIN number below provides you access to HazWaste.net, the State of Oregon's Hazardous Waste Electronic Reporting application. The Web address for the HazWaste.net application is **www.DeqHazWaste.net**. Please go to this Web address and select the option to create an account. Provide your RCRA Site ID Number and PIN when prompted. You will then be asked to setup a user profile for future access to the application.

By default, the user who sets up the application is given the Administrator role. The administrator has the option of establishing additional "data entry" type roles so that others may have access to the application for this RCRA Site ID Number. Please refer to the application help for a definition of user roles.

RCRA Site ID Number	ORD987201480
Personal Identification Number (PIN)	8172
Facility Name	Former Medford Plating Inc
Site Location	702 S GRAPE ST MEDFORD, OR 97501

Thank you for using HazWaste.Net. If you have any questions, please call DEQ in Portland at (503) 229-6938 or toll-free with the Oregon at 1-800-452-4011, extension 6938. You can also email your questions to **hazwaste@deq.state.or.us**.

SITE MAP
Medford Plating, Medford, OR
SMAF Project #TBD

SMAF ENVIRONMENTAL

Item H 000634

Re: 702 S Grape Street, Medford

OH Co

Tue 7/12/2016 3:43 PM

Sent Items

To:LOBATO Dan <dan.lobato@state.or.us>;

Hello,

Can we have e a copy of the complaint please?

We will have to research ORS 466.195, as we are not familiar with it, and will contact you in a few days.

Thank you.

General Property Group LLC

From: LOBATO Dan <dan.lobato@state.or.us>
Sent: Tuesday, July 12, 2016 2:47 PM
To: 'opropc@hotmail.com'
Subject: 702 S Grape Street, Medford

Mr. Curtin, my name is Dan Lobato and I am a hazardous waste compliance inspector for Oregon Department of Environmental Quality. I am working on a complaint we received regarding the above referenced property. Specifically, the business that operated there, Medford Plating, generated hazardous waste. Since the business ceased operations, we are concerned that plating chemicals (hazardous waste) were left behind. As the "new" owner of the property, you are required to manage and dispose of any chemicals that were used in the plating process and subsequently left on site. I am requesting access to 702 S Grape St, Medford, Oregon pursuant to authority provided by ORS 466.195 for the purpose of determining compliance with the State of Oregon's hazardous waste management requirements. Please be advised that failure to provide access is considered to be a Class I violation of Oregon Environmental Law, which may result in a civil penalty of up to $10,000 per day.

Please contact me to arrange for a time to meet at the property.

Dan Lobato
Compliance Specialist
Western Region Hazardous Waste Program
165 East 7th Ave., Suite 100, Eugene, OR 97401
541-686-7998 (direct line)
541-686-7551 (fax)
lobato.dan@deq.state.or.us

RE: 702 S Grape Street, Medford

LOBATO Dan <dan.lobato@state.or.us>

Tue 7/12/2016 4:06 PM

To: 'OH Co' <opropc@hotmail.com>;

1 attachments (154 KB)

Complaint162449.pdf;

Thanks for your response. The complaint was not filed as confidential, so I have attached a copy of the complaint. Be advised, I would like to access your facility this week, so please respond by July 13, 2016, tomorrow, by close of business. If I haven't heard from you by then, I will consider your lack of response as a denial of access and will proceed accordingly.

Thank you.

From: OH Co [mailto:opropc@hotmail.com]
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To: LOBATO Dan
Subject: Re: 702 S Grape Street, Medford

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lobato.dan@deq.state.or.us

Agency Complaints System

DEQ

Agency Complaints System > Complaint Intake > 16-2449

Complaint Intake : 16-2449

New Item | Edit Item | Workflows | Alert Me

Complaint Intake Information

Complaint Intake By	McMorrine Edith
Complaint Received On	7/7/2016
Complaint Received Via	Email
Assigned To	LOBATO Dan
Assigned To Manager	FULLER Brian
Sub-Program	LQ – Hazardous Waste
Pesticide Analytical Response Center (PARC) and DEQ PARC Representative Notified?	No
Out of DEQ Referral	

Complainant Information

Is Complaint Anonymous?	No
Keep Contact Info Confidential?	No
Would you like a complaint responder to contact you?	Yes
Complainant Name	Mark Warwick
Complainant Organization	City of Medford
Complainant Street Address	
Complainant City	
Complainant State	Oregon
Complainant Zip	
Complainant Primary Phone Type	
Complainant Primary Phone Number	
Complainant Alternative Phone Type	
Complainant Alternative Phone Number	
Complainant Email	Mark.Warwick@cityofmedford.org
Complainant Reporting for Someone Else?	
Is the Problem Experienced at Your Address?	

Incident Information

Date of Incident	
Time of Incident	
Alternative Date - Month	
Alternative Date - Year	
Is Incident Still Occurring?	Yes
If "No", When Did it Stop?	
Has This Been Reported Before?	No
If "Yes", Has the Situation Changed?	Same
Incident Media	Soil, Water
Incident Material	Chemical, Two 1000 gallon tanks one chrome other nickle
Quantity	
Incident Cause	Industrial Activity
Incident Description	"We have a situation here regarding a former 40 CFR 413 metal finisher (Medford Plating) in which the facility ceased operations in 2014. This is a plating shop that has been in operation since the 1960's. The then owner sold the building in November 2015 "as is" to an LLC who is now the legal owner. The building was sold with Chrome and Nickel plating bath tanks that contained up to 1000 gallons each of plating chemical. We terminated the existing IWDP as of the date of sale and have been trying to gain access to the building since November in order to do a site inspection and confirm the condition of the facility. The building owner has been non cooperative and has refused access stating that he's not a "user" of the sewer since he's not discharging and has not applied for nor been issued an IWDP. " an additional address for General Property Group, LLC: PO Box 8158 Medford OR 97501

Additional Odor Information

Odor Character	
Odor Frequency	

Odor Duration	
Odor Strength	
Odor Offensiveness	
Other Odor Information	

Incident Description

Incident Street Address	Medford Plating Inc
Incident City	702 S Grape St Medford OR 97501
Incident Zip Code	
Incident Neighborhood	
Incident Location is Inside City Limits?	N/A
Incident County	JACKSON
Incident Property/Land Owner	
Incident Waterway	
Incident Driving Directions	

Potential Responsible Party

Potential Responsible Party Name	Kevin Curtin, President (541-772-1113)
Potential Responsible Party Business	General Property Group LLC
Potential Responsible Party Address	15800 SW Boones Ferry Rd Ste A3
Potential Responsible Party City	Lake Oswego
Potential Responsible Party State	Oregon
Potential Responsible Party Zip Code	97035
Potential Responsible Party Telephone	opropc@hotmail.com

Have You Notified Others?

Did You Notify Anyone Else?	
Contact #1 - Agency/Organization	
Contact #1 - Person Contacted	
Contact #1 - Phone Number	
Contact #1 - Email	
Contact #2 - Agency/Organization	
Contact #2 - Person Contacted	
Contact #2 - Phone Number	
Contact #2 - Email	
Contact #3 - Agency/Organization	
Contact #3 - Person Contacted	
Contact #3 - Phone Number	
Contact #3 - Email	

Complaint Response

Program Priority	High
Does This Facility Have a DEQ Permit?	
DEQ Permit Type and Number	
Is "Nuisance Odor Evaluation Worksheet" Completed?	
Follow Up Action	
Complaint File Location	
Complaint Inspection Report	
Inspection Needed?	
Report/Info Requested?	
Complainant Contacted Date	
WL/PEN Number	
Staff Time to Resolve (00.0 hrs.)	
Resolution/Closed Date	
Attachments	

New Item | Edit Item | Workflows | Alert Me

Created at 7/7/2016 1:58 PM by MCMORRINE Edith
Last modified at 7/12/2016 6:47 AM by LOBATO Dan

RE: 702 S Grape Street, Medford

LOBATO Dan <dan.lobato@state.or.us>

Mon 8/8/2016 7:26 AM

To: 'OH Co' <opropc@hotmail.com>;

I will be there August 10th @ 11:00.

From: OH Co [mailto:opropc@hotmail.com]
Sent: Friday, August 05, 2016 2:13 PM
To: LOBATO Dan
Subject: Re: 702 S Grape Street, Medford

Hello,

We have hired an environmental consultant to address any concerns. He would be available to meet you at the property for consultation. Please let us know if you are available, and we will schedule a time. Thank you.

General Property Group LLC

From: LOBATO Dan <dan.lobato@state.or.us>
Sent: Thursday, July 28, 2016 9:56 AM
To: OH Co
Subject: RE: 702 S Grape Street, Medford

Having not heard back from you, I will be at 702 S Grape St., in Medford on August 10th at 11:00. I will be bringing a search warrant, local law enforcement and a locksmith. I will leave a copy of the warrant and directions at the 702 S Grape St. location on how you can get in touch with me to give you the new keys should we need to rekey the doors or locks.

Dan Lobato
Compliance Specialist
Western Region Hazardous Waste Program
165 East 7th Ave., Suite 100, Eugene, OR 97401
541-686-7998 (direct line)
541-686-7551 (fax)
lobato.dan@deq.state.or.us

From: OH Co [mailto:opropc@hotmail.com]
Sent: Friday, July 22, 2016 9:35 AM
To: LOBATO Dan
Subject: Re: 702 S Grape Street, Medford

We are working on a time frame.

We are not local.

From: LOBATO Dan <dan.lobato@state.or.us>
Sent: Thursday, July 21, 2016 3:16 PM
To: 'OH Co'
Subject: FW: 702 S Grape Street, Medford

Since I have not heard from you for a week, I will assume you are not going to provide access and I will pursue my other options.

From: LOBATO Dan
Sent: Tuesday, July 19, 2016 9:18 AM
To: 'OH Co'
Subject: RE: 702 S Grape Street, Medford

Can you meet on Friday?

From: OH Co [mailto:opropc@hotmail.com]
Sent: Friday, July 15, 2016 8:29 AM
To: LOBATO Dan
Subject: Re: 702 S Grape Street, Medford

We will check and get back to you shortly.

We are not in the area.

Thank you.

From: LOBATO Dan <dan.lobato@state.or.us>
Sent: Friday, July 15, 2016 7:02 AM
To: 'OH Co'
Subject: FW: 702 S Grape Street, Medford

I could also meet on Friday, July 22.

From: LOBATO Dan
Sent: Thursday, July 14, 2016 6:47 AM
To: 'OH Co'
Subject: RE: 702 S Grape Street, Medford

I am not in the office on Monday, can we meet on Tuesday?

From: OH Co [mailto:opropc@hotmail.com]
Sent: Wednesday, July 13, 2016 4:45 PM

To: LOBATO Dan
Subject: Re: 702 S Grape Street, Medford

I think we could meet you at the property Monday morning.

From: LOBATO Dan <dan.lobato@state.or.us>
Sent: Tuesday, July 12, 2016 4:06 PM
To: 'OH Co'
Subject: RE: 702 S Grape Street, Medford

Thanks for your response. The complaint was not filed as confidential, so I have attached a copy of the complaint. Be advised, I would like to access your facility this week, so please respond by July 13, 2016, tomorrow, by close of business. If I haven't heard from you by then, I will consider your lack of response as a denial of access and will proceed accordingly.

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Thank you.

General Property Group LLC

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Please contact me to arrange for a time to meet at the property.

Dan Lobato

RE: 702 S Grape Street, Medford

LOBATO Dan <dan.lobato@state.or.us>

Mon 8/8/2016 7:33 AM

To:'OH Co' <opropc@hotmail.com>;

Will the consultant have keys to the building?

From: OH Co [mailto:opropc@hotmail.com]
Sent: Friday, August 05, 2016 2:14 PM
To: LOBATO Dan
Subject: Re: 702 S Grape Street, Medford

Hello,

We have hired an environmental consultant to address any concerns. He would be available to meet you at the property for consultation. Please let us know if you are available, and we will schedule a time. Thank you.

General Property Group LLC

From: LOBATO Dan <dan.lobato@state.or.us>
Sent: Thursday, July 28, 2016 9:56 AM
To: OH Co
Subject: RE: 702 S Grape Street, Medford

Having not heard back from you, I will be at 702 S Grape St., in Medford on August 10th at 11:00. I will be bringing a search warrant, local law enforcement and a locksmith. I will leave a copy of the warrant and directions at the 702 S Grape St. location on how you can get in touch with me to give you the new keys should we need to rekey the doors or locks.

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541-686-7998 (direct line)
541-686-7551 (fax)
lobato.dan@deq.state.or.us

From: OH Co [mailto:opropc@hotmail.com]
Sent: Friday, July 22, 2016 9:35 AM
To: LOBATO Dan
Subject: Re: 702 S Grape Street, Medford

Re: 702 S Grape Street, Medford

OH Co

Mon 8/8/2016 8:38 AM

Sent Items

To: LOBATO Dan <dan.lobato@state.or.us>;

Yes, he has the keys.

Can you meet him on Tuesday the 9th between 10 and 11?

From: LOBATO Dan <dan.lobato@state.or.us>
Sent: Monday, August 8, 2016 7:38 AM
To: 'OH Co'
Subject: RE: 702 S Grape Street, Medford

Will the consultant have keys to the building?

From: OH Co [mailto:opropc@hotmail.com]
Sent: Friday, August 05, 2016 2:14 PM
To: LOBATO Dan
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Dan Lobato
Compliance Specialist
Western Region Hazardous Waste Program

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To: 'OH Co'
Subject: FW: 702 S Grape Street, Medford

I could also meet on Friday, July 22.

From: LOBATO Dan
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To: 'OH Co'
Subject: RE: 702 S Grape Street, Medford

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To: 'OH Co'
Subject: RE: 702 S Grape Street, Medford

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Thank you.

General Property Group LLC

Re: 702 S Grape Street, Medford

OH Co

Mon 8/8/2016 12:32 PM

Sent Items

To:LOBATO Dan <dan.lobato@state.or.us>;

SMAF Environmental LLC.

From: LOBATO Dan <dan.lobato@state.or.us>
Sent: Monday, August 8, 2016 9:40 AM
To: 'OH Co'
Subject: RE: 702 S Grape Street, Medford

I can be there on Tuesday. Between 10 and 11. What is the name of the consultant or the consulting company?

From: OH Co [mailto:opropc@hotmail.com]
Sent: Monday, August 08, 2016 8:39 AM
To: LOBATO Dan
Subject: Re: 702 S Grape Street, Medford

Yes, he has the keys.

Can you meet him on Tuesday the 9th between 10 and 11?

From: LOBATO Dan <dan.lobato@state.or.us>
Sent: Monday, August 8, 2016 7:38 AM
To: 'OH Co'
Subject: RE: 702 S Grape Street, Medford

Will the consultant have keys to the building?

From: OH Co [mailto:opropc@hotmail.com]
Sent: Friday, August 05, 2016 2:14 PM
To: LOBATO Dan
Subject: Re: 702 S Grape Street, Medford

Hello,

We have hired an environmental consultant to address any concerns. He would be available to meet you at the property for consultation. Please let us know if you are available, and we will schedule a time. Thank you.

General Property Group LLC

Medford Plating

LOBATO Dan <dan.lobato@state.or.us>

Wed 8/24/2016 1:59 PM

To: 'OH Co' <opropc@hotmail.com>;

Mr. Curtin, thank you for providing access to your facility, Medford Plating, on August 9, 2016. Please be advised, that as a result of my inspection, I have forwarded my investigation notes to the Office of Compliance and Enforcement for follow-up.

While I was on-site, Mr. Pieper of SMAFF Environmental told me he would be quantifying the tanks and chemicals during the sampling effort SMAFF performed on August 9, 2016. Please submit to me the results of the SMAFF characterization, including chemical quantities, sample locations and numbers. You can either send them via email or through the mail at the address below.

My hope is to have clear and open lines of communication to ensure the safe and timely management of the hazardous substances that were not being managed appropriately.

Dan Lobato
Compliance Specialist
Western Region Hazardous Waste Program
165 East 7th Ave., Suite 100, Eugene, OR 97401
541-686-7998 (direct line)
541-686-7551 (fax)
lobato.dan@deq.state.or.us

RE: Medford Plating

LOBATO Dan <dan.lobato@state.or.us>

Thu 8/25/2016 9:49 AM

To:'OH Co' <opropc@hotmail.com>;

Understood, the use of the name Medford Plating is being used to describe the building and what it was used for prior to your purchase. I will revise those terms.

From: OH Co [mailto:opropc@hotmail.com]
Sent: Thursday, August 25, 2016 9:40 AM
To: LOBATO Dan
Subject: Re: Medford Plating

Okay, please send the investigation memo.

Also, we do not own Medford Plating.

Medford Plating is a defunct business that we did not buy.

General Property Group LLC does own the building that use to house it.

Thank you.

From: LOBATO Dan <dan.lobato@state.or.us>
Sent: Thursday, August 25, 2016 9:28 AM
To: 'OH Co'
Subject: RE: Medford Plating

If you just want the investigation memo, I can send right away. If you want all records and files, you need to do a public records request. You can do a public records request at the following location:
http://www.deq.state.or.us/records/RecordRequests.htm

Oregon DEQ: Requesting Records

www.deq.state.or.us

Oregon's Public Records Law (OAR 340-011-0310 - 0390) guides access to public records. How to find information Some frequently requested information may be available ...

From: OH Co [mailto:opropc@hotmail.com]
Sent: Wednesday, August 24, 2016 2:16 PM

State of Oregon
Department of Environmental Quality Memorandum

Date: August 16, 2016

To: **Complaint File #16-2449**

From: Dan Lobato
Hazardous Waste Compliance - Eugene

Subject: **702 S Grape Street, Medford, OR (formerly Medford Plating) Investigation**

The Department received the above referenced complaint on July 7, 2016. I was assigned the complaint shortly thereafter. I contacted the complainant to get more information. The complainant, City of Medford, had been trying to access a recently closed plating shop to ensure the chemicals had been removed from the building because the City of Medford was concerned that the chemicals might be released to the City's combined stormwater/sewage system. The Medford Plating (facility) had closed in 2014 and was sold "as is" in November 2015. The new owner was aware of the chemicals left on-site according to the property transaction documents. The new owner of record is General Property Group, LLC (GPG), Kevin Curtin, president, 15800 SW Boones Ferry Road Ste A3, Lake Oswego, OR 97035. (Warranty Deed 2015-036749 attached).

My first attempt at getting access to the facility occurred on July 12, 2016. I tried unsuccessfully to contact Mr. Curtin by phone. I then sent an email to what was identified as GPG's email address. In my email, I requested access to the facility and provided the statutory authority for doing such. I received an email message from GPG stating they would research the statutory authority and get back to me. We exchanged a few emails without resolution for a few weeks, with my last being sent on July 28th, 2016 informing GPG that I would be obtaining an access warrant and that I would be on-site on August 10th, 2016. I got an email from GPG on August 8th, 2016 informing me that GPG had hired an environmental consultant that would be at the facility on August 9th, 2016 and would let me in and address my concerns.

Craig Filip, ODEQ, arrived at the former Medford Plating building on August 9th, 2016 at 11:00 am. Mr. Filip accompanied me to photo-document the site while I took notes. We arrived at the site and were met by Mr. Scott Pieper of SMAF Environmental. Mr. Pieper indicated he was hired by a real estate agent named "Patricia" who was acting for the owner Mr. Curtin. Mr. Pieper asked if I had been inside the building and I said I had not. Mr. Pieper told me that he had been on site 3 weeks ago to do a site walk prior to the sampling event, after I had emailed Mr. Curtin initially.

The facility consists of an approximately 1500 square foot cinder block building with an office area, plating room, polishing room and chemical storage room. (photo 1-8) The outside area has a concrete surface with drains and a chain link fence around the area.

SMAF did an inventory of all chemicals, waste and products, found throughout the facility. (see attached inventory)

The plating room is a large room with eleven process vats/tanks. In addition, there were five 250 gallon totes and two small containers of spent filters. (photo # 15-32)

The next area we went into was the chemical storage room. There were numerous containers of hazardous chemicals inside of this room. In addition, there was a container labeled "unichrome" (chromic oxide) that was leaking. (see photo #34-58) Several spent fluorescent lamps were on the floor of this room.

We then looked at the outside area which included an alcove (covered) area on the west side of the building. There were three tanks/vats in this location. There were also 20+ spent mercury containing fluorescent lamps on the ground in the alcove area. (see photo #12)

We then went into the polishing room. (photo #59-61) A dust collection system was used in the polishing room. This system discharged to a 55-gallon drum on the outside of the building. This container had an accumulation of dust (waste). (photo #8)

In addition, outside of the building, in the back, were two large tanks that were empty, but had a couple inches of rainwater in them. Two smaller tanks were MT, stored on their side. (photo #4,5,6 and 14)

Also outside of the building there were several drains in the concrete. There were two large sumps that contained liquid/sludge. The drains and sumps appear to be stormwater related. (photo #9,10 and 11)

Due to the quantity of hazardous chemicals at this location, mainly corrosives and heavy metals, the length of time they have not been actively managed or monitored, (since November 2015), an already leaking chromium oxide container and the fact that the building is unmanned, the threat of a release to the environment is imminent, I am recommending we issue a Remedial Action Order to ensure the timely management and removal of hazardous waste and chemicals from this facility.

Fw: Lab Results

Patricia Curtin <Patricia_Curtin@hotmail.com>

Wed 9/14/2016 7:37 PM

To: opropc@hotmail.com <opropc@hotmail.com>;

From: Scott Pieper <rscottp@whhsmaf.com>
Sent: Tuesday, September 13, 2016 7:38 AM
To: Patricia Curtin
Subject: Re: Lab Results

Hi Patricia,
It has been sent.
What was the substance of the conversation with Dan? Did he provide any direction or instructions? We want to make sure we address all of his concerns.
I am still awaiting disposal costs.
Regards,

> On September 12, 2016 at 5:38 PM Patricia Curtin <Patricia_Curtin@hotmail.com> wrote:
>
> Hi Scott,
>
> Thank you for sending this. Yes, we have had contact with Dan Lobato since we last spoke. You can send him the results. Thank you again.

From: Scott Pieper <rscottp@whhsmaf.com>
Sent: Friday, September 9, 2016 3:06:52 PM
To: Patricia Curtin
Subject: Re: Lab Results

Here are the lab results, along with the chemical inventory and the tank volumes.
Let me know when I can send them to Mr. Lobato.
Have you spoken with him?

> On September 9, 2016 at 2:43 PM Patricia Curtin <Patricia_Curtin@hotmail.com> wrote:
>
> Hi Scott,
>
> I hope you are doing well. Yes, it would be fine to send them to Dan, but we would like to see the results first. Thank you so much!
>
> Sincerely,

Patricia
(541) 292-0433

From: Scott Pieper <rscottp@whhsmaf.com>
Sent: Friday, September 9, 2016 11:41:26 AM
To: patricia_curtin@hotmail.com
Subject: Lab Results

Hi Patricia,
The lab results are in. My disposal vendor is working up prices.
I would like to send the results to Dan Lobato with DEQ, along with the inventory.
May I send these?
Have you had talks with Dan as we discussed previously?
Thanks

R. Scott Pieper, R.G.
Environmental Services Manager
SMAF Environmental LLC
2260 NW Industrial Park Road
Prineville, OR 97754
(800) 875-7069 24-hour Spill Response Hotline
(541) 447-5643 Office
(541) 233-7830 Mobile

Fwd: 702 S Grape Street Remedial Action Order

Patricia Curtin

Thu 10/6/2016 11:09 AM

To: opropc@hotmail.com <opropc@hotmail.com>;

Sent from my U.S. Cellular® Smartphone

-------- Original message --------
From: Scott Pieper <rscottp@whhsmail.com>
Date: 10/06/2016 10:33 AM (GMT-08:00)
To: LOBATO Dan <dan.lobato@state.or.us>
Cc: patricia_curtin@hotmail.com, opropc@hotmail.com, ELWORTH Susan <susan.elworth@state.or.us>
Subject: RE: 702 S Grape Street Remedial Action Order

Mr Lobato,

Thank you for forwarding me the order. I believe we will have the remedial action plan ready by the end of next week. In order to be sure, I request an extension for submittal of the plan to October 28th. Testing the sumps was not previously on my list. I will need to test the sumps to determine what actions, if any, are necessary.

Given the findings of the previous lab results, I propose we sample the sumps and test for the following:

- pH
- RCRA-8 Metals, plus zinc and nickel

Do you require any further analyses?

Regards,

> On October 6, 2016 at 9:35 AM LOBATO Dan <dan.lobato@state.or.us> wrote:
>
> **Scott, I will be doing the extension request, we can do through email, however, written is preferred. Let me know how much of an extension you need and I will respond.**
>
> **I have attached a copy of the order.**
>
> *Dan Lobato*
>
> Compliance Specialist
>
> Western Region Hazardous Waste Program

165 East 7th Ave., Suite 100, Eugene, OR 97401

541-686-7998 (direct line)

541-686-7551 (fax)

lobato.dan@deq.state.or.us

From: Scott Pieper [mailto:rscottp@whhsmaf.com]
Sent: Wednesday, October 05, 2016 3:57 PM
To: ELWORTH Susan
Cc: LOBATO Dan; opropc@hotmail.com
Subject: Re: 702 S Grape Street Remedial Action Order

Hi Susan,

I am working with the disposal company, NRC, to come up with a work plan. I hope to have this complete next week. Therefore, I am requesting an extension to the October 7 deadline, since I was unaware of this deadline until I received your e-mail.

Would you provide me with a copy of the order, so I can make sure we are helping our client with compliance?

Thank you,

> On September 30, 2016 at 12:25 PM ELWORTH Susan <susan.elworth@state.or.us> wrote:
>
> Gentlemen – Thank you for the updates your provided in your emails on September 23rd and 28th. I thought it would prove helpful to outline the requirements in the Order and the dates certain documentation is required to be submitted to DEQ. If any of these dates are unworkable, please contact Dan Lobato as soon as possible so that DEQ can provide a formal extension of the compliance date, if appropriate.
>
> Since service of the Order was perfected on September 16, 2016, each of the compliance dates contained in Section V will run from that date.
>
> 1. Section V, paragraph 1 requires you to provide DEQ with notice that you intend to comply with the Order prior to **September 26, 2016**. This item was received on September 23, 2016.
> 2. Section V, paragraph 2.C requires you to provide DEQ with notice of the project manager prior to **October 1, 2016**. I am assuming that is Mr. Pieper. If not, please let me know who DEQ should be corresponding with in regards to the Order.
> 3. Section V, paragraph 2.D.ii requires you to provide to DEQ prior to **October 7, 2016** a plan which addresses the following:

- Actions which will be taken to characterize all of the items at the facility listed in Section III, paragraph 4 including the liquid in the sumps outside the building; and

- Actions which will be taken to transport and dispose of all the solid and hazardous waste at the facility.

As of this date, DEQ has received an inventory and sample results for the items located inside the building and Mr. Pieper's email from September 28th includes information on how further characterization of those items will be completed. Note that DEQ has yet to receive a plan for how the liquids in the sumps will be characterized.

4. Section V, paragraph 2.D.iii requires you to implement the plan submitted under Section V, paragraph 2.D.ii within 30 days after DEQ approves that plan.

If you have any questions regarding the work required under the Order, please contact Dan Lobato directly at 5416867998. Otherwise feel free to contact me with any questions.

Susan M. Elworth, JD

Department of Environmental Quality

(503) 229-5152

This November, DEQ's Headquarters Office will be moving to a new location - the 700 Lloyd Building at 700 NE Multnomah St., Suite #600, Portland, OR 97232. The target date for operating at the new location is November 7th, 2016

RE: 702 S Grape Street Remedial Action Order

ELWORTH Susan <susan.elworth@state.or.us>

Thu 10/6/2016 3:52 PM

To: LOBATO Dan <dan.lobato@state.or.us>; 'Scott Pieper' <rscottp@whhsmaf.com>;

Cc: patricia_curtin@hotmail.com <patricia_curtin@hotmail.com>; opropc@hotmail.com <opropc@hotmail.com>;

1 attachments (339 KB)

201610061522.pdf;

All – Attached is the letter allowing an extension until October 28, 2016. Thank you - Susan

From: LOBATO Dan [mailto:dan.lobato@state.or.us]
Sent: Thursday, October 06, 2016 1:33 PM
To: 'Scott Pieper'; LOBATO Dan
Cc: patricia_curtin@hotmail.com; opropc@hotmail.com; ELWORTH Susan
Subject: RE: 702 S Grape Street Remedial Action Order

Hi Scott,

I have approved the extension to the 28th of October, 2016. I have talked to the Office of Compliance and Enforcement and they will be drafting the extension letter to be signed by the Compliance Manager today (because it is a compliance date in a Department Order).

I agree with your proposal of what analytes to test the sumps for. That should cover the sumps.

Thanks for your attention to the compliance dates as violating the order could lead to additional civil penalties that can be avoided.

If you have any questions, don't hesitate to call or email me.

Thanks again.

Dan Lobato
Compliance Specialist
Western Region Hazardous Waste Program
165 East 7th Ave., Suite 100, Eugene, OR 97401
541-686-7998 (direct line)
541-686-7551 (fax)
lobato.dan@deq.state.or.us

From: Scott Pieper [mailto:rscottp@whhsmaf.com]
Sent: Thursday, October 06, 2016 10:25 AM
To: LOBATO Dan

Cc: patricia_curtin@hotmail.com; opropc@hotmail.com; ELWORTH Susan
Subject: RE: 702 S Grape Street Remedial Action Order

Mr Lobato,

Thank you for forwarding me the order. I believe we will have the remedial action plan ready by the end of next week. In order to be sure, I request an extension for submittal of the plan to October 28th. Testing the sumps was not previously on my list. I will need to test the sumps to determine what actions, if any, are necessary.

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- pH
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Do you require any further analyses?

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> As of this date, DEQ has received an inventory and sample results for the items located inside the building and Mr. Pieper's email from September 28th includes information on how further characterization of those items will be completed.

Note that DEQ has yet to receive a plan for how the liquids in the sumps will be characterized.

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If you have any questions regarding the work required under the Order, please contact Dan Lobato directly at 5416867998. Otherwise feel free to contact me with any questions.

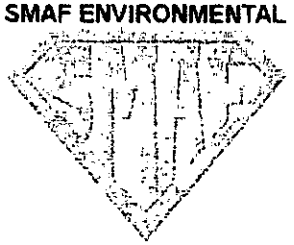
Susan M. Elworth, JD

Department of Environmental Quality

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SMAF ENVIRONMENTAL



Dan Lobato
Compliance Specialist
Western Region Hazardous Waste Program
165 East 7th Ave., Suite 100, Eugene, OR 97401

RE: Disposal Plan for Medford Metals, 702 S Grape Street, Medford

Mr. Lobato,

SMAF Environmental and NRC will perform the removal action for General Properties Group at the former Medford Metals facility.

Crews with appropriate PPE with use compatible transfer pumps to empty the dip tanks into totes, or use the liquid vac truck to combine contents for shipment as detailed below:

Source	Packaging	Destination
Tank 2	Transfer to totes	Chem Waste, Arlington OR
Tank 3	Transfer to totes	Chem Waste, Arlington OR
Tank 4	Transfer to totes	Chem Waste, Arlington OR
Tanks5, 6,7,8, 9, 11	Consolidate in Tanker	Chem Waste, Arlington OR
Tanks O-1, O-2	Transfer to Totes	Chem Waste, Arlington OR
Totes 1-5	Ship as is	Chem Waste, Arlington OR
55-gallon drums of Acid	Ship as is	Chem Waste, Arlington OR
1-gallon containers	Combine in Drums	Chem Waste, Arlington OR
5-gallon containers	Combine in Drums	Chem Waste, Arlington OR
Non-hazardous items	Combine in drums	Hillsboro Landfill

SMAF ENVIRONMENTAL

Totes will be loaded by forklift onto a placarded dry van.

Bulk liquid will be shipped in an 80-bbl liquid tanker, non-haz.

55-gallon drums will loaded onto a flatbed truck

Non-hazardous items will also be transported by the flatbed truck.

All of the hazardous materials will be transported to the Chemical Waste Facility in Arlington, OR, where they will be segregated and sent to appropriate disposal.

Non-hazardous items will be delivered to the Waste Management Hillsboro landfill.

Per our previous conversation, the liquid in the sumps will be left in place, based on the laboratory results.

Please let me know if you have any questions.

Regards,

Scott Pieper
SMAF Environmental LLC

General Property Group LLC

P.O. Box 8158
Medford, OR 97501

December 2, 2016

Dan Lobato
Western Region Hazardous Waste Program
165 East 7th Ave, Suite 100
Eugene, OR 97401

Dear Mr. Lobato:

Scott Pieper and SMAF Environmental, LLC are no longer working on the remediation project at 702 S Grape Street, Medford. We will now be working with Clean Harbors Environmental Services, Inc. Clean Harbors Environmental Services, Inc. will not be available to dispose of the waste until January. We are waiting for them to get back to us with an exact date. We would like to request an extension through the end of January due to the scheduling issue. We will let you know the exact date as soon as we hear back from them. Thank you for your time.

Sincerely,

General Property Group LLC

RE: 702 S Grape St

LOBATO Dan <dan.lobato@state.or.us>

Wed 12/7/2016 3:24 PM

To:OH Co <opropc@hotmail.com>;

Mr. Curtin:

I have consulted with the Office of Compliance and Enforcement and my manager regarding your request for an extension to the previously extended date of December 9th, 2016.

We will need to see an updated disposal plan as required under the Order since the last plan is no longer valid. In addition, I would like to have a contact at Clean Harbors to interface with.

Please submit the updated plan and new project manager/contact as soon as possible but no later than Tuesday, December 13th.

Failure to submit the plan by the above date will be considered failure to comply with the order.

Respectfully,

Dan Lobato

From: OH Co [opropc@hotmail.com]
Sent: Monday, December 05, 2016 8:19 AM
To: LOBATO Dan
Subject: 702 S Grape St

Dear Mr. Lobato:

Please see the attached letter. Thank you.

Sincerely,

General Property Group LLC

Re: 702 S Grape St

OH Co

Tue 12/13/2016 5:19 PM

Sent Items

To: LOBATO Dan <dan.lobato@state.or.us>;

1 attachments (332 KB)

GPG Plan (CH).pdf;

Dear Mr. Lobato:

Please see the attached disposal plan. Thank you.

Sincerely,

General Property Group LLC

From: LOBATO Dan <dan.lobato@state.or.us>
Sent: Wednesday, December 7, 2016 3:22 PM
To: OH Co
Subject: RE: 702 S Grape St

Mr. Curtin:

I have consulted with the Office of Compliance and Enforcement and my manager regarding your request for an extension to the previously extended date of December 9th, 2016.

We will need to see an updated disposal plan as required under the Order since the last plan is no longer valid. In addition, I would like to have a contact at Clean Harbors to interface with.

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To: LOBATO Dan
Subject: 702 S Grape St

General Property Group LLC

P.O. Box 8158
Medford, OR 97501

December 12, 2016

Dan Lobato
Compliance Specialist
Western Region Hazardous Waste Program
165 East 7th Ave, Suite 100
Eugene, OR 97401

Dear Mr. Lobato:

Clean Harbors Environmental Services, Inc. will perform the removal action at 702 S Grape St.

Details of the intended disposal plan are as follows:

1) Tanks 2, 3, 4, O-1, and O-2 will be vacuumed out and transferred to totes for disposal
2) Tanks 5, 6, 7, 8, 9, and 11 will be consolidated in a tanker for disposal
3) Totes 1-5 will be shipped as is
4) 55-gallon drums of Acid will be shipped as is
5) Smaller quantity chemicals will be combined in 30 and 55 gallon drums by Clean Harbor's Labpack team
6) Totes and drums will be transported via box truck
7) Based on laboratory results, the liquid in the sumps will be left in place

This disposal plan will be performed in two parts:

Part 1

The tanks will be vacuumed out and the waste will be transferred to totes or the tanker for disposal. The waste in the tanker will removed and disposed of at this time.

Part 2

Once the waste in the tanks is transferred to totes, the totes and drums will be removed via box truck. The Labpack team will pack the smaller quantity chemicals at this time, to be shipped via box truck.

Please let us know if you have any questions. Thank you.

Sincerely,

General Property Group LLC

RE: 702 S Grape St

LOBATO Dan <dan.lobato@state.or.us>

Wed 12/14/2016 8:19 AM

To: 'OH Co' <opropc@hotmail.com>;

I also need a disposal date and a project manager to interface with.

From: OH Co [mailto:opropc@hotmail.com]
Sent: Tuesday, December 13, 2016 5:20 PM
To: LOBATO Dan
Subject: Re: 702 S Grape St

Dear Mr. Lobato:

Please see the attached disposal plan. Thank you.

Sincerely,

General Property Group LLC

From: LOBATO Dan <dan.lobato@state.or.us>
Sent: Wednesday, December 7, 2016 3:22 PM
To: OH Co
Subject: RE: 702 S Grape St

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Dear Mr. Lobato:

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Sincerely,

General Property Group LLC

Re: 702 S Grape St

OH Co

Fri 12/23/2016 1:17 PM

Sent Items

To: LOBATO Dan <dan.lobato@state.or.us>;

Dear Mr. Lobato:

Clean Harbors has confirmed that they will be conducting Part 1 of our clean up plan during the first week of January. They do not know which day it will be. The will let us know as soon as possible. Once they finish Part 1, they will schedule Part 2. We expect Part 2 to be conducted the following week. General Property Group LLC will be the project manager moving forward. Thank you.

Sincerely,

General Property Group LLC

From: LOBATO Dan <dan.lobato@state.or.us>
Sent: Wednesday, December 21, 2016 7:53 AM
To: 'OH Co'
Subject: RE: 702 S Grape St

I haven't heard from you folks about missing parts of the disposal plan. Please update soon to avoid additional penalties associated with missing the compliance dates.

Dan Lobato
Compliance Specialist
Western Region Hazardous Waste Program
165 East 7th Ave., Suite 100, Eugene, OR 97401
541-686-7998 (direct line)
541-686-7551 (fax)
lobato.dan@deq.state.or.us

From: OH Co [mailto:opropc@hotmail.com]
Sent: Tuesday, December 13, 2016 5:20 PM
To: LOBATO Dan
Subject: Re: 702 S Grape St

Dear Mr. Lobato:

RE: 702 S Grape St

LOBATO Dan <dan.lobato@state.or.us>

Tue 1/3/2017 7:12 AM

To:'OH Co' <opropc@hotmail.com>;

Any news on date for disposal this week?

From: OH Co [mailto:opropc@hotmail.com]
Sent: Friday, December 23, 2016 1:17 PM
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From: OH Co [mailto:opropc@hotmail.com]
Sent: Tuesday, December 13, 2016 5:20 PM
To: LOBATO Dan
Subject: Re: 702 S Grape St

Re: 702 S Grape St

'OH Co

Fri 1/13/2017 3:34 PM

Sent Items

To:LOBATO Dan <dan.lobato@state.or.us>;

We are waiting on Clean Harbors for a time frame.

From: LOBATO Dan <dan.lobato@state.or.us>
Sent: Friday, January 13, 2017 7:03 AM
To: 'OH Co'
Subject: RE: 702 S Grape St

Please contact me with the updated schedule by close of business today to prevent the Department from enforcing the Remedial Action Order.

Dan Lobato
Compliance Specialist
Western Region Hazardous Waste Program
165 East 7th Ave., Suite 100, Eugene, OR 97401
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General Property Group LLC

RE: 702 S Grape St

LOBATO Dan <dan.lobato@state.or.us>

Tue 2/7/2017 9:08 AM

To: 'OH Co' <opropc@hotmail.com>;

We have to get this moving, I am getting pressure from above to get this finished. What is the status?

From: OH Co [mailto:opropc@hotmail.com]
Sent: Monday, January 30, 2017 6:32 PM
To: LOBATO Dan
Subject: Re: 702 S Grape St

We are still waiting.
They had a couple of questions that we answered.

From: LOBATO Dan <dan.lobato@state.or.us>
Sent: Friday, January 27, 2017 7:43 AM
To: 'OH Co'
Subject: RE: 702 S Grape St

Any news?

From: OH Co [mailto:opropc@hotmail.com]
Sent: Friday, January 13, 2017 3:35 PM
To: LOBATO Dan
Subject: Re: 702 S Grape St

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RE: 702 S Grape St

LOBATO Dan <dan.lobato@state.or.us>

Tue 2/7/2017 12:12 PM

To:'OH Co' <opropc@hotmail.com>;

That's great news! Can you find out when?

From: OH Co [mailto:opropc@hotmail.com]
Sent: Tuesday, February 07, 2017 12:10 PM
To: LOBATO Dan
Subject: Re: 702 S Grape St

Clean harbors is performing part of it tomorrow I believe.

From: LOBATO Dan <dan.lobato@state.or.us>
Sent: Tuesday, February 7, 2017 9:07 AM
To: 'OH Co'
Subject: RE: 702 S Grape St

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Subject: Re: 702 S Grape St

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Item H 000674

702 S Grape St Manifests

OH Co

Fri 3/24/2017 6:31 PM

Sent Items

To: LOBATO Dan <dan.lobato@state.or.us>;

1 attachments (16 kB)

Manifest_Tracking (702 S Grape St)1.pdf;

Hello,

Attached is the manifest tracking summary from Clean Harbors. Thank you.

Cleanharbors

Manifest Track _ Report

Run Date: 3/16/2

Manifests generated from 2/1/2016 through 3/16/2017

Mnfst No	Generator EPA Id	Generator Code	Job Site Address	Sales Order	Tran 1	Mnfstd Facility Name	Gen Sign Date	Mnfstd Facility Recd Date	Mnfst Return Days	Weight Ticket
009996389FLE	CESQG	ME33097	702 S Grape st Medford, OR 97501	1700123396-001	Clean Harbors Environmental Service, Inc.	Clean Harbors Aragonite LLC	1/11/2017	1/31/2017		
010466154FLE	CESQG	ME33097	702 S Grape st Medford, OR 97501	1700123396-001	Clean Harbors Environmental Service, Inc.	Clean Harbors Aragonite LLC	2/15/2017	3/9/2017		
010466155FLE	CESQG	ME33097	702 S Grape st Medford, OR 97501	1700123396-001	Tri State Motor Transit	Clean Harbors Arizona LLC	2/15/2017	3/2/2017	19	
W170792997	CESQG	ME33097	702 S Grape st Medford, OR 97501	1700494230-003	Clean Harbors Environmental Service, Inc.	WM-Hillsboro Landfill	2/8/2017	2/9/2017		
010466150FLE	CESQG	ME33097	702 S Grape st Medford, OR 97501	1700123396-002	Clean Harbors Environmental Service, Inc.	Clean Harbors Grassy Mountain LLC	2/15/2017	3/1/2017	16	
010466151FLE	CESQG	ME33097	702 S Grape st Medford, OR 97501	1700123396-002	Tri State Motor Transit	Clean Harbors Environmental Service, Inc.	2/15/2017	3/9/2017	22	
010466152FLE	CESQG	ME33097	702 S Grape st Medford, OR 97501	1700123396-002	Tri State Motor Transit	Clean Harbors Arizona LLC	2/15/2017	3/10/2017		
010466157FLE	CESQG	ME33097	702 S Grape st Medford, OR 97501	1700123396-003	Clean Harbors Environmental Service, Inc.	Clean Harbors Grassy Mountain LLC	2/15/2017	3/6/2017	22	
010466153FLE	CESQG	ME33097	702 S Grape st Medford, OR 97501	1700123396-003	Tri State Motor Transit	Clean Harbors Arizona LLC	2/15/2017	3/2/2017	20	

RE: 702 S Grape St Manifests

LOBATO Dan <dan.lobato@state.or.us>

Thu 3/30/2017 10:07 AM

To:'OH Co' <opropc@hotmail.com>;

Cc:ELWORTH Susan <susan.elworth@state.or.us>;

Thank you for the submittal, however, I need legible copies of all manifests related to your disposal plan, not just the tracking summary. Please submit as soon as possible.

Thanks.

From: OH Co [mailto:opropc@hotmail.com]
Sent: Friday, March 24, 2017 6:32 PM
To: LOBATO Dan <dan.lobato@state.or.us>
Subject: 702 S Grape St Manifests

Hello,

Attached is the manifest tracking summary from Clean Harbors. Thank you.

Re: 702 S Grape St Manifests

OH Co

Thu 3/30/2017 5:22 PM

Sent Items

To: LOBATO Dan <dan.lobato@state.or.us>;

Hello,

The blue numbers on the left of the tracking summary are all links to the manifests. Click on the manifest number to see the full document. Thank you.

From: LOBATO Dan <dan.lobato@state.or.us>
Sent: Thursday, March 30, 2017 10:06 AM
To: 'OH Co'
Cc: ELWORTH Susan
Subject: RE: 702 S Grape St Manifests

Thank you for the submittal, however, I need legible copies of all manifests related to your disposal plan, not just the tracking summary. Please submit as soon as possible.

Thanks.

From: OH Co [mailto:opropc@hotmail.com]
Sent: Friday, March 24, 2017 6:32 PM
To: LOBATO Dan <dan.lobato@state.or.us>
Subject: 702 S Grape St Manifests

Hello,

Attached is the manifest tracking summary from Clean Harbors. Thank you.

Western States
Environmental Services, Inc.

2016

SCHEDULE OF FEES – Labor

Standard Rates	UNIT	FEE ($)
Consultation (Including Principal or Environmental Professional as per ASTM 1527-05)	Hour	94.00
Project Manager & UST/HOT Supervisor	Hour	81.00
Asbestos, Hazmat and Construction Superintendent	Hour	72.00
Asbestos, Hazmat and construction Worker	Hour	57.00

Emergency response (within 24 hours), add 50% to the above rates.

Overtime rates, after 5:00PM, Monday through Friday and all day Saturday to be invoiced at 2 times, Sundays and Holidays to be invoiced at 2.5 times the above rates.

Mileage of company or employee owned vehicles which are directly related to the project will be invoiced at $0.51 per mile.

Markup
All costs except for labor to invoiced at cost plus 25% for Overhead, Profit and 2.5 % for Environmental insurance as required.

Notes:
1. **These prices good for the year 2016 only.**
2. **Minimum fee of $750 per callout for crew response.**
3. **Minimum 4 hours for UST / HOT individual response.**

Accepted by: K J Cat, President **Date:** 6/14/16

Billing Address: General Properties Group LLC
PO Box 8158
Medford, OR 97501

TERMS: Net due and payable on completion of work. A finance charge of 1.5% (18% per year) will be added to any amount unpaid after 30 days of invoice date.

Western States Environmental Services, Inc.

July 8, 2016

General Properties Group, LLC
P{O Box 8158
Medford, OR 97501

Attn: Patricia Curtin Phone: 541 840-0410 e-mail: northwestproperty.group@outlook.com

Re: 702 S Grape St. Medford – Medford Plating
Quote: 16-091

Western States Environmental Services, Inc. (WSES) proposes to supply all labor and equipment to access and quote hazardous materials disposal from an abandoned metal plating facility. Our bid includes the following major elements:

Phase I – Process Identification
1. Identify and document the main operational process.
2. Collect initial metal processing vat contents and Assess for metals, pH, and primary bath contents.

Phase II – Identify/access materials (liquid)
1. Specify contents by vat (bath) and generate inventory for disposal.
2. Provide proposal for disposal.

Our estimated price (work to be done on a time and materials basis) for the identified scope of work is:

TWENTY TWO THOUSAND DOLLARS ($22,000.00)

Notes:
1. Phase will utilize the expertise of a local plating expert.
2. Phase II will utilize the resources of a transport and disposal company to define and propose disposal requirements.
3. All laboratory analysis will be preceded by an estimated cost and approval by client prior to submittal.

Regards,
Western States Environmental Services, Inc.

John Early
President

Accepted by: _____ Date: _____

Terms: Net due and payable on completion of work. A finance charge of 1.5% (18% per year) will be added to any amount unpaid each 30 days after invoice date.

Proposal Accepted by:
X [signature] Project manager
General Property Group LLC

SMAF ENVIRONMENTAL, LLC
PO BOX 672
PRINEVILLE, OR 97754
LICENSE # 180372

OFFICE	(541) 447-5643	TAX ID #	93 - 1298744	ESTIMATE
FAX	(541) 447-2190			DATE
	CUSTOMER	Patricia Curtin		SMAF JOB#
	ADDRESS			
	CITY			STATE/ZIP
	PHONE			FAX
	EMAIL	patricia.curtin@hotmail.com		
LOCATION OF SITE :		Medford Metals, 702 S Grape Street, Medford, OR		
JOB DETAIL :		Sample and inventory contents for disposal pricing		

QUANTITY	UNIT	DESCRIPTION	$ PER UNIT	TOTAL
		PERSONNEL		
8	HR	TECHNICIAN	$43.00	$344.00
4	HR	TECHNICIAN - OT	$57.00	$228.00
8	HR	PROJECT MGR	$78.00	$624.00
4	HR	PROJECT MGR - OT	$98.00	$392.00
2	PERS/DAY	PER DIEM	$45.00	$90.00
		VEHICLES AND EQUIPMENT		
1	DAY	CREW VEHICLE	$150.00	$150.00
		MONITORING EQUIPMENT		
1	DAY	4 GAS AIR MONITOR	$85.00	$85.00
15	TEST	HAZCAT TEST	$35.00	$525.00
		PPE		
2	EACH	TYCHEM SL	$24.00	$48.00
2	PAIR	NEOPRENE GLOVES	$6.00	$12.00
1	BOX	PVC/NITRILE GLOVES	$25.00	$25.00
2	PAIR	CHEMICAL BOOTS	$22.00	$44.00
2	EA/DAY	FULL-FACE RESPIRATOR	$22.00	$44.00
2	EACH	DEFENDER CARTRIDGES	$17.00	$34.00
		MISCELLANEOUS EQUIPMENT		
1	DAY	CAMERA	$25.00	$25.00
		LABORATORY TESTS		
12	EACH	RCRA 8 METALS	$200.00	$2,400.00
12	EACH	CYANIDES	$100.00	$1,200.00
12	EACH	pH	$30.00	$360.00
5	EACH	FLUORIDE	$40.00	$200.00
		PERMITS AND REPORTS		
		SUBTOTAL		**$6,830.00**
		INSURANCE SURCHARGE	2.00%	$136.60
		TOTAL		**$6,966.60**

SMAF ENVIRONMENTAL, LLC
PO BOX 672
PRINEVILLE, OR 97754
LICENSE # 180372

OFFICE	(541) 447-5643		TAX ID #	93 - 1298744	ESTIMATE
FAX	(541) 447-2190				DATE 9/28/2016
	CUSTOMER	General Property Group LLC			SMAF JOB# 16-0809
	ADDRESS	P.O. Box 8158			
	CITY	Medford			STATE/ZIP
	PHONE	(541) 292-0433			FAX
	EMAIL	patricia_curtin@hotmail.com			
LOCATION OF SITE:		Medford Metals, 702 S Grape Street, Medford, OR			
JOB DETAIL :		Compatibility Test			

QUANTITY	UNIT	DESCRIPTION	$ PER UNIT	TOTAL
		PERSONNEL		
8	HR	TECHNICIAN	$43.00	$344.00
1	HR	TECHNICIAN - OT	$57.00	$57.00
1	PERS/DAY	PER DIEM	$45.00	$45.00
		VEHICLES AND EQUIPMENT		
1	DAY	CREW VEHICLE	$150.00	$150.00
		PPE		
1	PAIR	NEOPRENE GLOVES	$6.00	$6.00
1	BOX	PVC/NITRILE GLOVES	$25.00	$25.00
		SUBTOTAL		**$627.00**
		INSURANCE SURCHARGE	2.00%	$12.54
		TOTAL		**$639.54**

-$4621.41
$51,776.13 vs. $35,273.07

SMAF ENVIRONMENTAL, LLC
PO BOX 672
PRINEVILLE, OR 97754
LICENSE # 180372

OFFICE	(541) 447-5643	TAX ID #	93 - 1298744	ESTIMATE DATE	11/7/2016
FAX	(541) 447-2190				
	CUSTOMER	General Property Group LLC		SMAF JOB#	16-0809
	ADDRESS	P.O. Box 8158			
	CITY	Medford		STATE/ZIP	OR, 97501
	PHONE	(541) 292-0433		FAX	
	EMAIL	patricia_curtin@hotmail.com			
LOCATION OF SITE :		Former Medford Plating, 702 S Grape Street, Medford			
JOB DETAIL :		Remove and dispose hazardous materials			

QUANTITY	UNIT	DESCRIPTION	$ PER UNIT	TOTAL
		PERSONNEL		
32	HR	TECHNICIAN	$43.00	$1,376.00
12	HR	TECHNICIAN - OT	$57.00	$684.00
16	HR	PROJECT MGR	$78.00	$1,248.00
6	HR	PROJECT MGR - OT	$98.00	$588.00
4	PERS/DAY	LEVEL C SURCHARGE	$75.00	$300.00
$200.00	ACTUAL	MOTEL	X 19%	$238.00
6	PERS/DAY	PER DIEM	$45.00	$270.00
		VEHICLES AND EQUIPMENT		
2	DAY	CREW VEHICLE	$150.00	$300.00
2	DAY	CREW VEHICLE & TRAILER	$200.00	$400.00
2	DAY	WATER TRAILER 500 GAL	$150.00	$300.00
		PPE		
4	EACH	SARANEX/ACID-CHEMICAL COVERALLS	$88.00	$352.00
4	PAIR	NEOPRENE GLOVES	$6.00	$24.00
1	BOX	PVC/NITRILE GLOVES	$25.00	$25.00
2	PAIR	CHEMICAL BOOTS	$22.00	$44.00
4	EA/DAY	FULL-FACE RESPIRATOR	$22.00	$88.00
2	EACH	DEFENDER CARTRIDGES	$22.00	$44.00
		MISCELLANEOUS EQUIPMENT		
2	DAY	CAMERA	$25.00	$50.00
2	SET/DAY	HAND TOOLS	$25.00	$50.00
		CONTRACTED EXPENSES		
$43,796.87	COST	PACKING, TRANSPORT, DISPOSAL - NRC	X 19%	$52,118.28
$600.00	COST	FORKLIFT	X 19%	$714.00
		SUBTOTAL		**$59,213.28**
		INSURANCE SURCHARGE	2.00%	$1,184.27
		TOTAL		**$60,397.54**

The prices listed above are an estimate based on the services that have been discussed and the actions that will be necessary to complete the services as discussed. In the event that additional services are required due to unforeseen circumstances final billing will be based on actual hours and quantities utilized.

Clean Harbors Environmental Services, Inc.
12402 SE Jennifer Street
Clackamas, OR 97015
www.cleanharbors.com

November 29, 2016

Attn: Ms. Patricia Curtin
General Property Group LLC
815 SW 4th st
Grants Pass, OR 97526

Quote #2551658, Medford Plating, Medford, OR

Dear Ms. Curtin:

Thank you for considering Clean Harbors Environmental Services, Inc. for your environmental service needs. We provide a broad range of environmental services including hazardous and non-hazardous waste transportation and disposal, laboratory chemical packing, emergency response, field services and industrial maintenance. We are pleased to provide this proposal based on the scope of work outlined below.

Notes & Assumptions

1.Quote is based on time and material
2.Quote is based on Monday through Friday service
3.Quote is based on vacuuming out Tanks 2,4 and tote 3and off loading into six totes.
4.Quote is based on Vacuuming out tank 3 and off loading into two totes
5.Quote is based on vacuuming tanks 5,6,7,8,9,11 and disposal of estimated 2,000 gallons
6.Disposal is based on approved profile
7.Disposal is based on non hazardous
8.Disposal is based on 2,000 gallons
9.Quote is based on staging vacuum truck within fifty feet of tanks
10.Quote does not include confined space entry
11.Quote is based on clear access to tanks and opening to each tank
12.If additional time and or equipment is required to complete the project a change order will generated and must be approved and authorized by both parties prior to moving forward.

We offer our clients a broad spectrum of environmental services and the ability to dispose of hazardous material at or through a Clean Harbors' owned and operated facility. In addition to managing your waste streams, a Clean Harbors' professional can assist you with:

- Waste Transportation & Disposal
- Laboratory Chemical Packing
- Field Services
- 24-Hour Environmental Emergency Response
- Industrial Services
- InSite Services

I look forward to servicing your environmental needs. When you are ready to place an order, please contact our Customer Service group at 800.444.4244. If you have any questions or need further assistance, you may reach me at the number below.

November 29, 2016
Clean Harbors Quote #2551658

Sincerely,

John J Large
Field Services Project Manager
Phone: 503.753.6785

November 29, 2016
Clean Harbors Quote #2551658

QUOTE SUMMARY

Description	Amount
TASK 1: VACUUM TRUCK SERVICE AND DISPOSAL	$4,227.00
TASK 2: MOBILIZATION	$4,282.00
TASK 3: DISPOSAL	$2,911.00
Subtotal	**$11,420.00**
Estimated Recovery Fee	**$1,084.90**
QUOTE TOTAL	**$12,504.90**

November 29, 2016
Clean Harbors Quote #2551658

TASK 1: VACUUM TRUCK SERVICE AND DISPOSAL

Amount	Description	QN UOM	Days	Price	Total
2	Field Technician	8 hour	1	$50.00	$800.00
2	Field Technician Overtime	4 hour	1	$75.00	$600.00
1	3000psi Hot Water Pressure Washer	1 day	n/a	$250.00	$250.00
2	Level C w/CPF1,2 or Polytyvec/Changeout	1 each	n/a	$62.00	$124.00
1	Pickup/Van/Car/Crew Cab	12 hour	1	$22.00	$264.00
1	Straight Vacuum Truck with Operator	8 hour	1	$130.00	$1,040.00
1	Straight Vacuum Truck with Operator Overtime	4 hour	1	$162.00	$648.00
1	Utility / Support Trailer	1 day	n/a	$201.00	$201.00
1	Tank Wash	1 each	n/a	$300.00	$300.00
				Total	$4,227.00

TASK 1: TOTAL ESTIMATE **$4,227.00**
Estimated Recovery Fee $401.57
Estimated total, including Fees **$4,628.57**

TASK 2: MOBILIZATION

TASK 2: TOTAL LABOR, EQUIPMENT, AND MATERIAL **$4,282.00**
Estimated Recovery Fee $406.79
Estimated total, including Fees **$4,688.79**

TASK 3: DISPOSAL

DISPOSAL

Profile / Waste Code	Waste Description	Price/UOM
CNOS	NON HAZARDOUS SEMI-SOLIDS	$300.00 / ton

Proprietary Information - Property of Clean Harbors Environmental Services

November 29, 2016
Clean Harbors Quote #2551658

The following minimum price(s) will apply:

Profile/Waste Code	UOM	Minimum Price
CNOS	container	$1,000.00

TRANSPORTATION

Transportation Hub	Vehicle Type	Unit Rate	Unit of Measure
WM-Hillsboro Landfill	Straight Wet Vac Truck	N/A	N/A

Transportation is covered by Labor, Equipment, and Material on another Task.

ACCESSORIALS

Per Diem / Subsistence	$211.00 per Day

WASTE CLASSIFICATIONS SPECIFICATIONS

Waste Code	Description
CNOS	**Non Hazardous Semi-Solids** Must be able to be landfilled No herbicides, pesticides, or cyanides Source of PCB < 50 ppm Flash point over 140°F PRIMARY DISPOSAL METHOD: NON HAZARDOUS LANDFILL ********** Non-hazardous Must be biodegradable No PCB pH – 2.1 to 12.4 PRIMARY DISPOSAL METHOD: NON HAZARDOUS LANDFARM

GENERAL CONDITIONS

- Except where superseded by an existing services agreement the following terms and conditions apply to this quoted business.
- The customer hereby acknowledges that the estimated cost is based upon a preliminary appraisal by a Clean Harbors Field Representative, and that the amount invoiced by Clean Harbors will be based upon labor and materials actually expended in performing the scope of work. Any changes in the scope will be billed on a time and materials basis.
- Clean Harbors guarantees to hold these prices firm for 60 days.
- Terms: Net 15 Days

People and Technology Creating a Safer, Cleaner Environment



November 29, 2016
Clean Harbors Quote #2551658

GENERAL CONDITIONS

- For work to begin we ask that you acknowledge the quotation with a signature and provide the appropriate purchase order number. Where modifications to the scope of services become necessary, Clean Harbors will notify the customer promptly and obtain customer authorization for such modifications and a revised contract price will be established in order to finish the project.
- This proposal is contingent on the customer providing full and complete access to the site. Customer represents and warrants to Clean Harbors that the customer has the legal right, title and interest necessary to provide access to the site. In addition, customer warrants that it has supplied Clean Harbors complete and accurate information regarding the site, subsurface conditions, utility locations, site ownership, hazardous materials or wastes and other substances or hazards likely to be present and any other reports, documentation or information concerning the scope of work.
- Interest will be charged at 1.5% per month or the maximum allowed by law for all past due amounts.
- Disposal will be managed within the Clean Harbors Network of Approved Facilities.
- Local, state and federal fees/taxes applying to the generating location/receiving facilities are not included in disposal pricing and will be added to each invoice as applicable.
- Materials subject to additional charges if they do not conform to the listed specifications.
- Electronically submitted profiles will be approved at no charge. Paper profiles will be charged at $75.00 each.
- Clean Harbors supports many invoice delivery options (E-mail, Electronic Invoicing, EDI, Etc.). Pricing is based on Clean Harbors' standard invoice delivery method of E-mail. If another delivery method is required there could be an additional service fee per invoice. Any alternate delivery methods must be reviewed and approved by Clean Harbors prior to acceptance and implementation.
- A variable Recovery Fee (that fluctuates with the DOE national average diesel price), currently at 9.5%, will be applied to the total invoice. For more information regarding our recovery fee calculation please go to: www.cleanharbors.com/recoveryfee.
- Pickups that require same day or next day service may be subject to additional charges.
- Pickups cancelled within 72 hours of scheduling will be subject to cancellation charges.
- Transportation charges to the final disposal facility will be charged in addition to local transportation to our truck to truck hub/local facility and will vary with logistics and routing.
- Time over eight (8) hours in the normal workday and all day Saturday is considered overtime and will be billed at 1.5 times the applicable straight time rate for all billable personnel unless otherwise quoted. Sunday and Holidays are considered premium time and will be billed at 2.0 times the applicable straight time rate for all billable personnel unless otherwise quoted.
- This proposal is submitted contingent upon the right to negotiate mutually acceptable contract terms and conditions, which are reflective of the work contemplated, and an equitable distribution of the risks involved therein. In the event that such agreement cannot be reached, Clean Harbors reserves the right to decline to enter into such an agreement without prejudice or penalty.

November 29, 2016
Clean Harbors Quote #2551658

GENERAL CONDITIONS

- In the event that legal or other action is required to collect unpaid invoice balances, Customer agrees to pay all costs of collection, including reasonable attorneys' fees, and agrees to the jurisdiction of the Commonwealth of Massachusetts.

ACKNOWLEDGEMENT

Your signature below indicates your acceptance of the pricing and terms detailed in the quote above.

Thank you for the opportunity to be of service.

K-Plat, manager — 12/14/16
Signature — PO#. — Date

General Property Group LLC
Print Name

Quote # 2551658

Clean Harbors Environmental Services, Inc.
16540 SE 130th Street
Clackamas, OR 97015
www.cleanharbors.com

November 21, 2016

Attn: Ms. Patricia Curtin
General Property Group LLC
815 SW 4th st
Grants Pass, OR 97526

Quote #2546678. Medford Plating, Medford, OR

Dear Ms. Curtin:

Thank you for considering Clean Harbors Environmental Services, Inc. (Clean Harbors) for your laboratory chemical waste management needs. We are pleased to provide you with the following pricing. Additionally, Clean Harbors has the appropriate permits and licenses for the acceptance and disposal of the waste streams identified within this quotation.

In addition to providing laboratory chemical management services and disposal to our company owned and operated facilities, Clean Harbors offers a broad range of environmental services including:

- Waste Transportation & Disposal
- Laboratory Chemical Packing
- Field Services
- 24-Hour Environmental Emergency Response
- Industrial Services
- InSite Services

I look forward to continuing to service your environmental needs. To place an order, please contact our Customer Service group at 800.444.4244. If you have any questions or need further assistance, you may reach me at the number below.

Sincerely,

David A Keene
Ts Project Manager
Phone: 971.284.3950

November 21, 2016
Clean Harbors Quote #2546678

LABPACK AND TOTES

DISPOSAL

Profile/Waste Code	Waste Description	Qty	UOM	Price	Total
B22A	CONCENTRATED ACIDS 21-49%	3	55 gallon drum	$200.00	$600.00
B29E	CYANIDE/SULFIDE SOLUTION FROM ELECTROPLATING	1	tote tank < 300g	$2,000.00	$2,000.00
CBP	SOLIDS TO HAZARDOUS LANDFILL	1	55 gallon drum	$80.00	$80.00
CBPS	SEMI-SOLIDS TO HAZARDOUS LANDFILL	2	55 gallon drum	$100.00	$200.00
CCRC	CORROSIVE INCINERABLES	1	tote tank < 300g	$1,500.00	$1,500.00
CCSS	SEMI-SOLIDS FOR STABILIZATION	12	tote tank < 300g	$600.00	$7,200.00
LCCR	LABPACK FOR INCINERATION	2	55 gallon drum	$275.00	$550.00
LCCR	LABPACK FOR INCINERATION	1	30 gallon drum	$206.00	$206.00
LCCR	LABPACK FOR INCINERATION	1	flex bin	$962.00	$962.00
				Total	**$13,298.00**

LABOR, SUPPLIES, AND EQUIPMENT

Amount	Description	Qty/UOM	Days	Price	Total
1	Chemist	8 hour	2	$60.00	$960.00
1	Chemist Overtime	2 hour	2	$90.00	$360.00
1	Lead Chemist	8 hour	2	$65.00	$1,040.00
1	Lead Chemist Overtime	2 hour	2	$97.50	$390.00
1	Box Truck	10 hour	2	$0.00	$0.00
2	Standard Clean Pack PPE	1 each	n/a	$7.50	$15.00
10	275G / 1100 L Poly TOTE, DOT Rated	1 each	n/a	$250.00	$2,500.00
1	30 Gal / 120 Litre Poly Drum 1H2/Y142/S	1 each	n/a	$87.00	$87.00
1	Flexbin, 1 Cubic Yard Flexbin 11G/Y/2022/1122	1 each	n/a	$159.00	$159.00
2	Lab pak box, 55gal UN 4G/Y147.3/S HD poly liner included	1 each	n/a	$31.00	$62.00
2	Per Diem / Subsistence	1 day	n/a	$150.00	$300.00
1	Vermiculite 4 cuft	1 bag	n/a	$40.00	$40.00
				Total	**$5,913.00**

CleanHarbors

November 21, 2016
Clean Harbors Quote #2546678

*Includes portal-to-portal travel time

TRANSPORTATION

Dispatch Location	Price/UOM	Total
Clackamas, OR Cleanpack	$1,500.00 pickup	$1,500.00

TOTAL ESTIMATE	**$20,711.00**
Estimated Recovery Fee	$1,967.55
Estimated Waste Fee	$89.62
Estimated total, including Fees	**$22,768.17**

WASTE CLASSIFICATIONS SPECIFICATIONS

Waste Code	Description
B22A	**Concentrated acids 21-49%** pH Less than 7 Less than 6 percent T.O.C. (Total Organic Carbon) Less than 1 inch solids in drum Less than 1 percent ammonia Less than 1 inch oil and grease Less than 10 ppm hex chrome Flashpoint greater than 140 degrees F No cyanides No sulfides No chelators No pesticides Neutralization Equivalent greater than 20 21-49% acid concentration PRIMARY DISPOSAL METHOD: Wastewater Treatment
B29E	**Cyanide/Sulfide Solution From Electroplating** Cyanide/sulfide less than 10,000 ppm pH must be greater than 7 No organic layer Less than 1 percent ammonia Less than 1 percent total metals Less than 1 inch of solids in drum Flashpoint greater than 140 F No pesticides PRIMARY DISPOSAL METHOD: WASTEWATER TREATMENT/INCINERATION

November 21, 2016
Clean Harbors Quote #2546678

WASTE CLASSIFICATIONS SPECIFICATIONS

Waste Code	Description
CBP	**Solids To Hazardous Landfill** Source of PCB < 50 ppm Must not be prohibited from landfill Must not require stabilization or encapsulation PRIMARY DISPOSAL METHOD: HAZARDOUS LANDFILL
CBPS	**Semi-Solids To Hazardous Landfill** Source of PCB < 50 ppm Must not be prohibited from landfill Must not require stabilization or encapsulation PRIMARY DISPOSAL METHOD: SOLIDIFICATION/SECURE CHEMICAL LANDFILL
CCRC	**Corrosive Incinerables** Can be solid and/or liquid No metal pieces inside drum No metal pieces inside drum PRIMARY DISPOSAL METHOD: DESTRUCTION Fluorine less than 0.5 percent No metal pieces inside drum PRIMARY DISPOSAL METHOD: DESTRUCTION INCINERATION
CCSS	**Semi-Solids For Stabilization** Characteristic (D002, D004-D011) codes only Free liquid is acceptable, but no free organic layer Organics must meet the Universal Treatment Standards No herbicides or pesticides TOC less than 20,000 ppm Less than 0.5% Ammonia Less than 50 ppm Fluoride Less than 30 ppm amenable cyanide No reactive cyanide allowed Less than 5% Total metals Flashpoint greater than 140 F PRIMARY DISPOSAL METHOD: STABILIZATION OR CHEMICAL OXIDATION

GENERAL CONDITIONS

- Except where superseded by an existing services agreement the following terms and conditions apply to this quoted business.
- Prices firm for 30 days.
- Terms: Net 15 Days

November 21, 2016
Clean Harbors Quote #2546678

GENERAL CONDITIONS

- Interest will be charged at 1.5% per month or the maximum allowed by law for all past due amounts.
- Local, state and federal fees/taxes applying to the generating location/receiving facilities are not included in disposal pricing and will be added to each invoice as applicable.
- Materials subject to additional charges if they do not conform to the listed specifications.
- Electronically submitted profiles will be approved at no charge. Paper profiles will be charged at $75.00 each.
- Clean Harbors supports many invoice delivery options (E-mail, Electronic Invoicing, EDI, Etc.). Pricing is based on Clean Harbors' standard invoice delivery method of E-mail. If another delivery method is required there could be an additional service fee per invoice. Any alternate delivery methods must be reviewed and approved by Clean Harbors prior to acceptance and implementation.
- Compressed gas cylinders requiring special handling due to inoperable valves will be assessed an additional charge of $400.00 per cylinder. Cylinders larger than medium size will be quoted case by case. This charge may be sent as supplemental invoice.
- A variable Recovery Fee (that fluctuates with the DOE national average diesel price), currently at 9.5%, will be applied to the total invoice. For more information regarding our recovery fee calculation please go to: www.cleanharbors.com/recoveryfee.
- Pickups that require same day or next day service may be subject to additional charges.
- Pickups cancelled within 72 hours of scheduling will be subject to cancellation charges.
- Transportation charges to the final disposal facility will be charged in addition to local transportation to our truck to truck hub/local facility and will vary with logistics and routing.
- Time over eight (8) hours in the normal workday and all day Saturday is considered overtime and will be billed at 1.5 times the applicable straight time rate for all billable personnel unless otherwise quoted. Sunday and Holidays are considered premium time and will be billed at 2.0 times the applicable straight time rate for all billable personnel unless otherwise quoted.
- Standard disposal conversions (excluding minimums) apply to containers other than 5 gallon drums unless otherwise quoted: 6-20g 60%, 21-30g 75%, 31-55g 100%, 56-85g 145%, FBIN 350%, TOT2(<300gal TOTE) 500%, TOTE 630%.
- Final invoicing will be based upon the unit rates for those items used in performance of the services and materials shipped for disposal. In the event the unit price of an item required for proper performance of service is not listed in this quotation, the item will be invoiced at list pricing.
- In the event that legal or other action is required to collect unpaid invoice balances, Customer agrees to pay all costs of collection, including reasonable attorneys' fees, and agrees to the jurisdiction of the Commonwealth of Massachusetts.

November 21, 2016
Clean Harbors Quote #2546678

ACKNOWLEDGEMENT

Your signature below indicates your acceptance of the pricing and terms detailed in the quote above.

Thank you for the opportunity to be of service.

K-9 Acct. manager 12/14/16
Signature PO# Date

General Property Group LLC
Print Name

Quote # 2546678

Cleanharbors

INVOICE

Invoice No 1001762802

REMIT TO:
Clean Harbors Env. Services
PO Box 3442
Boston, MA 02241-3442

EIN: 04-2698999

OFFICE:
Clean Harbors Environmental Service, Inc.
16540 SE 130th Avenue
Clackamas, OR 97015
(503) 742-7109

If you have any questions regarding this invoice, please contact your customer service representative at the telephone number listed above

SOLD TO:
Patricia Curtin
General Property Group LLC
PO Box 8158
Medford, OR 97501 - 0000

JOB SITE/GENERATOR:
Medford Plating
702 S Grape st
Medford, OR 97501 - 0000

Job Description: labpack and totes **** Payable in USD funds ****

15 Feb 2017	1001762802	GE28782	6I	1700123396	No PO Needed	NET 15 DAYS

15 Feb 2017	1700123396-001	GENERAL	labpack and totes	$12,405.28
15 Feb 2017	1700123396-002	GENERAL	Packaging & Disposal	$8,925.17
16 Feb 2017	1700123396-003	GENERAL	disposal	$604.70

	SUBTOTAL	**$21,935.15**
	TAX	**$0.00**
PLEASE PAY THIS AMOUNT →	**INVOICE TOTAL**	**$21,935.15**
REMIT PAYMENT BY →	**DUE DATE**	**30 Mar 2017**

Interest will be charged at a rate of 1.5% per month for all past due amounts.

Invoice Date: 15 Mar 2017

PLEASE RETURN A COPY OF ICE WITH PAYMENT - THANK YOU

420

Clean Harbors

INVOICE

Invoice No 1001762802

TASK 1700123396-001 - labpack and totes

11 Jan 2017

009996389FLE 1	DISPSL / LCCRD	Labpack Flammables For Incineration LCCRD	1 55CF	1.000	55CF	275.0000	$275.00
	FEE-DISP	Utah Hazardous Waste for Disposal		0.045	T	35.0000	$1.56
009996389FLE 2	DISPSL / LCCRO	Labpack Oxidizers For Incineration LCCRO	1 05DF	1.000	05DF	85.0000	$85.00
	FEE-DISP	Utah Hazardous Waste for Disposal		0.003	T	35.0000	$0.09
009996389FLE 3	DISPSL / LCCRA	Labpack Acid & Acid Compatibles For Incineration LCCRA	1 55DF	1.000	55DF	275.0000	$275.00
	FEE-DISP	Utah Hazardous Waste for Disposal		0.079	T	35.0000	$2.77
009996389FLE 4	DISPSL / LCCRB	Labpack Basic & Basic Compatibles For Incineration LCCRB	1 55DF	1.000	55DF	275.0000	$275.00
	FEE-DISP	Utah Hazardous Waste for Disposal		0.035	T	35.0000	$1.21
009996389FLE 5	DISPSL / LCCRC	Labpack Organics For Incineration LCCRC	1 30CF	1.000	30CF	206.0000	$206.00
	FEE-DISP	Utah Non-Hazardous Waste for Disposal		0.018	T	2.5000	$0.04
009996389FLE 6	DISPSL / LCCRN	Labpack Non-Hazardous For Incineration LCCRN	3 55CF	3.000	55CF	275.0000	$825.00
	FEE-DISP	Utah Non-Hazardous Waste for Disposal		0.229	T	2.5000	$0.57
009996389FLE	TRAN	TRANSPORTATION		1.000	EA	1,500.0000	$1,500.00
	CLNPAKPPE	Standard Clean Pack PPE		2.000	EA	7.5000	$15.00
	SCE	Lead Chemist		8.000	HR	65.0000	$520.00
	CH	Chemist		8.000	HR	60.0000	$480.00
	SCEOT	Lead Chemist Overtime		2.000	HR	97.5000	$195.00
	CHOT	Chemist Overtime		2.000	HR	90.0000	$180.00
	DM55COPAK	Lab pak box, 55gal UN 4G/Y147.3/S HD poly liner included		4.000	EA	31.0000	$124.00
	DM30COPAK	Lab pak box, 30GAL, un 4g/y113/s HD poly liner included		1.000	EA	21.0000	$21.00
	DM55POLY	55 Gal / 205 Litre Open Head Poly, Reconditioned Drum 1H2/Y2		2.000	EA	98.0000	$196.00
	DM5POLY	5 Gal / 20 Litre Poly Drum 1H2/Y1.5/60		1.000	EA	23.0000	$23.00
	SORBVERM	Vermiculite 4 cuft		4.000	BAG	40.0000	$160.00
	PERDIEM3	Per Diem / Subsistence		1.000	DAY	150.0000	$150.00
	PERDIEM3	Per Diem / Subsistence		1.000	DAY	150.0000	$150.00

14 Feb 2017

TKBOX10	Box Truck		4.500	HR	0.0000	$0.00
SCE	Lead Chemist		4.500	HR	65.0000	$292.50
CH	Chemist		4.500	HR	60.0000	$270.00
PERDIEM3	Per Diem / Subsistence		1.000	DAY	150.0000	$150.00
PERDIEM3	Per Diem / Subsistence		1.000	DAY	150.0000	$150.00

15 Feb 2017

CleanHarbors

INVOICE
Invoice No 1001762802

TASK 1700123396-001 - labpack and totes

Manifest Info	Item ID	Description	Manifest Qty	Manifest UOM	Billing Qty	Billing UOM	Unit Price	Amount
010466155FLE 1	DISPSL / B22A	CONCENTRATED HYDROCHLORIC ACID 11-32% - UNUSED CH1359408	1	16DF	1.000	16DF	140.0000	$140.00
010466155FLE 1	DISPSL / B22A	CONCENTRATED HYDROCHLORIC ACID 11-32% - UNUSED CH1359408	2	55DF	2.000	55DF	200.0000	$400.00
010466155FLE 2	DISPSL / B22A	CONCENTRATED HYDROCHLORIC ACID 11-32% - UNUSED CH1359408	1	85DM	1.000	85DM	290.0000	$290.00
	TRANSDOWN	010466155FLE/2 Trans to ultimate disposal facility			1.000	EA	52.6600	$52.66
	TRANSDOWN	010466155FLE/1 Trans to ultimate disposal facility			3.000	EA	52.6600	$157.98
010466154FLE 1	DISPSL / CBPS	Nickel Sulfate Solution CH1359410	4	55DF	4.000	55DF	100.0000	$400.00
	FEE-DOWN	Utah Non-Hazardous Waste for Disposal			0.609	T	2.5000	$1.52
	TRANSDOWN	010466154FLE/1 Trans to ultimate disposal facility			4.000	EA	7.5950	$30.38
	TKBOX10	Box Truck			13.500	HR	0.0000	$0.00
	CLNPAKPPE	Standard Clean Pack PPE			2.000	EA	7.5000	$15.00
	SCE	Lead Chemist			8.000	HR	65.0000	$520.00
	CH	Chemist			8.000	HR	60.0000	$480.00
	SCEOT	Lead Chemist Overtime			5.500	HR	97.5000	$536.25
	CHOT	Chemist Overtime			5.500	HR	90.0000	$495.00
	DM55POLY	55 Gal / 205 Litre Open Head Poly, Reconditioned Drum 1H2/Y2			3.000	EA	98.0000	$294.00
	DM55CPOLYR	55 Gal / 205 Litre Closed Poly Drum 1H1/Y1.8/150, Recycled			1.000	EA	101.0000	$101.00
	DM85STL	85 G / 320 L Steel Drum, Reconded 1A2/X400/S (Overpack)			3.000	EA	182.0000	$546.00
	DM30POLY	30 Gal / 120 Litre Poly Drum 1H2/Y142/S			2.000	EA	87.0000	$174.00
	SORBVERM	Vermiculite 4 cuft			3.000	BAG	40.0000	$120.00
	FEE	Recovery Fee			11,277.530	EA	0.1000	$1,127.75
							SUBTOTAL	**$12,405.28**
							TAX	**$0.00**
							TASK TOTAL	**$12,405.28**

TASK 1700123396-002 - Packaging & Disposal

Manifest Info	Item ID	Description	Manifest Qty	Manifest UOM	Billing Qty	Billing UOM	Unit Price	Amount
		15 Feb 2017						
010466152FLE 1	DISPSL / CFL1	STRAIGHT FLUORESCENT TUBES FOR RECLAIM CH1368746	2	8FTB	1.000	MIN	85.0000	$85.00
	TRANSDOWN	010466152FLE/1 Trans to ultimate disposal facility			2.000	EA	22.8300	$45.66
010466151FLE 1	DISPSL / CAXC	chromic acid and Potassium Bichromate Mixture CH1368757	1	30DF	1.000	MIN	855.0000	$855.00
	FEE-DOWN	Colorado Hazardous Waste Disposal Fee			0.032	T	9.9200	$0.32

CleanHarbors

INVOICE

Invoice No 1001762802

TASK 1700123396-002 - Packaging & Disposal

	FEE-DOWN	Adams County Waste Fee			855.000	%	0.0300	$25.65
	TRANSDOWN	010466151FLE/1 Trans to ultimate disposal facility			1.000	EA	6.1700	$6.17
010466150FLE 1	DISPSL / CCS	Cadmium Oxide CH1372557	1	30DF	1.000	30DF	120.0000	$120.00
	FEE-DISP	Utah Hazardous Waste for Treatment			0.054	T	17.5000	$0.94
010466150FLE 2	DISPSL / CCSF	Tote 1 and 2 CH1359424	2	TOTE	2.000	TOTE	693.0000	$1,386.00
	FEE-DISP	Utah Hazardous Waste for Treatment			3.312	T	17.5000	$57.96
010466150FLE 3	DISPSL / CCSF	Tote 4 and 5 CH1359427	2	TOTE	2.000	TOTE	693.0000	$1,386.00
	FEE-DISP	Utah Hazardous Waste for Treatment			3.274	T	17.5000	$57.30
010466150FLE 4	DISPSL / CCSF	Tank 2 CH1343158	5	TOTE	1.000	TOTE	693.0000	$693.00
010466150FLE 4	DISPSL / CCSF	Tank 2 CH1343158	5	TOTE	4.000	TOT2	550.0000	$2,200.00
	FEE-DISP	Utah Hazardous Waste for Treatment			5.726	T	17.5000	$100.21
010466150FLE 5	DISPSL / CBP	NaOH Solid CH1359509	1	85DM	1.000	85DM	174.0000	$174.00
	FEE-DISP	Utah Non-Hazardous Waste for Disposal			0.183	T	2.5000	$0.46
010466150FLE 6	DISPSL / CCSF	Tank 3 CH1359421	1	TOTE	1.000	TOT2	550.0000	$550.00
	FEE-DISP	Utah Hazardous Waste for Treatment			0.665	T	17.5000	$11.64
010466150FLE 7	DISPSL / CNO	Buffing Compound CH1372421	1	85DM	1.000	85DM	137.7500	$137.75
	FEE-DISP	Utah Non-Hazardous Waste for Disposal			0.088	T	2.5000	$0.22
010466150FLE 8	DISPSL / CNO	Buffing Compound CH1372421	2	55DF	2.000	55DF	95.0000	$190.00
	FEE-DISP	Utah Non-Hazardous Waste for Disposal			0.179	T	2.5000	$0.45
	TRANSDOWN	010466150FLE/7 Trans to ultimate disposal facility			1.000	EA	5.7800	$5.78
	TRANSDOWN	010466150FLE/1 Trans to ultimate disposal facility			1.000	EA	5.7800	$5.78
	TRANSDOWN	010466150FLE/5 Trans to ultimate disposal facility			1.000	EA	5.7800	$5.78
	TRANSDOWN	010466150FLE/6 Trans to ultimate disposal facility			1.000	EA	0.1156	$0.12
	TRANSDOWN	010466150FLE/8 Trans to ultimate disposal facility			2.000	EA	5.7800	$11.56
	TRANSDOWN	010466150FLE/2 Trans to ultimate disposal facility			2.000	EA	0.1156	$0.23
	TRANSDOWN	010466150FLE/3 Trans to ultimate disposal facility			2.000	EA	0.1156	$0.23
	TRANSDOWN	010466150FLE/4 Trans to ultimate disposal facility			5.000	EA	0.1156	$0.58
	FEE	Recovery Fee			8,113.790	EA	0.1000	$811.38
							SUBTOTAL	**$8,925.17**
							TAX	**$0.00**

Clean Harbors®

INVOICE
Invoice No 1001762802

							TASK TOTAL	$8,925.17

TASK 1700123396-003 - disposal

Material Info	Service	Description	Quantity	Quantity UOM	Billing Qty	Billing UOM	Unit Price	Amount
		15 Feb 2017						
010466158FLE 1	DISPSL / D23	EMPTY DRUMS CH1383354	2	55DF	2.000	55DF	41.0000	$82.00
010466158FLE 2	DISPSL / D23	EMPTY DRUMS CH1383354	6	55DM	6.000	55DM	41.0000	$246.00
010466157FLE 1	DISPSL / CCSM	electroplating bath filters CH1374705	1	55DF	1.000	55DF	215.0000	$215.00
	FEE-DISP	Utah Hazardous Waste for Treatment			0.055	T	17.5000	$0.95
	TRANSDOWN	010466157FLE/1 Trans to ultimate disposal facility			1.000	EA	5.7800	$5.78
	PERDIEM3	Per Diem / Subsistence			1.000	DAY	0.0000	$0.00
	FEE	Recovery Fee			549.730	EA	0.1000	$54.97
							SUBTOTAL	$604.70
							TAX	$0.00
							TASK TOTAL	$604.70

CleanHarbors

INVOICE
Invoice No 1001724468

REMIT TO:
Clean Harbors Env. Services
PO Box 3442
Boston, MA 02241-3442

EIN: 04-2698999

OFFICE:
Clean Harbors Environmental Service, Inc.
12402 SE Jennifer Street
Clackamas, OR 97015
(503) 785-0404

If you have any questions regarding this invoice, please contact your customer service representative at the telephone number listed above

SOLD TO:
Patricia Curtin
General Property Group LLC
PO Box 8158
Medford, OR 97501 - 0000

JOB SITE/GENERATOR:
Medford Plating
702 S Grape st
Medford, OR 97501

Job Description: Vacuum Truck Service and Disposal

**** Payable in USD funds ****

Last Service Date	Invoice No	Customer	Branch	Sales Order	Purchase Order	Terms
09 Feb 2017	1001724468	GE28782	FW	1700494230	No PO Needed	NET 15 DAYS

Last Service Date	Task	Task Type	Description	Total
09 Feb 2017	1700494230-001	GENERAL	Vacuum Truck Service and Disposal	$4,244.90
13 Feb 2017	1700494230-002	GENERAL	Mobilization	$4,710.20
08 Feb 2017	1700494230-003	DISPOSAL	Disposal	$1,775.40

	SUBTOTAL	**$10,730.50**
	TAX	**$0.00**
PLEASE PAY THIS AMOUNT →	**INVOICE TOTAL**	**$10,730.50**
REMIT PAYMENT BY →	**DUE DATE**	**01 Mar 2017**

Interest will be charged at a rate of 1.5% per month for all past due amounts.

Invoice Date: 14 Feb 2017

PLEASE RETURN A COPY OF INVOICE WITH PAYMENT - THANK YOU

Clean Harbors

INVOICE
Invoice No 1001724468

TASK 1700494230-001 - Vacuum Truck Service and Disposal

Manifest Info	Item ID	Description	Manifest Qty	Manifest UOM	Billing Qty	Billing UOM	Unit Price	Amount
		08 Feb 2017						
	TKPU	Pickup/Van/Car/Crew Cab			11.500	HR	22.0000	$253.00
	VACSJ&OP	Straight Vacuum Truck with Operator			8.000	HR	130.0000	$1,040.00
	VACSJ&OPOT	Straight Vacuum Truck with Operator Overtime			3.500	HR	162.0000	$567.00
	WASHER30H	3000psi Hot Water Pressure Washer			1.000	DAY	250.0000	$250.00
	PPEC2	Level C w/CPF1,2 or Polytyvec/Changeout			2.000	EA	62.0000	$124.00
	FT	Field Technician			8.000	HR	50.0000	$400.00
	FTOT	Field Technician Overtime			3.500	HR	75.0000	$262.50
	FT	Field Technician			8.000	HR	50.0000	$400.00
	FTOT	Field Technician Overtime			3.500	HR	75.0000	$262.50
		09 Feb 2017						
	TANKCLEAN	TANK CLEANOUT SERVICES, JOB RELATED			1.000	EA	300.0000	$300.00
	FEE	Recovery Fee			3,859.000	EA	0.1000	$385.90
							SUBTOTAL	**$4,244.90**
							TAX	**$0.00**
							TASK TOTAL	**$4,244.90**

TASK 1700494230-002 - Mobilization

Item ID	Description	Fixed Price Amount	Percent Complete	Billable Amount
	13 Feb 2017			
FIXD	Mobilization	4,282.0000	100%	$4,282.00
FEE	Recovery Fee	0.1000		$428.20
			SUBTOTAL	**$4,710.20**
			TAX	**$0.00**
			TASK TOTAL	**$4,710.20**

TASK 1700494230-003 - Disposal

Manifest Info	Item ID	Description	Manifest Qty	Manifest UOM	Billing Qty	Billing UOM	Unit Price	Amount
		08 Feb 2017						
W170792997 1	DISPSL / CNOS	Tanks 5,6,7,8,9, and 11 non-haz waste waters 123404OR	6	TON	5.380	TON	300.0000	$1,614.00
	FEE	Recovery Fee			1,614.000	EA	0.1000	$161.40
							SUBTOTAL	**$1,775.40**
							TAX	**$0.00**
							TASK TOTAL	**$1,775.40**

DocuSign Envelope ID: B59681D4-3B46-40DA-998F-5319D95D005A

Sale Agreement # PC93015

SELLER'S COUNTER OFFER No. @ _____

This is a counter offer to [X] Sale Agreement or [ ] Buyer's Counter Offer
Seller: Steven Mcghehey
Buyer: General Property Group LLC
The real property described as: 702 S. Grape St. Medford, OR 97501

AGREEMENT TO SELL:
Seller agrees to sell the real and personal property upon the terms and conditions set forth in the Sale Agreement and subsequent counter offers where applicable, except as modified as follows: Buyer and seller agree that sales price will be $145,000.00. All other terms to remain the same.

_____ For additional provisions, see Addendum _____

All remaining terms and conditions of the Sale Agreement (and other counter offer(s), where applicable), not otherwise modified, are approved and accepted by Seller. Time is of the essence. This Seller's Counter Offer shall automatically expire on October 9, 2015 at 5 [ ] a.m. [X] p.m. ("the Counter Offer Deadline"), if not accepted within that time. If Buyer accepts this Seller's Counter Offer after the Counter Offer Deadline, it shall not be binding upon Seller unless agreed to by Seller in writing within _____ business days (two [2] if not filled in) thereafter by so indicating at the Seller's Acknowledgement Section below. This Seller's Counter Offer may be accepted by Buyer only in writing. However, Seller may withdraw this counter offer any time prior to Buyer's written acceptance.

Seller acknowledges receipt of a completely filled in copy of Buyer's Offer and Seller's Counter Offer, and all subsequent counter offers where applicable, which Seller has fully read and understands. Seller acknowledges that Seller has not relied on any oral or written statements of any Buyer or of any Licensee(s) which are not expressly contained in the Sale Agreement as amended. Seller instructs that all earnest money distributable to Seller pursuant to the Sale Agreement shall be disbursed as follows after deduction of any title insurance and Escrow cancellation charges: *(check one)* [ ] First to Listing Firm, to the extent of the agreed commission just as if the transaction had been consummated, with residue to Seller; or [ ] _____

Seller Signature DocuSigned by: Steven Mcghehey 012BD91E32E144A... Date 10/8/2015 _____ a.m. _____ p.m. ←
Seller Signature _____ Date _____ a.m. _____ p.m. ←

BUYER'S RESPONSE (*select only one*):
[X] Buyer accepts Seller's Counter Offer.
[ ] Buyer does not accept Seller's Counter Offer AND submits the attached Buyer's Counter Offer.
[ ] Buyer rejects Seller's Counter Offer.

Buyer acknowledges receipt of signed copies of the Sale Agreement and all subsequent counter offers including this Seller's Counter Offer, where applicable, which Buyer has fully read and understands.

Buyer Signature K-Net manager General Property Group LLC Date 10/9/15 _____ a.m. 4:00 p.m. ←
Buyer Signature _____ Date _____ a.m. _____ p.m. ←

SELLER'S ACKNOWLEDGMENT:
Seller acknowledges receipt of copies of the Sale Agreement and all subsequent counter offers, including this Seller's Counter Offer, which Seller has fully read and understands. If Buyer's response to Seller's Counter Offer is an acceptance that has occurred after the Counter Offer Deadline identified in the Agreement to Sell Section above, Seller *(select only one)* [ ] agrees [ ] does not agree, to be bound thereby. (The failure to check either box shall constitute a rejection by Seller of Buyer's late acceptance of Seller's Counter Offer after said Deadline.) If Seller checks the box agreeing to be bound by Buyer's late acceptance occurring after the Counter Offer Deadline, the Sale Agreement shall become binding on all parties only when Seller(s) has/have signed below and this Counter Offer is transmitted to Buyer or Buyer's Licensee.

Seller Signature Steven Mcghehey Date _____ a.m. _____ p.m. ←
Seller Signature _____ Date _____ a.m. _____ p.m. ←

Enter Date, Time, and Method of Transmission of Seller's Acceptance: _____ ;

By _____

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OREF 003

DocuSign Envelope ID: B59681D4-3B46-40DA-998F-5319D95D005A

Sale Agreement # PC93015

47 **RECEIPT OF EARNEST MONEY**
48 *(Use only if amount of earnest money is modified).*
49 Selling Firm acknowledges receipt of earnest money from Buyer **NOT** previously receipted for in the sum of $ _____ evidenced ☐ by cash,
50 ☐ check, ☐ promissory note payable on or before _____, which Selling Firm agrees to handle as provided in the Agreement.
51 Selling Licensee's signature _____

52 Selling Licensee Patricia Curtin Listing Licensee Jake Rockwell

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OREF 003

DocuSign Envelope ID: B59681D4-3B46-40DA-998F-5319D95D005A

Sale Agreement # PC93015

BUYER'S COUNTER OFFER No. 1

This is a counter offer to Seller's Counter Offer.
Buyer: General Property Group LLC
Seller: Steven Mcghehey
The real property described as: 702 S Grape St, Medford, OR 97501

AGREEMENT TO PURCHASE:
Buyer agrees to purchase the real and personal property upon the terms and conditions set forth in the Sale Agreement and subsequent counter offers where applicable except as modified as follows: Sale Price to be $140,000.00.

For additional provisions, see Addendum ____
All remaining terms and conditions of the Sale Agreement (and other counter offer(s), where applicable), not otherwise modified, are approved and accepted by Buyer. Time is of the essence. This Buyer's Counter Offer shall automatically expire on October 8, 2015 at 5:00 ☐ a.m. ☒ p.m. ("the Counter Offer Deadline"), if not accepted within that time. If Seller accepts Buyer's Counter Offer after the Counter Offer Deadline, it shall not be binding upon Buyer unless agreed to by Buyer in writing within ____ business days (two [2] if not filled in) thereafter by so indicating at the Buyer's Acknowledgement Section below. This Buyer's Counter Offer may be accepted by Seller only in writing. However, Buyer may withdraw this Buyer's Counter Offer any time prior to Seller's written acceptance.

Buyer Signature K. Patt, manager General Property Group LLC Date 10/7/15, 10:30 a.m. ☐ p.m. ←
Buyer Signature ____ Date ____, ____ a.m. ☐ p.m. ←

SELLER'S RESPONSE *(select only one)*:
☐ Seller accepts Buyer's Counter Offer;
☒ Seller does not accept Buyer's Counter Offer AND submits the attached Seller's Counter Offer
☐ Seller rejects Buyer's Counter Offer.

Seller acknowledges receipt of signed copies of the Sale Agreement and all subsequent counter offers, including this Buyer's Counter Offer, which Seller has read and fully understands. Seller instructs that all earnest money distributable to Seller pursuant to the Sale Agreement shall be disbursed as follows after deduction of any title insurance and Escrow cancellation charges: *(check one)* ☐ First to Listing Firm, to the extent of the agreed commission just as if the transaction had been consummated, with residue to Seller; or ☐ ____.

Seller Signature Steve Mcghehey Steven Mcghehey 012BD31E32E144A... Date 10/8/2015, ____ a.m. ☐ p.m. ←
Seller Signature ____ Date ____, ____ a.m. ☐ p.m. ←

BUYER'S ACKNOWLEDGMENT:
Buyer acknowledges that Buyer has not relied on any oral or written statements of Seller or of any Licensee(s) which are not expressly contained in the Sale Agreement as amended. Buyer acknowledges receipt of copies of the Sale Agreement and all subsequent counter offers, including this Buyer's Counter Offer, which Buyer has fully read and understands. If Seller's response to Buyer's Counter Offer is an acceptance of Buyer's counter offer that has occurred after the Counter Offer Deadline identified in the Agreement to Purchase Section above, Buyer *(select only one)* ☐ agrees ☐ does not agree, to be bound thereby. **(The failure to check either box shall constitute a rejection by Buyer of Seller's late acceptance of Buyer's Counter Offer after said Deadline.) If Buyer checks the box agreeing to be bound by Seller's late acceptance occurring after the Counter Offer Deadline, the Sale Agreement shall become binding on all parties only when Buyer(s) has/have signed below and this Counter Offer is transmitted to Seller or Seller's Licensee.**

Buyer Signature K. Patt, manager General Property Group LLC Date 10/9/15, ____ a.m. 4:00 p.m. ←
Buyer Signature ____ Date ____, ____ a.m. ☐ p.m. ←

Enter Date, Time, and Method of Transmission of Buyer's Acceptance: ____
By: ____

RECEIPT OF EARNEST MONEY
(Use only if amount of earnest money is modified.)
Selling Firm acknowledges receipt of earnest money from Buyer **NOT** previously receipted for in the sum of $ ____ evidenced by ☐ cash, ☐ check, ☐ promissory note payable on or before ____, which Selling Firm agrees to handle as provided in the Sale Agreement.

Selling Licensee's signature ____

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Sale Agreement # PC93015

49 Selling Licensee Patricia A. Curtin Listing Licensee Jake Rockwell/Cord Allison

50 Selling Firm Broker's Initials/Date _____/_____ Listing Firm Broker's Initials/Date _____/_____

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Sale Agreement # PC93015

SELLER'S COUNTER OFFER No. 1

This is a counter offer to ☒ Sale Agreement or ☐ Buyer's Counter Offer
Seller: Steven Mcghehey
Buyer: General Property Group LLC
The real property described as: 702 S. Grape St, Medford, OR 97501

AGREEMENT TO SELL:

Seller agrees to sell the real and personal property upon the terms and conditions set forth in the Sale Agreement and subsequent counter offers where applicable, except as modified as follows: Buyer and seller agree that sales price to be $160,000.00. Seller is aware of the following issues: Line 238: There are hazardous substances. Line 239: There are structural defects. Seller to have 5 business days to obtain First Lien Holders' approval for payoff of recorded First Trust Deed. For additional provisions, see Addendum A

All remaining terms and conditions of the Sale Agreement (and other counter offer(s), where applicable), not otherwise modified, are approved and accepted by Seller. Time is of the essence. This Seller's Counter Offer shall automatically expire on October 3, 2015 at 5 ☐ a.m. ☒ p.m. ("the Counter Offer Deadline"), if not accepted within that time. If Buyer accepts this Seller's Counter Offer after the Counter Offer Deadline, it shall not be binding upon Seller unless agreed to by Seller in writing within _____ business days (two [2] if not filled in) thereafter by so indicating at the Seller's Acknowledgement Section below. This Seller's Counter Offer may be accepted by Buyer only in writing. However, Seller may withdraw this counter offer any time prior to Buyer's written acceptance.

Seller acknowledges receipt of a completely filled in copy of Buyer's Offer and Seller's Counter Offer, and all subsequent counter offers where applicable, which Seller has fully read and understands. Seller acknowledges that Seller has not relied on any oral or written statements of any Buyer or of any Licensee(s) which are not expressly contained in the Sale Agreement as amended. Seller instructs that all earnest money distributable to Seller pursuant to the Sale Agreement shall be disbursed as follows after deduction of any title insurance and Escrow cancellation charges: *(check one)* ☐ First to Listing Firm, to the extent of the agreed commission just as if the transaction had been consummated, with residue to Seller; or ☐ _____

Seller Signature DocuSigned by: Steven Mcghehey Steven Mcghehey Date 10/2/2015 _____ a.m. _____ p.m.←

Seller Signature _____ Date _____ _____ a.m. _____ p.m.←

BUYER'S RESPONSE ***(select only one)***:

☐ Buyer accepts Seller's Counter Offer.
☒ Buyer does not accept Seller's Counter Offer AND submits the attached Buyer's Counter Offer.
☐ Buyer rejects Seller's Counter Offer.

Buyer acknowledges receipt of signed copies of the Sale Agreement and all subsequent counter offers including this Seller's Counter Offer, where applicable, which Buyer has fully read and understands.

Buyer Signature K. Gill manager General Property Group LLC Date 10/7/15 10:58 a.m. _____ p.m.←

Buyer Signature _____ Date _____ _____ a.m. _____ p.m.←

SELLER'S ACKNOWLEDGMENT:

Seller acknowledges receipt of copies of the Sale Agreement and all subsequent counter offers, including this Seller's Counter Offer, which Seller has fully read and understands. If Buyer's response to Seller's Counter Offer is an acceptance that has occurred after the Counter Offer Deadline identified in the Agreement to Sell Section above, Seller *(select only one)* ☐ agrees ☐ does not agree, to be bound thereby. **(The failure to check either box shall constitute a rejection by Seller of Buyer's late acceptance of Seller's Counter Offer after said Deadline.) If Seller checks the box agreeing to be bound by Buyer's late acceptance occurring after the Counter Offer Deadline, the Sale Agreement shall become binding on all parties only when Seller(s) has/have signed below and this Counter Offer is transmitted to Buyer or Buyer's Licensee.**

Seller Signature DocuSigned by: Steve Mcghehey Steven Mcghehey Date 10/8/2015 _____ a.m. _____ p.m.←

Seller Signature _____ Date _____ _____ a.m. _____ p.m.←

Enter Date, Time, and Method of Transmission of Seller's Acceptance: _____

By _____

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Sale Agreement # PC93015

47 **RECEIPT OF EARNEST MONEY**
48 *(Use only if amount of earnest money is modified).*
49 Selling Firm acknowledges receipt of earnest money from Buyer NOT previously receipted for in the sum of $ _____ evidenced ☐ by cash,
50 ☐ check, ☐ promissory note payable on or before _____, which Selling Firm agrees to handle as provided in the Agreement.
51 Selling Licensee's signature _____

52 Selling Licensee Patricia Curtin Listing Licensee Jake Rockwell

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ADDENDUM TO REAL ESTATE SALE AGREEMENT

This is an Addendum to: ☒ Real Estate Sale Agreement ☐ Seller's Counter Offer ☐ Buyer's Counter Offer
Re: Real Estate Sale Agreement No. PC93015 Dated October 2, 2015 Addendum No. A
Buyer: General Property Group LLC
Seller: Steven Mcghehey
The real property described as: 702 S. Grape St, Medford, OR 97501
SELLER AND BUYER HEREBY AGREE THE FOLLOWING SHALL BE A PART OF THE REAL ESTATE SALE AGREEMENT REFERENCED ABOVE.

Line 248: Building and business is uninsured because it is not in operation. All parties agree to extend response time on offer (PC93015).

Buyer Signature General Property Group LLC Date ____ a.m. ____ p.m. ←
Buyer Signature Date ____ a.m. ____ p.m. ←
Seller Signature DocuSigned by: Steven Mcghehey Date 10/2/2015 a.m. ____ p.m. ←
Seller Signature Date ____ a.m. ____ p.m. ←
Selling Licensee Patricia Curtin Listing Licensee Jake Rockwell

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Sale Agreement # PC93015

FINAL AGENCY ACKNOWLEDGMENT

Both Buyer and Seller acknowledge having received the Oregon Real Estate Agency Disclosure Pamphlet, and hereby acknowledge and consent to the following agency relationships in this transaction: (1) Patricia Curtin (Name of Selling Licensee) of John L. Scott Real Estate Grants Pass (Name of Real Estate Firm) is the agent of *(check one)*: ☒ Buyer exclusively ("Buyer Agency"). ☐ Seller exclusively ("Seller Agency"). ☐ Both Buyer and Seller ("Disclosed Limited Agency"). (2) Jake Rockwell/Cord Allison (Name of Listing Licensee) of John L. Scott Medford/Ashland (Name of Real Estate Firm) is the agent of *(check one)*: ☒ Seller exclusively ("Seller Agency"). ☐ Both Buyer and Seller ("Disclosed Limited Agency").

(3) If both parties are each represented by one or more Licensees in the same Real Estate Firm, and Licensees are supervised by the same principal broker in that Real Estate Firm, Buyer and Seller acknowledge that said principal broker shall become the disclosed limited agent for both Buyer and Seller as more fully explained in the Disclosed Limited Agency Agreements that have been reviewed and signed by Buyer, Seller and Licensee(s).

Buyer shall sign this acknowledgment at the time of signing this Agreement before submission to Seller. Seller shall sign this acknowledgment at the time this Agreement is first submitted to Seller, even if this Agreement will be rejected or a counter offer will be made. Seller's signature to this Final Agency Acknowledgment shall not constitute acceptance of this Agreement or any terms therein.

Buyer [signature] Print General Property Group LLC Date 09/30/2015 ←

Buyer [DocuSigned by:] Print _____ Date _____ ←

Seller [signature] Print Steven Mcghehey Date 10/2/2015 ←

Seller [012BC81E32E144A...] Print _____ Date _____ ←

COMMERCIAL REAL ESTATE SALE AGREEMENT

This Agreement is intended to be a legal and binding contract.
If it is not understood, seek competent legal advice before signing. Time is of the essence of this Agreement.

1. DEFINITIONS/INSTRUCTIONS: (1) All references in this Sale Agreement to "Licensee" and "Firm" shall refer to Buyer's and Seller's real estate agents licensed in the State of Oregon and the respective real estate companies with which they are affiliated. (2) Licensee(s) and Firm(s) identified in the Final Agency Acknowledgment Section above are not parties to this Agreement, except as may be expressly applicable. (3) A "business day" shall mean Monday through Friday, except recognized legal holidays as enumerated in ORS 187.010 and 187.020. (4) Unless Seller and Buyer expressly provide otherwise, the phrase "signed and accepted" in the printed text of this Sale Agreement, or any addendum or counteroffer, however designated (collectively, "the Agreement"), shall mean the date and time that either the Seller and/or Buyer has/have: (a) Signed their acceptance of the Agreement received from the other party, or their licensee, and (b) Transmitted it to the sending party, or their licensee, either by manual delivery ("Manual Delivery"), or by facsimile or electronic mail (collectively, "Electronic Transmission"). (5) The sending of a signed acceptance of the Agreement via Electronic Transmission from one party, or their licensee, to the other party, or their licensee, shall have the same effect as Manual Delivery of the signed original. If the parties intend to use any other method for transmitting a signed offer or acceptance of the Agreement (such as regular mail, certified mail, or overnight delivery), they should so specify at Section 7 (Additional Provisions) of this Sale Agreement. (6) Time calculated in days after the date Buyer and Seller have signed and accepted the Agreement shall start on the first full business day after the date they have signed and accepted it. (7) Excepting only the Lead-Based Paint Contingency Period identified in Section 17, below, unless a different time is specified in the Agreement, all deadlines for performance, however designated, that are measured in business or calendar days, shall terminate as of 5:00 PM on the last day of that deadline, however designated.

2.1 PRICE/PROPERTY DESCRIPTION: Buyer *(print name(s))* General Property Group LLC

offers to purchase from Seller *(print name(s))* Steven Mcghehey

the following described property and all improvements thereon (hereinafter "the Property") situated in the State of Oregon, County of Jackson, and commonly known or identified as *(insert street address, city, zip code, tax identification number, lot/block description, etc.)*
37-1W-30 CD Tax lots 5200 and 5201
702 S Grape St, Medford, OR 97501

Buyer Initials ___ Date 9/30/15

DS
Seller Initials SM Date 10/2/2015

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Sale Agreement # PC93015

(Buyer and Seller agree that if it is not provided herein, a complete legal description as provided by the title insurance company in accordance with Section 8, below, shall, where necessary, be used for purposes of legal identification and conveyance of title.)
for the Purchase Price (in U.S. currency) of ..... A $ 140,000.00
on the following terms: earnest money herein receipted for ..... B $ 500.00
on _____, as additional earnest money, the sum of ..... C $ _____
at or before Closing, the balance of down payment ..... D $ _____
at Closing and upon delivery of ☒ DEED ☐ CONTRACT the balance of the Purchase Price ..... E $ 139,500.00
(Lines B, C, D and E should equal Line A)

2.2 BALANCE OF PURCHASE PRICE. *(Select A or B)*

A. ☒ **This is an all cash transaction.** Buyer to provide verification ("Verification") of readily available funds as follows *(select only one)*: ☐ Buyer has attached a copy of the Verification with the submission of this Agreement to Seller or Listing Licensee. ☐ Buyer will provide Seller or Listing Licensee with the Verification within _____ business days (five [5] if not filled in) after this Agreement has been signed and accepted; or ☐ Other *(Describe)*: _____
Seller may notify Buyer or Buyer's Licensee, in writing, of Seller's unconditional disapproval of the Verification within _____ business days (five [5] if not filled in) ("Disapproval Period") following its receipt by Seller or Listing Licensee, in which case, all earnest money deposits shall be promptly refunded and this transaction shall be terminated. **If Seller fails to provide Buyer or Selling Licensee with written unconditional disapproval of the Verification by 5:00 p.m. of the Disapproval Period, Seller shall be deemed to have approved the Verification. If Buyer fails to submit a Verification within a time frame selected above, unless the parties agree otherwise in writing, all earnest money deposits shall be promptly refunded and this transaction shall be terminated.**

B. ☐ **Balance of Purchase Price to be financed as follows** (Select only one): ☐ Conventional; ☐ FHA; ☐ Federal VA; ☐ Other (Describe): _____ (hereinafter "Loan Program"). **Buyer agrees to seek financing through a lending institution ("Lender") participating in the Loan Program identified above.**

Pre-Approval Letter. ☐ Buyer has attached a copy of a Pre-Approval Letter from Buyer's Lender or mortgage broker; ☐ Buyer does not have a Pre-Approval Letter at the time of making this offer; ☐ Buyer agrees to secure a Pre-Approval Letter as follows: _____

3.1 FINANCING CONTINGENCIES. If Buyer is financing any portion of the Purchase Price, this transaction is subject to the following financing contingencies: (1) Buyer and the Property to qualify for the loan from Lender; (2) Lender's appraisal shall not be less than the Purchase Price; and, 3) Other (Describe): _____
All Financing Contingencies are solely for Buyer's benefit and may be waived by Buyer in writing at any time.

3.2 FAILURE OF FINANCING CONTINGENCIES. If Buyer receives actual notification that any Financing Contingencies identified above have failed or otherwise cannot occur, Buyer shall promptly notify Seller, and the parties shall have _____ business days (two [2] if not filled in) following the day of Seller's receipt of such notification to either (a) Terminate this transaction by signing a Termination Agreement (OREF-057) or such other similar form as may be provided by Escrow; or (b) Reach a written mutual agreement upon such price and terms that will permit this transaction to continue. Neither Seller nor Buyer is required under the preceding provision (b) to reach such agreement. If (a) or (b) fail to occur within the time period identified herein, this transaction shall be automatically terminated and all earnest money shall be promptly refunded to Buyer. Buyer understands that upon termination of this transaction, Seller shall have the right to immediately place the Property back on the market for sale upon any price and terms as Seller determines, in Seller's sole discretion.

3.3 BUYER REPRESENTATION REGARDING FINANCING: As of the date of signing this Agreement, Buyer makes the following representations to Seller:
(1) Buyer shall apply for a loan not later than _____ business days (three [3] if not filled in) following the date Buyer and Seller have signed this Agreement, and will thereafter complete all reasonably necessary papers in a timely manner and exercise best efforts (including payment of all application, appraisal and processing fees, where applicable) to obtain the loan;
(2) Buyer shall make a good faith effort to secure the ordering of the Lender's appraisal no later than expiration of the Inspection Contingency Period in Section 15.2 of this Agreement, or if the Professional Inspection Addendum (OREF-058) is used, expiration of the Inspection Period;
(3) Buyer currently has liquid and available funds for the earnest money deposit and down payment, sufficient to Close the transaction described herein, and is not relying upon any contingent source of funds (e.g., from loans, gifts, sale or Closing of other property, 401K disbursements, etc.), except as follows (describe):
_____
_____
(4) Buyer authorizes Buyer's Lender or mortgage broker to provide non-confidential information to Listing and Selling Licensees regarding Buyer's loan application status.

Buyer Initials CC Date 9/30/15

DS
Seller Initials SM Date 10/2/2015

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Sale Agreement # PC93015

(5) Buyer shall promptly notify Seller or Seller's Licensee if, after signing this Agreement, Buyer substitutes another lender for any reason. Notwithstanding the preceding, Buyer shall not be permitted to select a Loan Program different than the one selected in Section 2.2.(B) above, without Seller's advance written consent.
(6) Buyer agrees to keep Seller promptly informed of all other material non-confidential developments regarding Buyer's financing and the timing of Closing.

3.4 INSURANCE:

Buyer is encouraged to promptly verify the availability and cost of property/casualty/ fire insurance that will be secured for the Property. Additionally, lenders may require proof of property/casualty/fire insurance as a condition of the loan.

3.5 FLOOD INSURANCE; ELEVATION CERTIFICATE: If the Property is located in a designated flood zone, flood insurance may be required as a condition of a new loan. Buyer is encouraged to promptly verify the need, availability, and cost of flood insurance, if applicable. An Elevation Certificate ("EC") is the document used by the federal National Flood Insurance Program ("NFIP") to determine the difference in elevation between a home or building, and the base flood elevation ("BFE"), which is a computed elevation to which floodwater is anticipated to rise during certain floods. The amount of the flood insurance premium for a particular property is based upon the EC. Not all properties in flood zones require an EC, depending upon when they were constructed. ECs must be prepared and certified by a land surveyor, engineer, or architect who is authorized by the local jurisdiction to certify elevation information. The costs and fees for an EC may range from a few hundred dollars to over a thousand. **If the Property requires an EC, it will need to be obtained prior to receiving a flood insurance quote. Additionally, lenders may require an EC as a condition of loan approval. For more information, go to the following link:** http://www.fema.gov/media-library-data/20130726-1914-25045-8243/floodsmart_factsheet_homeowners.pdf

4. **RECEIPT FOR EARNEST MONEY:** Selling Firm acknowledges receipt of earnest money from Buyer in the sum of $ 500.00 evidenced by ☐ CASH ☐ CHECK ☒ PROMISSORY NOTE payable as follows: _____;
☒ 5 ☒ business ☐ calendar days *(check one)* after this Agreement has been signed and accepted; or
☐ on or before _____, _____;
☐ Other form of Earnest Money: _____.

5. **EARNEST MONEY INSTRUCTIONS:** Buyer instructs Selling Firm, and Selling Firm agrees, to handle the earnest money as follows *(check all that apply)*:
☐ Hold any earnest money that is in the form of a check undeposited until this Agreement has been signed and accepted and/or the terms of any final counter offer(s), after which time deposit it as provided herein within three (3) banking days.
☐ Deposit any earnest money funds redeemed under a promissory note with _____.
☐ Deposit in Selling Firm's client trust account, and thereafter/or ☒ Deposit with Escrow.

Non-refundable Deposit. *(Do not complete A and B, below, unless the deposit is intended to become nonrefundable. If deposit(s) is/are in Escrow, additional written instructions may be necessary.)* Buyer and Seller agree that *(Check one or both of the following two boxes)*:
☐ the earnest money deposit of $_____ and/or ☐ the additional earnest money deposit of $_____ shall become nonrefundable for all purposes except those cases in which Seller's default results in a failure of this transaction to Close in accordance with this Agreement:

A. **Terms of disbursement/holding of nonrefundable deposit** *(Select only one of the following three boxes below)*:
☐ Disburse directly to Seller as follows: _____
☐ Remain in Escrow and disburse to Seller upon Closing or earlier termination of this transaction, or
☐ Remain in Selling Firm's client trust account and disburse to Seller upon Closing or earlier termination of this transaction;

B. **Event/timing of non-refundability**
The deposit(s) shall become nonrefundable immediately upon the occurrence of the following:
(Select only one of the following four boxes in B.)
☐ *(insert date)* _____
☐ *(insert event)* _____
☐ *(insert conditions to be satisfied or waived after which time disbursement shall occur)* _____
☐ Other: _____

Buyer Initials KC Date 9/30/15
Seller Initials SM DS Date 10/2/2015

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SELLING LICENSEE AND SELLING FIRM SHALL HAVE NO FURTHER LIABILITY WITH RESPECT TO EARNEST MONEY WHICH THE PARTIES HAVE AUTHORIZED TO BE TRANSFERRED TO A THIRD PARTY.

Selling Firm John L. Scott Real Estate Grants Pass Selling Licensee Signature ←

Office Address 705 NE 7th St, Grants Pass, OR 97526 Phone (541)476-1299 FAX (541)471-6244

6. EARNEST MONEY PAYMENT/REFUND: If (1) Seller does not approve this Agreement; or (2) Seller signs and accepts this Agreement but fails to furnish marketable title; or (3) Seller fails to complete this transaction in accordance with this Agreement, or perform any other act as herein provided; or (4) any condition which Buyer has made an express contingency in this Agreement (and has not been otherwise waived) fails through no fault of Buyer, then all earnest money shall be promptly refunded to Buyer. However, acceptance by Buyer of the refund shall not constitute a waiver of other legal remedies available to Buyer. If Seller signs and accepts this Agreement and title is marketable; and (1) Buyer has misrepresented Buyer's financial status; or (2) Buyer's bank does not pay, when presented, any check given as earnest money; or (3) Buyer fails to redeem, when due, any note given as earnest money; or (4) Buyer fails to complete this transaction in accordance with this Agreement, or perform any other act as herein provided, then all earnest money paid or agreed to be paid shall be paid to Seller either as liquidated damages or as otherwise allowed under Oregon law, and this transaction shall be terminated. **It is the intention of the parties that Seller's sole remedy against Buyer for Buyer's failure to Close this transaction shall be limited to the amount of earnest money paid or agreed to be paid herein.**

7. ADDITIONAL PROVISIONS AND CONDITIONS TO PURCHASE: Selling agent is related to buying company's manager. Buyer may obtain private money financing to be handled through escrow. Transaction is not contingent on financing.

For additional provisions, see Addendum _____.

8. TITLE INSURANCE: Unless otherwise provided herein, this transaction is subject to Buyer's review and approval of the exceptions disclosed on a preliminary title report and the recorded covenants, conditions and restrictions ("the Report and CC&Rs") showing the condition of title to the Property. **(If not fully understood, Buyer should immediately contact the title insurance company for further information or seek competent legal advice. Neither Listing nor Selling Licensee is qualified to advise on specific legal or title issues.)** Upon signature and acceptance of this Agreement by Buyer and Seller, Seller will, at Seller's sole expense, promptly order the Report from an Oregon title insurance company and furnish it to Buyer together with complete and legible copies of all exceptions noted in the Report. Upon receipt of the Report, Buyer shall have _____ business days (five [5] if not filled in) thereafter within which to notify Seller, in writing, of any matter(s) disclosed in the report which is/are unacceptable to Buyer ("the Objections"). Buyer's failure to timely object, in writing, to any exceptions disclosed in the Report shall constitute acceptance of those exceptions. However, Buyer's failure to timely object shall not relieve Seller of the duty to convey marketable title pursuant to Section 9 below. If, within _____ business days (five [5] if not filled in) following receipt of Buyer's Objection(s), if any, Seller fails to remove or correct them, or does not give written assurances reasonably satisfactory to Buyer that they will be removed or corrected, all earnest money shall be promptly refunded to Buyer and this transaction shall be terminated. This contingency is solely for Buyer's benefit and may be waived by Buyer in writing. Within thirty (30) days after Closing, Seller shall furnish to Buyer an owner's standard form policy of title insurance insuring marketable title in the Property to Buyer in the amount of the purchase price, free and clear of the Objections and all other title exceptions agreed to be removed as part of this transaction. So long as doing so shall be at no additional expense to Seller, Seller shall cooperate in all reasonable respects with the delivery to Buyer of an ALTA extended form policy of title insurance and any endorsements requested by Buyer.

9. DEED: Seller shall convey marketable title to the Property by *(check one)*: ☒ statutory warranty deed or ☐ _____

(If neither box is checked a statutory warranty deed shall be used) free and clear of all liens of record, except property taxes which are a lien but not yet payable, zoning ordinances, building and use restrictions, reservations in Federal patents, easements of record which affect the Property, covenants, conditions and restrictions of record, and those matters accepted by Buyer pursuant to Section 8 above.

10. SELLER-CARRIED FINANCING (E.G. LAND SALE CONTRACT/TRUST DEED/MORTGAGE/OPTION AGREEMENTS, RENT-TO-OWN, ETC.): *Note: If this transaction involves a land sale contract,* trust deed, mortgage, option, or lease-to-own agreement (hereinafter a "Seller-Carry Transaction") Oregon law requires that, unless exempted, individuals offering or negotiating the terms must hold a mortgage loan originator ("MLO") license. Your real estate licensee is not qualified to provide these services or to advise you in this regard. Legal advice is strongly recommended. Oregon law exempts the following individuals from the MLO licensing law: (a) Those who offer or negotiate terms of a residential mortgage loan with or on behalf of their spouse, child, sibling, parent, grandparent, grandchild or a relative in a similar relationship created by law, marriage or adoption. (b) Those who sell their primary residence they currently or previously lived in; and (c) Individuals who sell up to three (3) non-primary residences per 12-month period. (Note: One may not hold more than eight residential mortgage loans at one time.)

If this is a Seller-Carried Transaction, it shall be subject to Seller's determination whether to employ a Mortgage Loan Originator to offer and negotiate the terms of financing with Buyer. Seller shall make that determination and notify Buyer or Buyer's licensee in writing not later than _____ (five [5] if not filled in) business days after the date Buyer and Seller have signed and accepted this Sale Agreement ("the Notification Deadline"). Seller's failure to timely notify Buyer or Buyer's licensee, shall constitute an automatic election by Seller to offer and negotiate the terms of the transaction on Seller's own behalf.

Buyer Initials _____ Date 9/30/15

Seller Initials SM DS Date 10/2/2015

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The parties and/or their MLOs shall thereafter reach a binding written agreement upon the terms and conditions of their Seller-Carried Transaction not later than _____ business days (seven [7] if not filled in) after the date Seller has notified Buyer whether Seller will use a MLO, or the end of the Notification Deadline, whichever first occurs ("the Negotiation Period"). Upon failure of Buyer and Seller, and/or their MLOs to reach agreement as to the terms and conditions of the Seller-Carried Transaction within the Negotiation Period, this transaction shall automatically terminate, and all parties shall cooperate in signing such documentation reasonably necessary to effect a termination of this transaction and a refund of all deposits, if any, to Buyer.

Caveat: Buyer and Seller are strongly encouraged to secure competent legal advice in drafting any legally binding agreements relating to the Seller-Carried Transaction. If Escrow (as defined in Section 18) is instructed to prepare the note and trust deed or mortgage to be used in this transaction, state statute requires that Buyer and Seller receive from Escrow, at least three (3) days prior to Closing (as defined in Section 20), a statutory notice and a copy of the proposed documents. This requirement cannot be waived by Buyer or Seller without the approval of both of their respective Oregon-licensed attorneys.

11. FIXTURES AND PERSONAL PROPERTY: Except as provided in this Section 11, all fixtures, including trade fixtures, are to be left upon the Property as part of the Property being purchased, and all personal property is excluded from this transaction.
The following fixtures and/or trade fixtures are excluded from the Property being purchased: _____

The following personal property, in "AS-IS" condition is included as a part of the Property being purchased: All equipment currently located at the property to be included in sale.

(Attach inventory if necessary.) If certain personal property which is to be included as a part of this sale is to have a separately stated value in addition to the purchase price, the parties agree to attach a separate exhibit, jointly signed, identifying the stated value(s) of such property within _____ business days (five [5] if not filled in) following the date both parties have signed this Agreement.

12. EXISTING LEASES: The Property *(check one)*: ☐ is ☒ is not subject to one or more existing leasehold interests, which Seller represents and warrants are current and free from default. If applicable, Seller agrees to deliver complete and legible copies of the written lease(s) to Buyer for review within _____ business days (three [3] if not filled in) following the date Buyer and Seller have signed this Agreement. Buyer and Seller shall have _____ business days (five [5] if not filled in) following Buyer's receipt of all lease(s) within which to reach a signed written agreement with Seller regarding Buyer's approval of the lease(s) and the conditions, if any, under which they will be assumed and/or assigned. In the event such written agreement is not reached within the time provided herein, all earnest money shall be refunded to Buyer and this transaction shall be terminated. This condition is for the benefit of both Buyer and Seller, and may not be waived by either party without the other's written consent.

13. SELLER'S DOCUMENTS: *(check one)*: ☐ Seller has previously delivered to Buyer copies of all documents containing material information about the Property that Seller has in Seller's possession or control including but not limited to documents and records relating to the ownership, operation and maintenance of the Property (hereinafter "Relevant Business Documents"). ☐ Seller agrees that within _____ business days (ten [10] if not filled in) following the date Buyer and Seller have signed this Agreement, Seller will deliver to Buyer Relevant Business Documents. In addition to Relevant Business Documents, Seller shall, within the same period as provided in this Section 13, deliver to Buyer the following additional information: _____

14. SELLER REPRESENTATIONS: Subject to other written disclosures made by Seller as a part of this transaction, Seller makes the following representations to Buyer:
(1) Seller has full and complete authority to enter into this Agreement and convey the Property in accordance with the terms hereof.
(2) Seller has no notice from any governmental agency of a condemnation, environmental, zoning or similar proceeding, existing or planned, which could affect the use, development, operation or value of the Property.
(3) Seller has no knowledge of any hazardous substances in or about the Property.
(4) Seller knows of no material structural defects in or about the Property.
(5) All electrical wiring, heating, cooling, plumbing and irrigation equipment and systems and the balance of the Property, including landscaping, if any, will be in substantially the present condition at the time Buyer is entitled to possession.
(6) Seller has no notice of any liens or assessments to be levied against the Property.
(7) Seller has no notice from any governmental agency of any violation of law relating to the Property.
(8) Seller is not a "foreign person" under the Foreign Investment in Real Property Tax Act ("FIRPTA") as defined in this Agreement.
(9) Seller knows of no material discrepancies between visible lines of possession and use (such as existing fences, hedges, landscaping, structures, driveways, and other such improvements) currently existing on the Property offered for sale and the legal description of the Property.

Buyer Initials KC Date 9/30/15

Seller Initials SM, DS Date 10/2/2015

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(10) Seller shall keep the Property fully insured through Closing.
Seller agrees to promptly notify Buyer if, prior to Closing, Seller receives actual notice of any event or condition which could result in making any previously disclosed material information relating to the Property substantially misleading or incorrect. These representations are made to the best of Seller's knowledge. Seller may have made no investigations. Exceptions to items (1) through (10) are: _____

_____

_____

_____

Buyer acknowledges that the above representations are not warranties regarding the condition of the Property and are not a substitute for, nor in lieu of, Buyer's own responsibility to conduct a thorough and complete independent investigation, including the use of professionals, where appropriate, regarding all material matters bearing on the condition of the Property, its value, and its suitability for Buyer's intended use. Neither Listing nor Selling Licensee shall be responsible for inspecting or conducting any investigation of any aspects of the Property.

15. "AS-IS": Except for Seller's express written agreements and written representations contained herein, Buyer is purchasing the Property "AS-IS," in its present condition and with all defects apparent or not apparent.

INSPECTIONS (CHECK ONLY ONE BOX)

16.1 ENVIRONMENTAL HEALTH CONDITIONS: The following list identifies some, but not all, environmental conditions that may be found in and around all real property that may affect health: Asbestos, carbon monoxide, electric and magnetic fields, formaldehyde, lead and other contaminants in drinking water and well water, lead based paint, mold and mildew, radon, and leaking underground storage tanks. If Buyer has any concerns about these conditions or others, Buyer is encouraged to secure the services of a professional inspector, consultant, or health expert, for information and guidance. Neither the listing nor selling licensees are experts in environmental health hazards or conditions. For additional information, go to the Oregon Association of Realtors® Buyer advisory at: http://www.oregonrealtors.org and the Oregon Public Health Division at http://public.health.oregon.gov/Pages/Homes.aspx

16.2 INSPECTIONS: Buyer understands that it is advisable to have a complete inspection of the Property by qualified professional(s) relating to such matters as structural condition, soil condition/compaction/stability, environmental issues, survey, zoning, operating systems, and suitability for Buyer's intended purpose. Neither the Listing nor Selling Licensee is qualified to conduct such inspections and shall not be responsible to do so. If some or all of the Property includes residential housing, Buyer is encouraged to review the Oregon Property Buyer Advisory at "http://www.oregonrealtors.org".

☒ PROFESSIONAL INSPECTIONS: At Buyer's sole expense and risk, Buyer may have the Property and all elements and systems thereof inspected by one or more professionals of Buyer's choice at reasonable times after prior notice to Seller and after prior notice to any tenants of the Property as required by tenants' leases. Provided, however, Buyer must specifically identify in this Agreement any desired inspections which may include testing or removal of any portion of the Property including radon and mold. Buyer understands that Buyer is responsible for the restoration of the Property following any inspection(s)/test(s) performed by Buyer or on Buyer's behalf. Buyer shall have 15 business days (ten [10] if not filled in), after the date Buyer and Seller have signed this Agreement, (hereinafter "the Inspection Period") in which to complete all inspections and negotiations with Seller regarding any matters disclosed in any inspection report. However, during the Inspection Period, Seller shall not be required to modify any terms of this Agreement already reached with Buyer. Unless a written and signed modification is reached, at any time during the Inspection Period, Buyer may notify Seller or Listing Licensee, in writing, of Buyer's unconditional disapproval of the Property based on any inspection report(s), in which case, all earnest money deposits shall be promptly refunded and this transaction shall be terminated. Buyer shall indemnify, hold harmless, and defend Seller from all liens, costs, and expenses, including reasonable attorneys' fees and experts' fees, arising from or relating to Buyer's entry on and inspection of the Property. This agreement to indemnify, hold harmless, and defend Seller shall survive Closing or any termination of this transaction. Buyer shall promptly provide a copy of all reports to Seller only if requested by Seller. If Buyer fails to provide Seller or Listing Licensee with written unconditional disapproval of any inspection report(s) by 5:00 p.m. of the final day of the Inspection Period, Buyer shall be deemed to have accepted the condition of the Property. Note that if, prior to expiration of the Inspection Period, written agreement is reached with Seller regarding ALL Buyer's requested repairs, the Inspection Period shall automatically terminate, unless the parties agree otherwise in writing.

Identify Additional Inspections: _____

☐ BUYER'S WAIVER OF INSPECTION CONTINGENCY: Buyer represents to Seller and all Licensees and Firms that Buyer is fully satisfied with the condition of the Property and all elements and systems thereof and knowingly and voluntarily elects to waive the right to have any inspections performed as a contingency to the Closing of this transaction. Buyer's election to waive the right of inspection is solely Buyer's decision and at Buyer's own risk.

Buyer Initials KCI Date 9/30/15

DS
Seller Initials SM Date 10/2/2015

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Sale Agreement # PC93015

17. LEAD-BASED PAINT CONTINGENCY PERIOD: If the Property consists of or includes any type of residential housing, including single, multi-family or public housing, which Buyer (or Buyer's family) intend(s) to occupy and was constructed before 1978, a Lead-Based Paint Disclosure Addendum (hereinafter "the Disclosure Addendum") shall be promptly signed by Buyer, Seller and Listing and Selling Licensees, and become a part of this Agreement. Buyer shall also be provided with a pamphlet entitled "Protect Your Family From Lead in Your Home." Buyer shall have _____ calendar days (ten [10] unless a greater number is filled in.) within which to conduct a lead-based paint assessment or inspection (hereinafter referred to as "the Lead-Based Paint Contingency Period"), which shall commence immediately when Buyer and Seller sign the Disclosure Addendum. Unless the opportunity to conduct a risk assessment or inspection is expressly waived in the Disclosure Addendum, Buyer may, in writing, unconditionally cancel this transaction during the Lead-Based Paint Contingency Period and receive a prompt return of all earnest money deposits. Buyer understands that the failure to give timely written notice of cancellation prior to Midnight on the last day of the Lead-Based Paint Contingency Period shall constitute acceptance of the condition of the Property as it relates to the presence of lead-based paint or lead-based paint hazards.

☐ **OREF-021 Lead-Based Paint Disclosure Addendum is attached to this Agreement.**

18. ESCROW: This transaction shall be Closed at Ticor Title with Kim Ayres ("Escrow"), a neutral escrow located in the State of Oregon. Costs of Escrow shall be shared equally between Buyer and Seller, unless otherwise provided herein. Unless otherwise provided herein, the parties agree as follows: Seller authorizes Listing Firm to order a preliminary title report and owner's title policy at Seller's expense and further authorizes Escrow to pay out of the cash proceeds of sale the expense of furnishing such policy, Seller's recording fees, Seller's Closing costs and any encumbrances on the Property payable by Seller on or before Closing. Buyer shall deposit with Escrow sufficient funds necessary to pay Buyer's recording fees, Buyer's Closing costs, and lender's fees, if any. Real estate fees, commissions or other compensation for professional real estate services provided by Listing and/or Selling Firms shall be paid at Closing in accordance with the listing agreement, buyer service agreement or other written agreement for compensation.

19. ESCROW DEPOSIT: Escrow is hereby instructed by Buyer and Seller as follows: (1) Upon your receipt of a copy of this Agreement marked "rejected" by Seller or upon Listing Firm's written advice that the offer is "rejected" by Seller, you are to refund all earnest money to Buyer. (2) Upon your receipt of a copy of this Agreement signed by Buyer and Seller set up an escrow account and proceed with Closing in accordance with the terms of this Agreement. If you determine that the transaction cannot be Closed for any reason (whether or not there is then a dispute between Buyer and Seller) subject only to Section 36 below, you are to hold all earnest money deposits until you receive written instructions from Buyer and Seller, or a final ruling from a court or arbitrator, as to disposition of such deposits.

20. CLOSING: Closing shall occur on a date mutually agreed upon by Buyer and Seller, but in no event later than 10/30/2015 **("the Closing Deadline"). The terms "Closed", "Closing" or "Closing Date" shall mean when the deed or contract is recorded and funds are available to Seller. Buyer and Seller acknowledge that for Closing to occur by the Closing Deadline, it may be necessary to execute documents and deposit funds in Escrow prior to that date.** ***Caveat: Section 10 above requires three (3) days prior to the Closing Deadline if Escrow is to prepare a note and a deed of trust or mortgage.***

21. POSSESSION: Seller shall remove all personal property (including trash and debris) that is not a part of this transaction, and deliver possession of the Property to Buyer *(select one)*:

(1) ☒ by 5:00 p.m. on Closing;
(2) ☐ by _____ ☐ a.m. ☐ p.m. _____ days after Closing;
(3) ☐ by _____ ☐ a.m. ☐ p.m. on the _____ day of _____, _____.

If a tenant is currently in possession of the Property *(check one)*: ☐ Buyer will accept tenant at Closing; ☐ Seller shall have full responsibility for removal of tenant prior to Closing.

22. PRORATIONS: Prorates for rents, current year's real and personal property taxes, interest on assumed obligations, and other prepaid expenses attributable to the Property shall be prorated as of *(check one)*: ☒ the Closing Date; ☐ date Buyer is entitled to possession; or
☐ _____

23. UTILITIES: Seller shall pay all utility bills accrued to date Buyer is entitled to possession. **Buyer shall pay Seller for heating fuel then on premises, at Seller's supplier's rate on the possession date.** Payment shall be handled between Buyer and Seller outside of Escrow.

24. BINDING EFFECT/ASSIGNMENT: Subject to the following sentence, this Agreement is binding upon the heirs, personal representatives, successors and assigns of Buyer and Seller. Buyer's interest in this Agreement or in the Property *(check one)*: ☒ are assignable without prior written consent of Seller; ☐ are not assignable without prior written consent of Seller; ☐ are assignable only to an affiliated entity owned or controlled by Buyer without prior written consent of Seller.

25.1 SELLER ADVISORY: OREGON STATE TAX WITHHOLDING OBLIGATIONS. Subject to certain exceptions, Escrow is required to withhold a portion of Seller's proceeds if they are a non-resident individual or corporation as defined under Oregon law. Buyer and Seller agree to execute and deliver, as appropriate, any instrument, affidavit or statement, and to perform any acts reasonable or necessary to carry out the provisions of Oregon law.

Buyer Initials KC Date 9/30/15

DS
Seller Initials SM Date 10/2/2015

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25.2 SELLER/BUYER ADVISORY: FIRPTA TAX WITHHOLDING OBLIGATIONS. Seller is advised that upon Closing, Federal law, known as the Foreign Investment in Real Property Tax Act ("FIRPTA"), allows an escrow company, if they agree, to withhold a portion of Seller's proceeds if the real property is located within the United States and Seller is a "foreign person." A "foreign person" includes a non-resident alien individual, foreign corporation, foreign partnership, foreign trust and foreign estate. The amount deducted from Seller's proceeds is ten percent (10%) of the gross sales price and is required to be delivered over to the Internal Revenue Service ("IRS") within twenty (20) days of the closing of the transaction. Buyer may become responsible for payment if FIRPTA applies and Escrow is not instructed to withhold the funds. FIRPTA will not apply to this transaction so long as: (a) The sale price is $300,000 or less; (b) The Property is to be used by Buyer as a residence; and, (c) Buyer is an individual. Where applicable, Buyer and Seller agree to execute and deliver, as appropriate, any instrument, affidavit or statement, reasonably requested by Escrow to carry out the provisions of FIRPTA. NOTE: AT SECTION 14 OF THIS AGREEMENT, SELLER REPRESENTS THAT SELLER IS NOT A "FOREIGN PERSON" (HEREINAFTER "SELLER'S NON-FIRPTA STATUS"). IF SELLER IS UNSURE, SELLER SHOULD FIRST CONFER WITH SELLER'S TAX COUNSEL OR CPA BEFORE ENTERING INTO THIS TRANSACTION. IN SUBMITTING THIS OFFER, BUYER REPRESENTS THAT BUYER HAS NO KNOWLEDGE, INFORMATION, OR BELIEF THAT SELLER IS A FOREIGN PERSON OR THAT THIS TRANSACTION IS SUBJECT TO FIRPTA. SELLER ACKNOWLEDGES THAT BUYER, LISTING AND SELLING LICENSEES, THEIR RESPECTIVE FIRMS, AND ESCROW, ITS AGENTS, EMPLOYEES AND REPRESENTATIVES, SHALL HAVE THE ABSOLUTE RIGHT TO RELY UPON SELLER'S REPRESENTATION OF SELLER'S NON-FIRPTA STATUS AT SECTION 14, ABOVE. THIS RIGHT OF RELIANCE SHALL CONTINUE THROUGH THE CLOSING DATE AND THEREAFTER, UNLESS SELLER HAS DISCLOSED OTHERWISE IN A WRITTEN COUNTER-OFFER OR ADDENDUM TO THIS SALE AGREEMENT. IF AT ANY TIME DURING THIS TRANSACTION, IT IS DETERMINED THAT SELLER'S REPRESENTATION OF SELLER'S NON-FIRPTA STATUS WAS INCORRECT, FOR ANY REASON, SELLER AND BUYER HEREBY APPOINT AND INSTRUCT ESCROW TO ACT AS THE QUALIFIED SUBSTITUTE FOR BUYER AS DEFINED BY THE IRS, FOR PURPOSES OF PREPARING THE NECESSARY PAPERWORK, WITHHOLDING THE NECESSARY FUNDS, AND REMITTING THE SAME TO THE IRS. IF FOR ANY REASON, ESCROW DECLINES TO ACT AS A QUALIFIED SUBSTITUTE, ESCROW IS REQUESTED TO PROMPTLY NOTIFY SELLER AND BUYER IN A TIMELY MANNER SO THEY MAY MAKE OTHER ARRANGEMENTS PRIOR TO THE SCHEDULED CLOSING. SELLER AND BUYER ACKNOWLEDGE THAT IF FIRPTA APPLIES TO THIS TRANSACTION, ESCROW'S ROLE AS A QUALIFIED SUBSTITUTE MAY RESULT IN A DELAY IN CLOSING THIS TRANSACTION. UNLESS OTHERWISE PROVIDED IN THIS SALE AGREEMENT OR ANY SUBSEQUENT SIGNED WRITTEN AGREEMENT BETWEEN SELLER AND BUYER, CONFIRMATION OF SELLER'S NON-FIRPTA STATUS IS NOT A CONTINGENCY IN THIS TRANSACTION.

26. APPROVED USES: "THE PROPERTY DESCRIBED IN THIS INSTRUMENT MAY NOT BE WITHIN A FIRE PROTECTION DISTRICT PROTECTING STRUCTURES. THE PROPERTY IS SUBJECT TO LAND USE LAWS AND REGULATIONS THAT, IN FARM OR FOREST ZONES, MAY NOT AUTHORIZE CONSTRUCTION OR SITING OF A RESIDENCE AND THAT LIMIT LAWSUITS AGAINST FARMING OR FOREST PRACTICES, AS DEFINED IN ORS 30.930, IN ALL ZONES. BEFORE SIGNING OR ACCEPTING THIS INSTRUMENT, THE PERSON TRANSFERRING FEE TITLE SHOULD INQUIRE ABOUT THE PERSON'S RIGHTS, IF ANY, UNDER ORS 195.300, 195.301 AND 195.305 TO 195.336 AND SECTIONS 5 TO 11, CHAPTER 424, OREGON LAWS 2007, SECTIONS 2 TO 9 AND 17, CHAPTER 855, OREGON LAWS 2009, AND SECTIONS 2 TO 7, CHAPTER 8, OREGON LAWS 2010. BEFORE SIGNING OR ACCEPTING THIS INSTRUMENT, THE PERSON ACQUIRING FREE TITLE TO THE PROPERTY SHOULD CHECK WITH THE APPROPRIATE CITY OR COUNTY PLANNING DEPARTMENT TO VERIFY THAT THE UNIT OF LAND BEING TRANSFERRED IS A LAWFULLY ESTABLISHED LOT OR PARCEL, AS DEFINED IN ORS 92.010 OR 215.010, TO VERIFY THE APPROVED USES OF THE LOT OR PARCEL, TO VERIFY THE EXISTENCE OF FIRE PROTECTION FOR STRUCTURES AND TO INQUIRE ABOUT THE RIGHTS OF NEIGHBORING PROPERTY OWNERS, IF ANY, UNDER ORS 195.300, 195.301 AND 195.305 TO 195.336 AND SECTIONS 5 TO 11, CHAPTER 424, OREGON LAWS 2007, SECTIONS 2 TO 9 AND 17, CHAPTER 855, OREGON LAWS 2009, AND SECTIONS 2 TO 7, CHAPTER 8, OREGON LAWS 2010."

27. IRC 1031 EXCHANGE: In the event Buyer or Seller elects to complete an IRC 1031 exchange in this transaction, the other party agrees to cooperate with them, and the accommodator, if any, in a manner necessary to complete the exchange, so long as it will not delay the Close of escrow or cause additional expense or liability to the cooperating party. Unless otherwise provided herein, this provision shall not become a contingency to the Closing of this transaction.

28.1 LEVY OF ADDITIONAL PROPERTY TAXES: The Property *(check one)*: ☐ is ☒ is not specially assessed for property taxes (e.g., farm, forest, tax abatement or other) in a way which may result in levy of additional taxes in the future. If it is specially assessed, Seller represents that the Property is current as to income or other conditions required to preserve its deferred/abated tax status. If, as a result of Buyer's actions or the Closing of this transaction, the Property either is disqualified from special use assessment or loses its deferred/abated property tax status, unless otherwise specifically provided in this Agreement, Buyer shall be responsible for and shall pay when due, any deferred and/or additional taxes and interest which may be levied against the Property and shall hold Seller completely harmless therefrom. However, if as a result of Seller's actions prior to Closing, the Property either is disqualified from its entitlement to special use assessment or loses its deferred/abated property tax status, Buyer may, at Buyer's sole option, promptly terminate this transaction and receive a refund of all deposits paid by Buyer in anticipation of Closing; or Close this transaction and hold Seller responsible to pay into Escrow all deferred and/or additional taxes and interest which may be levied or recaptured against the Property and hold Buyer completely harmless therefrom. The preceding shall not be construed to limit Buyer's or Seller's available remedies or damages arising from a breach of this Section 28.1.

28.2 HISTORIC PROPERTY DESIGNATION: If the Property is or may be subject to a historic Property local ordinance or is subject to or may qualify for the Historic Property Special Property Tax Assessment under ORS 358.475 to 358.565, Seller shall provide **OREF-045 Historic Property Addendum.**

Buyer Initials KE / Date 9/30/15

Seller Initials SM / Date 10/2/2015

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Sale Agreement # PC93015

E. DISPUTE RESOLUTION INVOLVING BUYER AND SELLER ONLY

29. DISPUTE RESOLUTION: Any dispute between Buyer and Seller relating to the interpretation or enforcement of this Agreement *(check one)* ☐ shall ☐ shall not, be subject to the arbitration provisions of Section 32. Failure to check a box in this Section 29 shall constitute an election NOT to arbitrate. Buyer and Seller agree that all claims, controversies and disputes between them, including those for rescission (hereinafter collectively referred to as "Claims"), relating directly or indirectly to this transaction, shall be resolved in accordance with the procedures set forth herein, which shall expressly survive Closing or earlier termination of this Agreement. Provided, however, the following matters shall not constitute Claims: (1) any proceeding to collect, interpret or enforce any mortgage, trust deed, land sale contract or recorded construction lien or (2) a forcible entry and detainer action (eviction). The filing in court for the issuance of any provisional process or similar remedy described in the Oregon or Federal Rules of Civil Procedure shall not constitute a waiver of the right or duty to utilize the dispute resolution procedures specified herein. In the event of any suit, action or arbitration relating to the enforcement or interpretation of this Agreement, the matter shall be governed exclusively by Oregon law, and venue shall be placed in the State of Oregon for all purposes.

30. SMALL CLAIMS BETWEEN BUYER AND SELLER: Notwithstanding the following Sections, Buyer and Seller agree that all Claims that are within the jurisdiction of the Small Claims Court shall be brought and decided there, in lieu of mediation, arbitration or litigation in any other forum.

31. MEDIATION BETWEEN BUYER AND SELLER: If Buyer or Seller were represented in this transaction by a Licensee whose principal broker is a member of the National Association of REALTORS®, all Claims shall be submitted to mediation in accordance with the procedures of the Home Seller/Home Buyer Dispute Resolution System of the National Association of REALTORS® or other organization-adopted mediation program (collectively "the System"). Provided, however, if Licensee's principal broker is not a member of the National Association of REALTORS® or the System is not available through the principal broker's Association of REALTORS®, then all Claims shall be submitted to mediation either through: (1) the special mediation program administered by Arbitration Service of Portland ("ASP") or (2) any other impartial private mediator(s) or program(s), so long as such services are available in the county where the Property is located, as selected by the party first filing for mediation.

32. ARBITRATION BETWEEN BUYER AND SELLER: All Claims between Buyer and Seller that have not been resolved by mediation, or otherwise, shall be submitted to final and binding private arbitration in accordance with Oregon laws. Filing for arbitration shall be treated the same as filing in court for purposes of meeting any applicable statutes of limitation, statute of ultimate repose, or for purposes of filing a lis pendens. Buyer or Seller may file Claims either with ASP or, alternatively, with any other professional arbitration service that has existing rules of arbitration, provided that the selected alternative service also uses arbitrators who are in good standing with the Oregon State Bar, with expertise in real estate law and who can conduct the hearing in the county where the Property is located. The arbitration service in which the Claim is first filed shall handle the case to its conclusion. BY CONSENTING TO THIS PROVISION BUYER AND SELLER ARE AGREEING THAT DISPUTES ARISING UNDER THIS AGREEMENT SHALL BE HEARD AND DECIDED BY ONE OR MORE NEUTRAL ARBITRATORS AND BUYER AND SELLER ARE GIVING UP THE RIGHT TO HAVE THE MATTER TRIED BY A JUDGE OR JURY. THE RIGHT TO APPEAL AN ARBITRATION DECISION IS LIMITED UNDER OREGON LAW.

33. ATTORNEY FEES IN CLAIMS BETWEEN BUYER AND SELLER: The prevailing party in any suit, action or arbitration (excluding those Claims filed in Small Claims Court) shall be entitled to recovery of all reasonable attorney fees and costs and disbursements as defined in ORCP 68 including all filing and mediator fees paid in mediation). Provided, however, if a mediation service was available to the Buyer or Seller when the Claim arose the prevailing party shall not be entitled to any award of attorney fees unless it is established to the satisfaction of the arbitrator(s) or judge that the prevailing party offered or agreed in writing to participate in mediation prior to, or promptly upon, the filing in arbitration or court.

F. DISPUTE RESOLUTION INVOLVING LICENSEES OR FIRMS

34. SMALL CLAIMS COURT AND ARBITRATION: All claims, controversies or disputes relating to this transaction, including those for rescission, in which a Licensee or Firm identified in the Final Agency Acknowledgment Section above is named or included as a party, shall be resolved exclusively as follows: (1) If within the jurisdictional limit of Small Claims Court, the matter shall be brought and decided there, in lieu of arbitration or litigation in any other forum. The preceding sentence shall be construed to mean that no party shall have a right to request a jury trial and so remove the matter form the Small Claims Department of the Circuit Court under ORS 46.455(3). BY CONSENTING TO THIS PROVISION, BUYER AND SELLER ACKNOWLEDGE THAT THEY ARE GIVING UP THE CONSTITUTIONAL RIGHT TO HAVE THE MATTER TRIED BY A JUDGE OR JURY IN CIRCUIT COURT, AND THAT A JUDGMENT IN SMALL CLAIMS COURT IS FINAL AND BINDING, AND THERE IS NO RIGHT OF APPEAL. (2) All other claims, controversies or disputes involving such Licensee or Firm shall be resolved through final and binding arbitration using the arbitration selection process described in Section 33, above. Filing for arbitration shall be treated the same as filing in court for purposes of meeting any applicable statutes of limitation or for purposes of filing a lis pendens. This Section 34 shall be in lieu of litigation involving such Licensee or Firm in any other forum. Such Licensee or Firm may voluntarily participate in formal or informal mediation at any time, but shall not be required to do so under this Section 34. This Section 34 shall not apply to those matters in which: (a) The claim, controversy or dispute is exclusively between REALTORS® and is otherwise required to be resolved under the Professional Standards Arbitration provisions of the National Association of REALTORS®; (b) Licensee or Firm has agreed to participate in alternative dispute resolution in a prior written listing, service or fee

Buyer Initials CCI Date 9/30/15

Seller Initials SM Date 10/7/2015

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LINES WITH THIS SYMBOL ← REQUIRE A SIGNATURE OF BUYER AND/OR SELLER AND DATE

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DocuSign Envelope ID: 5AAD4C9B-0434-4FC7-9F64-7435EDA5A485

Sale Agreement # PC93015

agreement with Buyer or Seller, or (c) Licensee or Firm is Buyer or Seller in this transaction (in which case, Sections 29-33 shall apply). This Section 34 shall expressly survive Closing or earlier termination of this Agreement. In the event of any suit, action or arbitration relating to the enforcement or interpretation of this Agreement, the matter shall be governed exclusively by Oregon law, and venue shall be placed in the State of Oregon for all purposes. **In the event that one or more Licensees and/or Firms have been named or included in any claims, controversies or disputes that also include Buyer and/or Seller, the alternative dispute resolution and attorney fee provisions of Sections 29-33 above, shall continue to apply as between Buyer and/or Seller, and this Section 34 shall apply exclusively to Licensees and/or Firms.**

---

35. PROPERTY DISCLOSURE LAW: Buyer and Seller acknowledge that if this transaction is subject to Oregon's Seller Property Disclosure Law, unless otherwise waived in writing, Buyer shall have a right to revoke Buyer's offer within five (5) business days from Seller's delivery of the Seller's Property Disclosure Statement.

36. COUNTERPARTS/DELIVERY: This Agreement may be signed in multiple counterparts with the same legal effect as if all parties signed the same document. This shall mean that delivery (e.g., transmissions manually, by facsimile, electronic mail, overnight mail, first-class regular mail, or certified mail, etc.) of a legible true copy of a signed original of this Agreement, including but not limited to all addenda, counter offers, and legal notices required thereunder, shall be treated the same as delivery of the original document.

---

37. AGREEMENT TO PURCHASE: Buyer agrees to purchase the Property upon the terms and conditions set forth in this Agreement. Buyer acknowledges receipt of a completely filled-in copy of this Agreement which Buyer has fully read and understands. Buyer acknowledges that Buyer has not relied upon any oral or written statements, made by Seller or any Licensees, which are not expressly contained in this Agreement. Neither Seller nor any Licensee(s) warrant the square footage of any structure or the size of any land being purchased. If square footage or land size is a material consideration, all structures and land should be measured by Buyer prior to signing, or should be made an express contingency to this Agreement.

Deed or contract shall be prepared in the name of General Property Group LLC.

This offer shall automatically expire on *(insert date)* October 1, 2015 at 5:00 ☐ a.m. ☒ p.m., (the "Offer Deadline"), if not accepted by that time.

Buyer may withdraw this offer before the Offer Deadline any time prior to Seller's acceptance. If Seller accepts this offer after the Offer Deadline, it shall not be binding upon Buyer unless accepted by Buyer in writing within _____ business days (five [5] if not filled in) after the date of Seller's acceptance by so indicating at Section 40 below. This offer may be accepted by Seller only in writing.

Buyer K [illegible] manager Date 9/30/15 _____ a.m. 12:58 p.m. ←
General Property Group LLC

Buyer _____ Date _____ _____ a.m. ___ p.m. ←

Address _____ Zip _____

Phone Home _____ Work _____ E-mail _____ Fax _____

NO CHANGES OR ALTERATIONS ARE PERMITTED TO ANY PORTION OF THE PRE-PRINTED FORMAT OR TEXT OF THIS FORM. ANY SUCH PROPOSED CHANGES OR ALTERATIONS SHOULD BE MADE ON A SEPARATE DOCUMENT. CHANGES BY SELLER OR LISTING LICENSEE TO THE TERMS OR PROVISIONS ABOVE BUYER'S SIGNATURE SHOULD ALSO BE ON A SEPARATE DOCUMENT.

This offer was submitted to Seller for signature on the 2 day of October 2015, at 10:07 a.m. _____ p.m.

By Cord Allison (Licensee(s) presenting offer).

---

38. AGREEMENT TO SELL / ACKNOWLEDGEMENTS / DISPOSITION OF EARNEST MONEY: Seller accepts Buyer's offer. Seller acknowledges receipt of a completely filled-in copy of this Agreement, which Seller has fully read and understands. Seller acknowledges that Seller has not relied upon any oral or written statements of Buyer or of any Licensee(s) which are not expressly contained in this Agreement. Seller instructs that all earnest money distributable to Seller pursuant to Section 6 above, shall be disbursed as follows after deduction of any title insurance and Escrow cancellation charges: *(check one)* ☐ First to Listing Firm to the extent of the agreed commission just as if the transaction had been Closed, with residue to Seller, ☐ or _____.

Seller _____ Date _____ _____ a.m. ___ p.m. ←
Steven Mcghehey

Seller _____ Date _____ _____ a.m. ___ p.m. ←

Address _____ Zip _____

Phone Home _____ Work _____ E-mail _____ Fax _____

Buyer Initials KC / ___ Date 9/30/15

Seller Initials SM / ___ Date 10/2/2015

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Sale Agreement # PC93015

490 39. REJECTION/COUNTER OFFER: *SELECT ONE:* ☒ Seller does not accept the above offer, but makes the attached counter offer.
491 ☐ Seller rejects Buyer's offer.
492 Seller Steven Mighetty Steven Mighetty Date _____, _____ a.m. ___ p.m.←
493 Seller _____ Date 10/2/2015, _____ a.m. ___ p.m.←
494 Address _____ Zip _____
495 Phone Home _____ Work _____ E-mail _____ Fax _____

496 40. BUYER'S ACKNOWLEDGMENT: Buyer acknowledges receipt of a copy of Seller's written response to this Agreement. If Seller's response
497 is an acceptance of Buyer's offer that occurred after the Offer Deadline identified in Section 37 above, Buyer *(select only one)* ☐ agrees ☐ does
498 not agree, to be bound thereby. (The failure to check either box shall constitute rejection of Seller's acceptance after the Offer Deadline.) If
499 Buyer checks the box agreeing to be bound by Seller's acceptance occurring after the Offer Deadline, this Agreement shall become binding on the
500 parties when Buyer's acceptance has been transmitted to Seller or Seller's Licensee.
501 Buyer K Curtis manager General Property Group LLC Date 10/7/15, 10:50 a.m. ___ p.m.←
502 Buyer _____ Date _____, _____ a.m. ___ p.m.←

503 41. FIRMS/LICENSEES:
504 Selling Licensee Patricia A. Curtin Selling Firm John L. Scott Real Estate Grants Pass
505 Selling Firm Office Address 705 NE 7th St. Grants Pass, OR 97526
506 Phone (541)476-1299 Phone _____ E-mail _____
507 Fax (541)471-6244
508 Date and Time of Transmission of Acceptance _____

509 Listing Licensee Jake Rockwell/Cord Allison Listing Firm John L. Scott Medford/Ashland
510 Listing Firm Office Address _____
511 Phone _____ Phone _____ E-mail _____
512 Fax _____

Buyer Initials KC ___ Date 9/30/15

DS
Seller Initials SM ___ Date 10/2/2015

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Sale Agreement # PC93015

PROMISSORY NOTE FOR EARNEST MONEY

Buyer(s) General Property Group LLC
Seller(s) Steven Moghehey
Property Address 702 S Grape St. Medford, OR 97501

Buyer(s): General Property Group LLC
jointly and severally promise to pay to *(select only one payee)*:

☐ Real Estate Firm: _____

☒ Seller(s): Steven Moghehey

the sum of $ 500.00

1) Upon redemption of this promissory note, funds shall be made payable to *(select only one)*:

☐ Real Estate Firm Trust Account: _____

☐ Seller(s): _____

☒ Escrow / Title Company: Ticor Title with Kim Ayres

2) This Note is due and payable *(select only one due date)*:

☒ 5 ☒ business ☐ calendar *(Select one)* days after mutual acceptance of the Real Estate Sale Agreement;

☐ on or before _____

3) If this Note is not paid when due, Buyer(s) shall pay interest at the rate of ten percent (10%) per annum on the unpaid balance from the due date until it is paid in full. **BUYER(S) UNDERSTAND(S) THAT TIME IS OF THE ESSENCE, AND THAT THE FAILURE TO PAY THIS NOTE WHEN DUE, MAY CONSTITUTE A DEFAULT UNDER THE REAL ESTATE SALE AGREEMENT WITH SELLER.**

4) If Real Estate Firm is named as the payee of this Note, and Note is not paid when due, Buyer(s) hereby consent(s) to Real Estate Firm assigning and transferring it to Seller(s) for all purposes including collection.

5) This Note is hereby incorporated into and made a part of the Real Estate Sale Agreement between Seller(s) and Buyer(s). In the event of any dispute between said parties, the mediation, arbitration and attorney fee provisions therein shall expressly apply.

6) If payment is not made on or before the due date, Buyer(s) understand that Principal Broker is instructed by Seller(s) to promptly assign and transfer this Note to Seller(s), without recourse, and for all purposes, including collection. It is expressly understood and agreed that neither Principal Broker nor Principal Broker's Firm, its owners, officers or directors, licensees, employees or representatives shall have any duty (fiduciary or otherwise), responsibility or liability to Seller(s) to enforce collection of the Note, nor for any fees or costs associated therewith.

Buyer K-O Cat manager General Property Group LLC Date 9/30/15 ← Seller Steven Moghehey Steven Moghehey 012BD81E32E144A... Date 10/2/2015 ←

Buyer _____ Date _____ ← Seller _____ Date _____ ←

Selling Licensee Patricia A. Curtin Listing Licensee Jake Rockwell/Cord Allison

Selling Firm John L. Scott Real Estate Grants Pass Listing Firm John L. Scott Medford/Ashland

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OREF 069

Fw: Chemical Disposal

Patricia Curtin

Mon 1/16/2017 12:34 PM

Sent Items

To: Chen, Keo <Chen.Keo@cleanharbors.com>;

1 attachments (147 KB)

702 S Grape St_Chemical Inventory.pdf;

From: Patricia Curtin
Sent: Tuesday, November 15, 2016 2:47 PM
To: Keene, David A
Subject: Re: Chemical Disposal

Hi David,

I hope you are doing well. We would need you to pump. I have been told that Tanks 2, 3, 4, O-1, and O-2 should be transferred to totes and disposed of. We would need to you provide totes for the waste that is in tanks. I've been told that tanks 5, 6, 7, 8, 9, and 11 can be pumped out and consolidated.

Totes 1, 2, 4, and 5 are 275 gal. Tote 3 is 50 gal. These should be able to be shipped as is.

I believe the drums of acid should be able to be shipped as is. The 1-gallon containers and 5-gallon containers should be able to be shipped in drums. (I've attached a list of these chemicals.)

Please give me a quote for the acid labpack and the toxic loosepack to be packed. I do not know if they are already packed.

Thank you so much.

Sincerely,

Patricia

From: Keene, David A <keene.david@cleanharbors.com>
Sent: Tuesday, November 15, 2016 8:15:22 AM
To: Patricia Curtin
Subject: RE: Chemical Disposal

RE: Quote

Chen, Keo <Chen.Keo@cleanharbors.com>

Wed 1/11/2017 9:16 AM

To: Patricia Curtin <Patricia_Curtin@hotmail.com>;

Patricia,

I will have them call you

Thanks
Keo

From: Patricia Curtin [mailto:Patricia_Curtin@hotmail.com]
Sent: Tuesday, January 10, 2017 9:34 PM
To: Chen, Keo
Subject: Re: Quote

Hi Keo,

Do you know what time the chemists will be at 702 S Grape St tomorrow (Wednesday)? Please let me know. Thank you so much!

Sincerely,

Patricia

From: Chen, Keo <Chen.Keo@cleanharbors.com>
Sent: Tuesday, January 10, 2017 7:48:56 AM
To: Patricia Curtin
Subject: RE: Quote

Hi Patricia,

On the final page you can upload a copy of the analytical report that pertains to that waste profile.

Thanks
Keo

From: Patricia Curtin [mailto:Patricia_Curtin@hotmail.com]
Sent: Monday, January 09, 2017 5:14 PM
To: Chen, Keo
Subject: Re: Quote

Hi Keo,

The website will not let us submit the rest of the profiles. It says "You answered constituent concentrations are based on analytical testing, hence analysis must be provided. Please attach /upload the required documents (please use the upload button on the submit screen)". Please let me know what to do. Thank you so much.

To: Keene, David A
Subject: Re: Quote

Hi David,

I hope you are doing well. Attached are the signed quotes for 702 S Grape St. Thank you.

Sincerely,

Patricia
(541) 292-0433

From: Keene, David A <keene.david@cleanharbors.com>
Sent: Monday, December 12, 2016 2:44:41 PM
To: Patricia Curtin
Subject: Automatic reply: Quote

I will be off on Friday 12/9 and in the field on Monday 12/12. If you need scheduling or have an urgent matter please contact Keo Chen at 503.953.6461 or chen.keo@cleanharbors.com

Hi Keo,

Please call me when you get this. Thank you.

Sincerely,

Patricia
(541) 292-0433

From: Chen, Keo <Chen.Keo@cleanharbors.com>
Sent: Friday, January 13, 2017 10:30:08 AM
To: Patricia Curtin
Subject: Medford plating

Hi Patricia,

My understanding is that there is a significant amount of additional waste that our crew found when they were out there this week that was not on our original bid. I will be putting a new quote together to cover the additional items to send over to you as soon as I can.

Thank you,

Safety Starts with Me: Live It 3-6-5

Keo Chen
Technical Services Branch Manager
OR/AK Regions
Clean Harbors
(c) 503.953.6461
(o) 503.742.7107
chen.keo@cleanharbors.com

CleanHarbors

From: Patricia Curtin [mailto:Patricia_Curtin@hotmail.com]
Sent: Friday, January 13, 2017 3:02 PM
To: Large, John J
Subject: 720 S Grape St

Hi John,

I hope you are doing well. Please let me know when you will be coming to Medford to dispose of the chemicals at 702 S Grape St as soon as possible. Thank you so much.

Sincerely,

Patricia Curtin
(541) 292-0433

Re: Medford Plating

Patricia Curtin

Mon 1/30/2017 10:55 AM

Sent Items

To:Simpson, Taylor <Simpson.Taylor@cleanharbors.com>;

Hi Taylor,

Thank you for your email. I believe the filters are just dust filters. I do not know what the 16 gallon drum is. Do you have an idea of when John will be there? Please let me know. Thank you so much!

Sincerely,

Patricia
(541) 292-0433

From: Simpson, Taylor <Simpson.Taylor@cleanharbors.com>
Sent: Friday, January 27, 2017 10:31:38 AM
To: Patricia_Curtin@hotmail.com
Cc: Chen, Keo
Subject: Medford Plating

Hi Patricia,

I'm working on profiles for the waste at Medford Plating. Are the filters on your list just dust filters, or are they contaminated with something else? What are these filters stored in? Also, can you give us any more information on the 15 gallon drum with the corroded label? The chemists were not able to identify the contents.

Thank you,
Taylor

Safety Starts with Me: Live It 3-6-5

Taylor Simpson
HHW Program Manager
Clean Harbors Environmental
16540 SE 130th Ave.
Clackamas, OR 97015
(o) 503-742-7112
(c) 360-607-5434
[simpson.taylor@cleanharbors.com]simpson.taylor@cleanharbors.com
www.cleanharbors.com

CleanHarbors

Medford Plating facility

Chen, Keo <Chen.Keo@cleanharbors.com>

Fri 2/10/2017 12:24 PM

To:Patricia Curtin <Patricia_Curtin@hotmail.com>;

Hi Patricia,

I have a crew and a driver scheduled to be down Wednesday morning the 15th to complete your disposal project. I would expect them to be there around 8AM. Who will be the contact?

Thanks

Safety Starts with Me: Live It 3-6-5

Keo Chen
Technical Services Branch Manager
OR/AK Regions
Clean Harbors
(c) 503.953.6461
(o) 503.742.7107
chen.keo@cleanharbors.com



BEFORE THE OFFICE OF ADMINISTRATIVE HEARINGS
STATE OF OREGON
for the
ENVIRONMENTAL QUALITY COMMISSION

IN THE MATTER OF:	)	**NOTICE OF TELEPHONE HEARING**
	)	
GENERAL PROPERTY GROUP LLC	)	OAH Reference No.: 2018-ABC-01716
	)	Agency Case No.: LQ/HW-WR-2016-179

PLEASE TAKE NOTICE that a contested case hearing has been scheduled in the above matter before the Office of Administrative Hearings.

Hearing Date: October 23, 2018 **Hearing Time: 9:00 AM**

Location: **By Telephone: Hearing Phone Numbers and Access Code:**
- Toll Free – 1-877-622-4041
- ACCESS CODE – 7101716

IMPORTANT PHONE HEARING INSTRUCTIONS

At the date and time of your hearing conference you **must:**
1. Call the toll free hearing phone number listed above.
2. When asked for the Access Code, enter the code listed above followed by the "#" key.
3. If you have any trouble connecting to the hearing or are on hold more than ten (10) minutes past the hearing start time, call the Office of Administrative Hearings immediately at (503) 947-1744.
4. If you fail to call within fifteen (15) minutes after the time set for the hearing, you will be held in default and your request for hearing may be dismissed or the hearing may proceed without you.
5. ONLY call the hearing phone number to attend your hearing.

Your case has been assigned to **Administrative Law Judge Jennifer H. Rackstraw** an employee of the Office of Administrative Hearings. The Office of Administrative Hearings is an impartial tribunal, and is independent of the agency proposing the action.

Unless otherwise notified, all correspondence, inquiries, exhibits and filings should be sent to the Administrative Law Judge.

OAR 137-003-0520 requires a copy of any correspondence, exhibits or other filings to be provided to all parties and the agency at the same time they are provided to the administrative law judge. **Please use the OAH case number above on all correspondence and filings.**

A request for reset of the hearing must be submitted in writing prior to the hearing. A postponement request will only be granted on a showing of good cause and with the approval of the administrative law judge.

If you are hearing impaired, need a language interpreter or require another type of accommodation to participate in or attend the hearing, immediately notify the Hearing Coordinator as listed below or TDD at 1-800-735-1232 to make the appropriate arrangements. The Office of Administrative Hearings can arrange for an interpreter at the hearing.

Interpreters must be certified or qualified in order to participate in a contested case hearing and may not have a conflict of interest with the hearing participants.

You are required to notify the Office of Administrative Hearings by immediately contacting the Hearing Coordinator, as listed below, if you change your address or telephone number prior to a decision in this matter.

Ryan K Clark, Hearing Coordinator
Office of Administrative Hearings
PO Box 14020
Salem, OR 97309-4020
(503) 947-1744 - FAX: (503) 947-1923
Email: OED_OAH_Referral@oregon.gov

CERTIFICATE OF MAILING

On August 20, 2018**,** I mailed the foregoing NOTICE OF TELEPHONE HEARING in OAH Case No. 2018-ABC-01716**.**

By: First Class Mail

Mark Bartholomew
Hornecker Cowling LLP
14 N. Central Avenue, Suite 104
Medford OR 97501

By: Electronic Mail

Susan Elworth, Agency Representative
Department of Environmental Quality
700 NE Multnomah Street, Suite 600
Portland OR 97232

Ryan K Clark
Hearing Coordinator

DEPARTMENT OF ENVIRONMENTAL QUALITY HEARINGS

IMPORTANT INFORMATION FOR PREPARING FOR YOUR HEARING

NOTICE OF CONTESTED CASE RIGHTS AND PROCEDURES

Under ORS 183.413(2), you must be informed of the following:

1. Law that applies. The hearing is a contested case and it will be conducted under ORS Chapter 183 and Oregon Administrative Rules of the Department of Environmental Quality, Chapters 137 and 340.

2. Rights to an attorney. You may represent yourself at the hearing, or be represented by an attorney or an authorized representative, such as a partner, officer, or an employee. If you are a company, corporation, organization or association, you must be represented by an attorney or an authorized representative. Prior to appearing on your behalf, an authorized representative must provide a written statement of authorization. If you choose to represent yourself, but decide during the hearing that an attorney is necessary, you may request a recess. About half of the parties are not represented by an attorney. DEQ will be represented by an Assistant Attorney General or an Environmental Law Specialist.

3. Administrative law judge. The person presiding at the hearing is known as the administrative law judge. The administrative law judge is an employee of the Office of Administrative Hearings under contract with the Environmental Quality Commission. The administrative law judge is not an employee, officer or representative of the agency.

4. Appearance at hearing. If you withdraw your request for a hearing, notify either DEQ or the administrative law judge that you will not appear at the hearing, or fail to appear at the hearing, a final default order will be issued. This order will be issued only upon a prima facie case based on DEQ's file. No hearing will be conducted.

5. Address change or change of representative. It is your responsibility to notify DEQ and the administrative law judge of any change in your address or a withdrawal or change of your representative.

6. Interpreters. If you have a disability or do not speak English, the administrative law judge will arrange for an interpreter. DEQ will pay for the interpreter if (1) you require the interpreter due to a disability or (2) you file with the administrative law judge a written statement under oath that you are unable to speak English and you are unable to obtain an interpreter yourself. You must provide notice of your need for an interpreter at least 14 days before the hearing.

7. Witnesses. All witnesses will be under oath or affirmation to tell the truth. All parties and the administrative law judge will have the opportunity to ask questions of all witnesses. DEQ or the administrative law judge will issue subpoenas for witnesses on your behalf if you show that their testimony is relevant to the case and is reasonably needed to establish your position. You are not required to issue subpoenas for appearance of your own witnesses. If you are represented by an attorney, your attorney may issue subpoenas. Payment of witness fees and mileage is your responsibility.

8. Order of evidence. A hearing is similar to a court trial but less formal. The purpose of the hearing is to determine the facts and whether DEQ's action is appropriate. In most cases, DEQ

will offer its evidence first in support of its action. You will then have an opportunity to present evidence to oppose DEQ's evidence. Finally, DEQ and you will have an opportunity to rebut any evidence.

9. Burden of presenting evidence. The party who proposes a fact or position has the burden of proving that fact or position. You should be prepared to present evidence at the hearing which will support your position. You may present physical, oral or written evidence, as well as your own testimony.

10. Admissible evidence. Only relevant evidence of a type relied upon by reasonably prudent persons in the conduct of their serious affairs will be considered. Hearsay evidence is not automatically excluded. Rather, the fact that it is hearsay generally affects how much the Commission will rely on it in reaching a decision.

There are four kinds of evidence:

a. Knowledge of DEQ and the administrative law judge. DEQ or the administrative law judge may take "official notice" of conclusions developed as a result of its knowledge in its specialized field. This includes notice of general, technical or scientific facts. You will be informed should DEQ or the administrative law judge take "official notice" of any fact and you will be given an opportunity to contest any such facts.

b. Testimony of witnesses. Testimony of witnesses, including you, who have knowledge of facts may be received in evidence.

c. Writings. Written documents including letters, maps, diagrams and other written materials may be received in evidence.

d. Experiments, demonstrations and similar means used to prove a fact. The results of experiments and demonstrations may be received in evidence if they are reliable.

11. Objections to evidence. Objections to the consideration of evidence must be made at the time the evidence is offered. Objections are generally made on one of the following grounds:

a. The evidence is unreliable;

b. The evidence is irrelevant or immaterial and has no tendency to prove or disprove any issue involved in the case;

c. The evidence is unduly repetitious and duplicates evidence already received.

12. Continuances. There are normally no continuances granted at the end of the hearing for you to present additional testimony or other evidence. Please make sure you have all your evidence ready for the hearing. However, if you can show that the record should remain open for additional evidence, the administrative law judge may grant you additional time to submit such evidence.

13. Record. A record will be made of the entire proceeding to preserve the testimony and other evidence for appeal. This will be done by digital recording. This recording and any exhibits received in the record will be the whole record of the hearing and the only evidence considered by the administrative law judge. A copy of the recording is available upon payment of a minimal

amount, as established by DEQ. A transcript of the record will not normally be prepared, unless there is an appeal to the Court of Appeals.

14. Proposed and Final Order. The administrative law judge has the authority to issue a proposed order based on the evidence at the hearing. The proposed order will become the final order of the Environmental Quality Commission if you do not petition the Commission for review within 30 days of service of the order. The date of service is the date the order is mailed to you, not the date that you receive it. The Department must receive your petition seeking review within 30 days. *See* OAR 340-011-0132.

15. Appeal. If you are not satisfied with the decision of the Commission, you have 60 days from the date of service of the order, to appeal this decision to the Court of Appeals. *See* ORS 183.480 *et seq.*

Notice of Hearing- Notice to Members of the Armed Forces

A member of the Armed Forces (Army, Navy, Air Force, Marines, Coast Guard and National Guard) may be subject to the protection of the Servicemembers' Civil Relief Act (SCRA) 50 USC §§ 3901 et seq. as amended. The SCRA provides certain protections to service members and their dependents, if specific conditions are met. If you qualify under the SCRA, you may be entitled to have the matter pending before the Office of Administrative Hearings (OAH) delayed (stayed) due to your military service. The SCRA also provides other protections. Service members may contact the Oregon State Bar toll-free inside Oregon at (800)452-8260 or (503) 620-0222 or the Oregon Military Department toll-free at (800)452-7500 for more information. The United States Armed Forces Legal Assistance Legal Services Locator website may be accessed at legalassistance.law.af.mil.

In order to qualify for the protections of the SCRA, a service member must show that he/she is: (1) an active duty service member; or (2) a member of the reserve component activated to serve in active federal service; or (3) a National Guard service member under Title 10 of the US Code; or (4) a National Guard service member under Title 32 of the US Code called to active duty for 30 days or more pursuant to a contingency mission specified by the President or Secretary of Defense or serving on Annual Training orders. Some provisions of the SCRA also cover dependents of qualifying service members who rely on the service member for at least half of their income. The SCRA continues to provide some protections for a short period of time after service is concluded. Additional protections may be available under ORS 399.238 if you are a member of the Oregon National Guard. It is important that you be aware of your dates of service at the time you contact the OAH and at hearing.

If you think you may qualify under one of the above criteria it is important that you notify the OAH, and the agency that initiated the action, prior to your hearing date so that steps can be taken to ensure that your rights under the SCRA are followed. You may also contact your Judge Advocate General at the installation where or near where you serve or your chain of command for more information regarding your rights under the SCRA.

Notice to Veterans of the Armed Forces

In 2011, the Oregon Legislature enacted Senate Bill 241 (SB 241). The purpose of SB 241 is for state agencies to assist in informing veterans of access to benefits. The Oregon Department of Veteran's Affairs has published a 40-page comprehensive benefit magazine containing state and federal veteran benefits information including: the disability claims process; contact information for veterans services offices; how to access health care; veteran transportation; veteran trauma education; long term care options; dependent and survivor benefits; burial benefits; education options; home loan information; taxation deferral and exemptions; employment resources and preferences; auto adaptive and clothing allowances; IDs, DMV license plates; medals and records; homelessness resources, veterans court's information and recreation benefits and memorials. You can read the entire magazine online at:
http://www.oregon.gov/odva/Documents/Veterans%20Benefits%20Magazine%202012%20sm.pdf

You can obtain other information regarding your benefits at:
http://www.oregon.gov/ODVA/pages/index.aspx

Comunicado de Audiencia – Comunicación a Miembros de las Fuerzas Armadas

Los miembros de las Fuerzas Armadas (Ejército, Marina, Aeronáutica, Infantería de Marina, Guardia Costera y Guardia Nacional) podrán aspirar a la protección acordada por "Servicemembers' Civil Relief Act" (SCRA) (Ley de Asistencia Civil a miembros del Servicio) 50 USC §§ 3901 y normas relacionadas, conforme a enmienda. El SCRA otorga protecciones a miembros del servicio y a las personas a su cargo que reúnan requisitos específicos. Quienes reúnan los requisitos del SCRA podrán someter su pedido ante el "Office of Administrative Hearings" (OAH) (Oficina de Audiencias Administrativas) solicitando su diferimiento por causa de servicio militar. El SCRA suministra, además, otras protecciones. Para más informaciones, los miembros del servicio podrán contactar el "Oregon State Bar" desde el territorio del Estado a través de su línea gratuita, llamando al (800) 452-8260 / (503) 620-0222 ó al Oregon Militay Department, llamando al (800) 452-7500. Podrá accederse al "Legal Assistance Legal Services Locator" de las Fuerzas Armadas de los EEUU a través de: legalassistance.law.af.mil

Para aspirar a las protecciones del SCRA, el miembro del servicio deberá presentar evidencias de ser: miembro activo del servicio, o (2) miembro del módulo de reserva activado para prestar servicios en el servicio federal activo; o (3) miembro del servicio de la Guardia Nacional, de conformidad al Title (Título) 10 del US Code (Código de los EEUU) o (4) miembro del servicio de la Guardia Nacional de acuerdo al Title (Título) 32 del US Code (Código de los EEUU) llamado para cumplir servicios activos durante 30 días o más en cumplimiento de misiones eventuales especificadas por el Presidente o la Secretaría de Defensa o en servicio de disposiciones de Entrenamiento Anual. Algunas de las provisiones del SCRA cubren también a las personas a cargo de los miembros del servicio que tengan derecho y que representen por lo menos la mitad de su ingreso. El SCRA continuará proporcionando algunas protecciones por un breve periodo de tiempo una vez que el servicio haya sido completado. Los miembros del "Oregon National Guard" podrán contar con protecciones adicionales, de conformidad con ORS 399.238. Es importante que conozca las fechas de servicios, tanto en el momento en que contacte el OAH, como en el momento de la audiencia.

De considerarse encuadrado dentro de los requisitos mencionados, es importante que, con anterioridad a la fecha de audiencia, notifique al OAH y a la agencia en la que inició la acción, de manera de poder tomarse los recaudos necesarios para asegurar que los derechos otorgados por SCRA sean tenidos en consideración. En relación a los derechos mencionados en SCRA y, para mayor información, podrá también contactar al "Judge Advocate General" de la sede en la que presta servicios, a una cercana a ésta, o a su cadena de comandos.

Aviso a los veteranos de las fuerzas armadas

En 2011, el Cuerpo Legislativo de Oregon promulgó el Proyecto de Ley del Senado número 241 (SB 241). El propósito del SB 241 es que las agencias estatales ayuden a informar a los veteranos sobre el acceso a beneficios. El Departamento de Asuntos para Veteranos de Oregon ha publicado una completa revista de 40 páginas sobre los beneficios, la cual contiene información sobre beneficios estatales y federales para veteranos incluyendo: el proceso de reclamación por discapacidad; información de contacto de las oficinas de servicios para veteranos; cómo obtener acceso a atención médica; transporte para veteranos; educación sobre trauma para veteranos; opciones de atención médica a largo plazo; beneficios para dependientes y sobrevivientes; beneficios funerarios; opciones educativas; información de préstamos para vivienda; aplazamiento de impuestos y exenciones; recursos y preferencias laborales; adaptaciones para vehículos y asignaciones para ropa; identificaciones, placas DMV; medallas y registros; recursos de vivienda, información legal para veteranos y beneficios recreativos y de monumentos. Puede leer la revista completa en línea en:

http://www.oregon.gov/odva/Documents/Veterans%20Benefits%20Magazine%202012%20sm.pdf Usted puede obtener más información sobre sus beneficios en: http://www.oregon.gov/ODVA/pages/index.aspx

Oregon
Kate Brown, Governor

Office of Administrative Hearings
PO Box 14020
Salem OR 97309-4020
(503) 947-1515
FAX (503) 947-1923
TYY: 1-800-735-1232

This concerns your hearing. If you do not understand the enclosed important document, please IMMEDIATELY contact the Office of Administrative Hearings at 1-800-311-3394.

Spanish:
Esto concierne a su audiencia. Si no entiende el importante documento adjunto, por favor comuníquese INMEDIATAMENTE con la Oficina de Audiencias Administrativas (Office of Administrative Hearings) llamando al 1-800-311-3394.

Vietnamese:
Tài liệu này liên quan đến phiên điều giải của quý vị. Nếu quý vị không hiểu rõ hồ sơ quan trọng đính kèm, xin vui lòng liên lạc NGAY với Văn Phòng Điều Giải Hành Chánh (Office of Administrative Hearings) số 1-800-311-3394.

Russian:
Этот документ имеет отношение к Вашему слушанию и является важным. Если Вы не понимаете приложенный документ, пожалуйста, НЕМЕДЛЕННО свяжитесь с Управлением административных слушаний (Office of Administrative Hearings) по телефону 1-800-311-3394.

Chinese:
隨附重要文件，相關您的聽證一事。如果您不理解這些文件的內容，請立即與行政聽證處（Office of Administrative Hearings）聯絡，電話號碼是1-800-311-3394.

Korean:
이것은 귀하의 심의회에 관계되는 서류입니다. 동봉한 주요 서류를 이해하지 못하시면 즉시 심의회 행정실(Office of Administrative Hearings, 1-800-311-3394)로 연락하시기 바랍니다.

Romanian
Aceasta se referă la audienţa dumneavoastră. Dacă nu înţelegeţi documentul important inclus, vă rugăm să contactaţi IMEDIAT Biroul de Audienţe Administrative (Office of Administrative Hearings) la 1-800-311-3394.

Laotian:
ນີ້ ແມ່ນກ່ ຽວ ກັ ບ ຂ ໍ ້ ມ ູ ນ ສ ໍ າ ຄ ັ ນ ຂ ອ ງ ທ ່ ານ. ຖ ້ າ ທ ່ ານ ບ ໍ ່ ເ ຂ ົ ้ າ ໃ ຈ ເ ອ ກ ะ ສ ານ ສ ໍ າ ຄ ັ ນ ທ ີ ່ ແ ນ ບ ມ າ ພ ้ ອ ມ ນ ີ ้ , ກ ะ ລ ุ ນ າ ต ิ ด ต ่ ໍ ' ก ั บ ห ้ ອ ง ก า ร บ ่ ล ิ ห า ร ก า ร อ ุ ท ธ ร ณ ์ ท ั น ท ี (Office of Administrative Hearing) ต า ม เ ล ข ท ี 1-800-311-3394

Arabic:
(office of ة ي ر ا د ا ت ا س ج ل ا ب ت خ ا ل ا ب ح ا ل ي ف ل ا ض ا ت ك و ج ر ن ة ق ف ر ل ا ق ي ق ل ا ك ف م ه ل ي ع ر ذ ع ت إ ذ ا . ك ل د د ح ي ت ل ا ة ي ر ا د إ ل ا ة س ل ج ل ا ب ا ع ش إ ل ا ذ ه ق ل ع ت ي Administrative Hearings) ل ا ل ص ت ا ل ا ب ى ج ر ي ف ا ذ ه ، 1-800-311-3394.

Cambodian:
រឿងក្តីនេះស្តីពីបញ្ហាសវនាការតវ៉ារបស់អ្នក ។ បើអ្នកមិនយល់ពីឯកសារសំខាន់ដែលគេផ្ញើមកជាមួយទេ [illegible]
មន្ត្រីនៅការិយាល័យសវនាការផ្នែករដ្ឋបាល (Office of Administrative Hearings) ភ្លាមៗ តាមលេខ 1-800-311-3394

BEFORE THE OFFICE OF ADMINISTRATIVE HEARINGS
STATE OF OREGON
for the
ENVIRONMENTAL QUALITY COMMISSION

IN THE MATTER OF:	)	**NOTICE OF PREHEARING CONFERENCE**
	)	
GENERAL PROPERTY GROUP LLC	)	OAH Reference No.: 2018-ABC-01716
	)	Agency Case No.: LQ/HW-WR-2016-179

PLEASE TAKE NOTICE that a prehearing conference has been scheduled in the above matter before the Office of Administrative Hearings.

Prehearing Date: **August 16, 2018** **Prehearing Time:** **1:00 PM**

Location: **By Telephone: Prehearing Phone Numbers and Access Code:**
- Toll Free – 1-877-622-4041
- ACCESS CODE – 7101716

IMPORTANT PREHEARING PHONE INSTRUCTIONS

At the date and time of your prehearing conference you **must:**
1. Call the toll free prehearing phone number listed above.
2. When asked for the Access Code, enter the code listed above followed by the "#" key.
3. If you have any trouble connecting to the prehearing or are on hold more than five (5) minutes past the prehearing start time, call the Office of Administrative Hearings immediately at (503) 947-1744.
4. If you fail to call within **five (5) minutes** after the time set for the prehearing conference, the prehearing conference may proceed without you.
5. ONLY call the prehearing phone number to attend your prehearing.

The following may be addressed at the prehearing conference: identification of issues, motions, preliminary rulings, documentary and testimonial evidence (if known), exchange of witness lists (if known), procedural conduct of the hearing, date, time and location of the hearing, and other matters relating to the hearing. Failure to participate in the prehearing will not preclude the Administrative Law Judge from making decisions on issues raised during the prehearing. OAR 137-003-0575.

Your case has been assigned to **Administrative Law Judge Jennifer H. Rackstraw** an employee of the Office of Administrative Hearings. The Office of Administrative Hearings is an impartial tribunal, and is independent of the agency proposing the action.

All correspondence, inquiries, exhibits and filings should be sent directly to the Administrative Law Judge. The Administrative Law Judge will advise you as to the process for filing documents.

OAR 137-003-0520 requires a copy of any correspondence, exhibits or other filings to be provided to all parties and the agency at the same time they are provided to the administrative law judge. **Please use the OAH case number above on all correspondence and filings.**

A request for reset of the hearing must be submitted in writing prior to the hearing. A postponement request will only be granted on a showing of good cause and with the approval of the administrative law judge.

If you are hearing impaired, need a language interpreter or require another type of accommodation to participate in or attend the hearing, immediately notify the Hearing Coordinator as listed below or TDD at 1-800-735-1232 to make the appropriate arrangements. The Office of Administrative Hearings can arrange for an interpreter at the hearing. Interpreters must be certified or qualified in order to participate in a contested case hearing and may not have a conflict of interest with the hearing participants.

You are required to notify the Office of Administrative Hearings by immediately contacting the Hearing Coordinator, as listed below, if you change your address or telephone number prior to a decision in this matter.

Ryan K Clark, Hearing Coordinator
Office of Administrative Hearings
PO Box 14020
Salem, OR 97309-4020
(503) 947-1744 - FAX: (503) 947-1923
Email: OED_OAH_Referral@oregon.gov

CERTIFICATE OF MAILING

On July 11, 2018**,** I mailed the foregoing NOTICE OF PREHEARING CONFERENCE in OAH Case No. 2018-ABC-01716**.**

By: First Class Mail

Mark Bartholomew
Hornecker Cowling LLP
14 N. Central Avenue, Suite 104
Medford OR 97501

By: Electronic Mail

Susan Elworth, Agency Representative
DEQ
700 NE Multnomah Street, Suite 600
Portland OR 97232

Ryan K Clark
Hearing Coordinator

DEPARTMENT OF ENVIRONMENTAL QUALITY HEARINGS

IMPORTANT INFORMATION FOR PREPARING FOR YOUR HEARING

NOTICE OF CONTESTED CASE RIGHTS AND PROCEDURES

Under ORS 183.413(2), you must be informed of the following:

1. Law that applies. The hearing is a contested case and it will be conducted under ORS Chapter 183 and Oregon Administrative Rules of the Department of Environmental Quality, Chapters 137 and 340.

2. Rights to an attorney. You may represent yourself at the hearing, or be represented by an attorney or an authorized representative, such as a partner, officer, or an employee. If you are a company, corporation, organization or association, you must be represented by an attorney or an authorized representative. Prior to appearing on your behalf, an authorized representative must provide a written statement of authorization. If you choose to represent yourself, but decide during the hearing that an attorney is necessary, you may request a recess. About half of the parties are not represented by an attorney. DEQ will be represented by an Assistant Attorney General or an Environmental Law Specialist.

3. Administrative law judge. The person presiding at the hearing is known as the administrative law judge. The administrative law judge is an employee of the Office of Administrative Hearings under contract with the Environmental Quality Commission. The administrative law judge is not an employee, officer or representative of the agency.

4. Appearance at hearing. If you withdraw your request for a hearing, notify either DEQ or the administrative law judge that you will not appear at the hearing, or fail to appear at the hearing, a final default order will be issued. This order will be issued only upon a prima facie case based on DEQ's file. No hearing will be conducted.

5. Address change or change of representative. It is your responsibility to notify DEQ and the administrative law judge of any change in your address or a withdrawal or change of your representative.

6. Interpreters. If you have a disability or do not speak English, the administrative law judge will arrange for an interpreter. DEQ will pay for the interpreter if (1) you require the interpreter due to a disability or (2) you file with the administrative law judge a written statement under oath that you are unable to speak English and you are unable to obtain an interpreter yourself. You must provide notice of your need for an interpreter at least 14 days before the hearing.

7. Witnesses. All witnesses will be under oath or affirmation to tell the truth. All parties and the administrative law judge will have the opportunity to ask questions of all witnesses. DEQ or the administrative law judge will issue subpoenas for witnesses on your behalf if you show that their testimony is relevant to the case and is reasonably needed to establish your position. You are not required to issue subpoenas for appearance of your own witnesses. If you are represented by an attorney, your attorney may issue subpoenas. Payment of witness fees and mileage is your responsibility.

8. Order of evidence. A hearing is similar to a court trial but less formal. The purpose of the hearing is to determine the facts and whether DEQ's action is appropriate. In most cases, DEQ

will offer its evidence first in support of its action. You will then have an opportunity to present evidence to oppose DEQ's evidence. Finally, DEQ and you will have an opportunity to rebut any evidence.

9. Burden of presenting evidence. The party who proposes a fact or position has the burden of proving that fact or position. You should be prepared to present evidence at the hearing which will support your position. You may present physical, oral or written evidence, as well as your own testimony.

10. Admissible evidence. Only relevant evidence of a type relied upon by reasonably prudent persons in the conduct of their serious affairs will be considered. Hearsay evidence is not automatically excluded. Rather, the fact that it is hearsay generally affects how much the Commission will rely on it in reaching a decision.

There are four kinds of evidence:

a. Knowledge of DEQ and the administrative law judge. DEQ or the administrative law judge may take "official notice" of conclusions developed as a result of its knowledge in its specialized field. This includes notice of general, technical or scientific facts. You will be informed should DEQ or the administrative law judge take "official notice" of any fact and you will be given an opportunity to contest any such facts.

b. Testimony of witnesses. Testimony of witnesses, including you, who have knowledge of facts may be received in evidence.

c. Writings. Written documents including letters, maps, diagrams and other written materials may be received in evidence.

d. Experiments, demonstrations and similar means used to prove a fact. The results of experiments and demonstrations may be received in evidence if they are reliable.

11. Objections to evidence. Objections to the consideration of evidence must be made at the time the evidence is offered. Objections are generally made on one of the following grounds:

a. The evidence is unreliable;

b. The evidence is irrelevant or immaterial and has no tendency to prove or disprove any issue involved in the case;

c. The evidence is unduly repetitious and duplicates evidence already received.

12. Continuances. There are normally no continuances granted at the end of the hearing for you to present additional testimony or other evidence. Please make sure you have all your evidence ready for the hearing. However, if you can show that the record should remain open for additional evidence, the administrative law judge may grant you additional time to submit such evidence.

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You can obtain other information regarding your benefits at:
http://www.oregon.gov/ODVA/pages/index.aspx

Comunicado de Audiencia – Comunicación a Miembros de las Fuerzas Armadas

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De considerarse encuadrado dentro de los requisitos mencionados, es importante que, con anterioridad a la fecha de audiencia, notifique al OAH y a la agencia en la que inició la acción, de manera de poder tomarse los recaudos necesarios para asegurar que los derechos otorgados por SCRA sean tenidos en consideración. En relación a los derechos mencionados en SCRA y, para mayor información, podrá también contactar al "Judge Advocate General" de la sede en la que presta servicios, a una cercana a ésta, o a su cadena de comandos.

Aviso a los veteranos de las fuerzas armadas

En 2011, el Cuerpo Legislativo de Oregon promulgó el Proyecto de Ley del Senado número 241 (SB 241). El propósito del SB 241 es que las agencias estatales ayuden a informar a los veteranos sobre el acceso a beneficios. El Departamento de Asuntos para Veteranos de Oregon ha publicado una completa revista de 40 páginas sobre los beneficios, la cual contiene información sobre beneficios estatales y federales para veteranos incluyendo: el proceso de reclamación por discapacidad; información de contacto de las oficinas de servicios para veteranos; cómo obtener acceso a atención médica; transporte para veteranos; educación sobre trauma para veteranos; opciones de atención médica a largo plazo; beneficios para dependientes y sobrevivientes; beneficios funerarios; opciones educativas; información de préstamos para vivienda; aplazamiento de impuestos y exenciones; recursos y preferencias laborales; adaptaciones para vehículos y asignaciones para ropa; identificaciones, placas DMV; medallas y registros; recursos de vivienda, información legal para veteranos y beneficios recreativos y de monumentos. Puede leer la revista completa en línea en: http://www.oregon.gov/odva/Documents/Veterans%20Benefits%20Magazine%202012%20sm.pdf
Usted puede obtener más información sobre sus beneficios en: http://www.oregon.gov/ODVA/pages/index.aspx

Oregon

Kate Brown, Governor

Office of Administrative Hearings
PO Box 14020
Salem OR 97309-4020
(503) 947-1515
FAX (503) 947-1923
TYY: 1-800-735-1232

This concerns your hearing. If you do not understand the enclosed important document, please IMMEDIATELY contact the Office of Administrative Hearings at 1-800-311-3394.

Spanish:
Esto concierne a su audiencia. Si no entiende el importante documento adjunto, por favor comuníquese INMEDIATAMENTE con la Oficina de Audiencias Administrativas (Office of Administrative Hearings) llamando al 1-800-311-3394.

Vietnamese:
Tài liệu này liên quan đến phiên điều giải của quý vị. Nếu quý vị không hiểu rõ hồ sơ quan trọng đính kèm, xin vui lòng liên lạc NGAY với Văn Phòng Điều Giải Hành Chánh (Office of Administrative Hearings) số 1-800-311-3394.

Russian:
Этот документ имеет отношение к Вашему слушанию и является важным. Если Вы не понимаете приложенный документ, пожалуйста, НЕМЕДЛЕННО свяжитесь с Управлением административных слушаний (Office of Administrative Hearings) по телефону 1-800-311-3394.

Chinese:
隨附重要文件，相關您的聽證一事。如果您不理解這些文件的內容，請立即與行政聽證處
（Office of Administrative Hearings）聯絡，電話號碼是1-800-311-3394.

Korean:
이것은 귀하의 심의회에 관계되는 서류입니다. 동봉한 주요 서류를 이해하지 못하시면
즉시 심의회 행정실(Office of Administrative Hearings, 1-800-311-3394)
로 연락하시기 바랍니다.

Romanian
Aceasta se referă la audienţa dumneavoastră. Dacă nu înţelegeţi documentul important inclus, vă rugăm să contactaţi IMEDIAT Biroul de Audienţe Administrative (Office of Administrative Hearings) la 1-800-311-3394.

Laotian:
ນ ້ ຼ ນ ່ ນ ກ ິ ່ ວ ກ ັ ບ ຮ ຸ ທ ຮ ນ ຂ ຮ ງ ທ ່ ານ. ຖ ້ າ ທ ່ ານ ບ ໍ ່ ເ ຂ ົ ້ າ ໃ ຈ ເ ອ ກ ະ ສ ານ ສ ຳ ຄ ັ ນ ທ ີ ່ ນ ຼ ນ ມ ານ ພ ້ ອ ມ ນ ີ ້ ,
ກ ະ ລ ຸ ນ າ ຕ ິ ດ ຕ ໍ ່ ກ ັ ບ ຫ ້ ອ ງ ກ ານ ບ ໍ ລ ິ ຫ ານ ກ ານ ຮ ຸ ທ ຮ ນ ທ ັ ນ ທ ີ (Office of Administrative Hearing) ຕ າ ມ ເ ລ ກ ໂ ທ
1-800-311-3394

Arabic:
(office of ة ي ار د ا ا ت ا س ل ج ل ا ب ت ك ل ا ح ا ل ب ي ف ا ل ا ت ا ك و ج ر ن ق ة ف ق ر ل ل ظ ا ق ي ل ا م ف ئ ي ع ل ذ ر ع ت إ ذ ل ك . ك ل د د ت ح ي ة ي ر ا د إ ل ا ة س ل ج ل ا ب ا ع إ ل ا ذ ه ق ل ع ت ي
.1-800-311-3394 ي ل ا ت ل ا ق ل ر ل ا Administrative Hearings)

Cambodian:
ឯកសារនេះស្តីពីបញ្ហាសវនាការតម្រាវបស់អ្នក ។ បើអ្នកមិនយល់ពីឯកសារសំខាន់ដែលគេភ្ជាប់មកជាមួយទេ សូមទាក់ទងមកមន្ត្រីនៅការិយាល័យសវនាការផ្នែករដ្ឋបាល (Office of Administrative Hearings) ភ្លាមៗ តាមលេខ 1-800-311-3394

Oregon

Kate Brown, Governor

Department of Environmental Quality
Office of Compliance and Enforcement
700 NE Multnomah Street, Suite 600
Portland, OR 97232
(503) 229-5382
FAX (503) 229-5787
TTY 711

September 6, 2018

CERTIFIED MAIL 7016 0750 0000 3470 2695

Mark S. Bartholomew
Hornecker Cowling LLP
14 N. Central Avenue, Suite 104
Medford OR 97501

Re: General Property Group, LLC
Amended Notice of Civil Penalty Assessment and Order
Case No. LQ/HW-WR-2016-179

Mr. Bartholomew:

On July 12, 2017, DEQ issued to your client a Notice of Civil Penalty Assessment and Order (Notice) for alleged violations at a property it owns at 702 S. Grape Street in Medford. The Notice assessed a civil penalty in the amount of $29,417.

One of the alleged violations was for failing to comply with a Remedial Action Order issued by DEQ in August 2016. DEQ assessed a $13,200 penalty for that violation for which DEQ has decided to withdraw the penalty. Attached is an Amended Notice of Civil Penalty Assessment and Order which supersedes the prior Notice and assesses a civil penalty of $16,217.

Because your client has already submitted a written request for hearing and because the matter has already been scheduled for hearing, you need not submit a new request for hearing.

If you have any questions, please contact Susan Elworth at 503-229-5152.

Sincerely,

Susan Wheeler for
Kieran O'Donnell
Manager, Office of Compliance and Enforcement

Enclosures
cc: Dan Lobato, WR, Eugene office, DEQ
ALJ Jennifer H. Rackstraw, OAH, 7995 SW Mohawk Street, Tualatin OR 97062

BEFORE THE ENVIRONMENTAL QUALITY COMMISSION

OF THE STATE OF OREGON

IN THE MATTER OF: GENERAL PROPERTY GROUP, LLC, Respondent.	))))	AMENDED NOTICE OF CIVIL PENALTY ASSESSMENT AND ORDER OAH CASE NO. 2018-ABC-01716 DEQ CASE NO. LQ/HW-WR-2016-179

I. AUTHORITY

The Department of Environmental Quality (DEQ) issues this Notice of Civil Penalty Assessment and Order (Notice) pursuant to Oregon Revised Statutes (ORS) 468.100, ORS 468.126 through 468.140, ORS 466.990, ORS Chapter 183 and Oregon Administrative Rules (OAR) Chapter 340, Divisions 011, 012, 100 and 102.

II. FINDINGS OF FACT

1. On November 3, 2015, Respondent purchased a property located at 702 S. Grape Street in Medford, Oregon (the property).

2. Seller's Counter Offer No. 1 to Sale Agreement #PC93015 between Respondent and the prior owner, dated October 8, 2015, states "Seller is aware of the following issues: Line 238: there are hazardous substances."

3. From the 1960's until sometime prior to when Respondent purchased the property, the property was used as a metal plating facility.

4. On August 9, 2016, DEQ staff inspected the property and observed various chemicals which are typically used in the metal plating process stored in a plating room, storage room, and outside the building.

5. There are two drains in the concrete located outside of the building which convey liquid into underground sumps. During the August 2016 inspection, there was liquid and sludge in these sumps.

6. During the August 2016 inspection, a container of chromic oxide was leaking and had spilled onto the floor in the storage room.

7. None of the substances listed in paragraph 4 above had been used since before November 2015.

8. On August 30, 2016, DEQ issued a Remedial Action Order (RAO) to Respondent which required Respondent to:

a. Within 21 days of service of the RAO, submit a written plan (the Plan) to DEQ for characterizing, transporting and disposing all of the items in paragraph 4 above along with the contents of the sumps located outside the building; and

b. Within 30 days of DEQ's approval of the Plan, complete the work in the approved Plan; and

c. Within 30 days of completing the work in the Plan, submit to DEQ all hazardous waste manifests documenting the removal and transport of the hazardous wastes to a permitted facility and documentation of any other items disposed of at other locations.

9. Service of the RAO was perfected on Respondent on September 16, 2016.

10. On October 6, 2016, DEQ extended the deadline for submitting the Plan until October 28, 2016.

11. On October 27, 2016, DEQ received and approved the Plan.

12. On November 4, 2016, Respondent requested an extension to complete the work required under the Plan.

13. On November 8, 2016, DEQ approved an extension to complete the work until December 9, 2016.

14. On December 5, 2016, Respondent requested an extension to complete the work required under the Plan until the end of January.

15. DEQ did not approve Respondent's December 5, 2016 request.

16. On March 24, 2017, Respondent submitted to DEQ copies of manifests showing that waste was disposed of at a permitted hazardous waste disposal facility as follows:

Manifest #	Waste Description	EPA Hazardous Waste No(s).	Quantity	Date received by TSD
009996389	Waste carbon	D001 (40 CFR 261.21)	62 lbs.	1/31/2017
	Ammonium persulfate	D001 (40 CFR 261.21)	3 lbs.	
	Sulfuric acid	D002, D004, D005, D006, D007, D008 (40 CFR 261.22 & 261.24)	158 lbs.	
	Ammonium/sodium hydroxide	D002, D004, D005, D006, D007, D008 (40 CFR 261.22 and 261.24)	70 lbs.	
010466150	Cadmium oxide powder	D006 (40 CFR 261.24)	52 lbs.	3/1/2017
	Chromium with lead	D002, D004, D007, D008, F007 (40 CFR 261.22, 261.24 and 261.31)	5280 lbs.	
	Chromium	D002, D007, F007 (40 CFR 261.22, 261.24 and 261.31)	4920 lbs.	
	Chromium with silver	D002, D004, D006, D007, D011, F007 (40 CFR 261.22, 261.24 and 261.31)	12500 lbs.	
010466155	Hydrochloric acid solution	D002 (40 CFR 261.22)	755 lbs.	3/2/2017
010466158	Acidic corrosive liquid	D002 (40 CFR 261.22)	32 lbs.	3/2/2017
	Basic corrosive liquid	D002 (40 CFR 261.22)	96 lbs.	
010466151	Oxidizing liquid	D001, D002, D007 (40 CFR 261.21, 261.22 and 261.24)	30 lbs.	3/9/2017
010466157	Cadmium and chromium	D006, D007, F006 (40 CFR 261.24 and 261.31)	121 lbs.	3/6/2017
010466152	Fluorescent light tubes	D009 (40 CFR 261.24)	32 lbs.	3/10/2017

17. On October 20, 2016, Respondent registered with DEQ as a large quantity generator under site identification no. ORD987201480 for the waste generated at the property.

18. Neither Respondent nor any prior owner of the property had ever been issued a permit for a hazardous waste treatment, storage or disposal facility for the property.

19. On November 28, 2017, Respondent submitted to DEQ documentation of the disposal of the liquid and sludge described in paragraph 5 above and the solid (non-hazardous) waste listed in paragraph 4 above.

20. In February 2018, DEQ received from Respondent a report describing the hazardous waste described in paragraph 16 above along with the appropriate fees, as required by OAR 340-102-0041(2).

III. CONCLUSIONS

1. Respondent violated ORS 466.095(1)(a) by storing hazardous waste for more than 90 days without a permit. Specifically, the wastes listed in Section II, paragraph 16 were stored by Respondent from November 2015 until disposed of in 2017. As a large quantity generator of hazardous waste who does not have a hazardous waste storage or disposal permit, Respondent may only store hazardous waste for 90 days, pursuant to 40 CFR 262.34(a), adopted pursuant to OAR 340-100-0002. This is a Class I violation according to OAR 340-012-0068(1)(c). DEQ hereby assesses a $16,217 civil penalty for this violation.

2. Respondent violated a final order of DEQ by failing to comply with the RAO. Specifically, Respondent failed to submit to DEQ all hazardous waste manifests documenting the removal and transport of the hazardous wastes within 30 days of the transportation of the waste. Additionally, Respondent failed to complete the work in the approved Plan prior to December 9, 2016. Additionally, Respondent did not provide DEQ with documentation of the disposal of the liquid and sludge from the sumps or other solid waste until November 2017. These are Class I violations according to OAR 340-012-0053(1). DEQ did not assesses a civil penalty for these violations.

3. Respondent violated 40 CFR 262.34(a)(1)(i), as adopted pursuant to OAR 340-100-0002, by storing hazardous waste in containers that were not handled or stored in a manner to prevent leaking as required by 40 CFR 265.173(b), as alleged in Section II, paragraph 6. This is a Class II violation according to OAR 340-012-0068(2)(n). DEQ did not assess a civil penalty for this violation.

4. Respondent violated OAR 340-102-0041(2) by failing to submit an annual report to DEQ prior to March 1, 2017. This is a Class II violation according to OAR 340-012-0068(2)(t). DEQ did not assess a civil penalty for this violation.

IV. ORDER TO PAY CIVIL PENALTY

Based upon the foregoing FINDINGS OF FACTS AND CONCLUSIONS, Respondent is hereby ORDERED TO pay a total civil penalty of $16,217. The determination of the civil penalty is attached as Exhibit 1 and is incorporated as part of this Notice. If you do not file a request for hearing as set forth in Section V below, your check or money order must be made payable to "**State Treasurer, State of Oregon**" and sent to the **DEQ Business Office, 700 NE Multnomah Street, Suite 600, Portland, Or 97232**. Once you pay the penalty, the Notice becomes final.

V. NOTICE OF RIGHT TO REQUEST A CONTESTED CASE HEARING

You have a right to a contested case hearing on this Notice, if you request one in writing. DEQ must receive your request for hearing **within 20 calendar days** from the date you receive this Notice. If you have any affirmative defenses or wish to dispute any allegations of fact in this Notice or attached exhibit(s), you must do so in your request for hearing, as factual matters not denied will be considered admitted, and failure to raise a defense will be a waiver of the defense. (See OAR 340-011-0530 for further information about requests for hearing.) You must send your request to: **DEQ, 700 NE Multnomah Street, Ste 600, Portland, Oregon 97232**, fax it to **503-229-5100**, or email it to **DEQappeals@deq.state.or.us**. An administrative law judge employed by the Office of Administrative Hearings will conduct the hearing, according to ORS Chapter 183, OAR Chapter 340, Division 011 and OAR 137-003-0501 to 0700. You have a right to be represented by an attorney at the hearing, however you are not required to be. If you are an individual, you may represent yourself. If you are a corporation, partnership, limited liability company, unincorporated association, trust or government body, you must be represented by an attorney or a duly authorized representative, as set forth in OAR 137-003-0555.

Active duty service-members have a right to stay proceedings under the federal Service Members Civil Relief Act. For more information, please call the Oregon State Bar at 1-800-452-8260 or the Oregon Military Department at 1-800-452-7500. Additional information can be found online at the United States Armed Forces Legal Assistance (AFLA) Legal Services Locator website http://legalassistance.law.af.mil/content/locator.php.

If you fail to file a timely request for hearing, the Notice will become a final order by default without further action by DEQ, as per OAR 340-011-0535(1). If you do request a hearing but later withdraw your request, fail to attend the hearing or notify DEQ that you will not be attending the hearing, DEQ will issue a final order by default pursuant to OAR 340-011-0535(3). DEQ designates the relevant portions of its files, including information submitted by you, as the record for purposes of proving a prima facie case.

September 6, 2018
Date

Sarah Mueller for
Kieran O'Donnell, Manager
Office of Compliance and Enforcement

EXHIBIT 1

FINDINGS AND DETERMINATION OF RESPONDENT'S CIVIL PENALTY
PURSUANT TO OREGON ADMINISTRATIVE RULE (OAR) 340-012-0045

VIOLATION 1: Storing hazardous waste for more than 90 days without a permit, in violation of 40 CFR 262.34(b).

CLASSIFICATION: This is a Class I violation pursuant to OAR 340-012-0068(1)(c).

MAGNITUDE: The magnitude of the violation is major pursuant to OAR 340-012-0135(4)(b)(i) because Respondent stored more than 330 pounds of hazardous waste. Specifically, Respondent stored approximately 24,000 pounds of hazardous waste as set forth in the Notice.

CIVIL PENALTY FORMULA: The formula for determining the amount of penalty of each violation is: $BP + [(0.1 \times BP) \times (P + H + O + M + C)] + EB$

"BP" is the base penalty, which is $12,000 for a Class I, major magnitude violation in the matrix listed in OAR 340-012-0140(2)(b)(A)(ii) and applicable pursuant to OAR 340-012-0140 (2)(a)(M)(i). Respondent is registered as a large quantity generator of hazardous waste.

"P" is whether Respondent has any prior significant actions, as defined in OAR 340-012-0030(19), in the same media as the violation at issue that occurred at a facility owned or operated by the same Respondent, and receives a value of 0 according to OAR 340-012-0145(2) (a) (A), because there are no prior significant actions.

"H" is Respondent's history of correcting prior significant actions, and receives a value of 0 according to OAR 340-012-0145(3)(c) because there is no prior history.

"O" is whether the violation was repeated or ongoing, and receives a value of 4 according to OAR 340-012-0145(4)(d) because there were more than 28 occurrences of the violation. The violation was on-going from 90 days after Respondent took ownership of the property (February 2016) until the waste was disposed of in 2017.

"M" is the mental state of the Respondent, and receives a value of 2 according to OAR 340-012-0145(5)(b) because Respondent had constructive knowledge (reasonably should have known) of the requirement. Prior to purchasing the property, Respondent was informed that there were hazardous substances stored on the property. Based on this knowledge, Respondent reasonably should have known that those substances needed to be properly stored and disposed of if Respondent did not intend to use the substances.

"C" is Respondent's efforts to correct or mitigate the violation, and receives a value of -3 according to OAR 340-012-0145(6)(c) because Respondent made reasonable efforts to minimize the effects of the violation. Respondent disposed of the hazardous waste in 2017.

"EB" is the approximate dollar value of the benefit gained and the costs avoided or delayed as a result of the Respondent's noncompliance. It is designed to "level the playing field" by taking away any economic advantage the entity gained and to deter potential violators from deciding it is cheaper to violate and pay the penalty than to pay the costs of compliance. In this case, "EB" receives a value of $617. This is the amount Respondent gained by delaying spending, from February 2016 until August 2016, $6,666 to characterize the waste to determine if it was hazardous waste (which was required prior to transporting and disposing of the waste). Additionally, Respondent delayed spending $19,318 to dispose of the waste from February 2016 until March 2017. This "EB" was calculated pursuant to OAR 340-012-0150(1) using the U.S. Environmental Protection Agency's BEN computer model.

PENALTY CALCULATION: Penalty = BP + [(0.1 x BP) x (P + H + O + M + C)] + EB
= $12,000 + [(0.1 x $12,000) x (0 + 0 + 4 + 2 - 3)] + $617
= $12,000 + ($1,200 x 3) + $617
= $12,000 + $3,600 + $617
= $16,217

GRANGER David

From: JJStout1@aol.com
Sent: Tuesday, September 26, 2017 2:36 PM
To: DEQappeals
Cc: DkhatJJSpc@aol.com; patricia_curtin@hotmail.com
Subject: General Property Group, LLC LQ/HW-WR-2016-179

To whom it may concern,

Consider this email a request for a hearing in the above referenced matter.

Please confirm receipt of this email and the request for a hearing.

Thank you.

James J. Stout
Attorney at Law
419 S. Oakdale Ave.
Medford, OR 97501
541-618-8888
541-618-9015 Fax

This e-mail, and any attachments thereto, is intended only for use by the addressee(s) named herein and may contain legally privileged and/or confidential information. If you are not the intended recipient of this e-mail, you are hereby notified that any dissemination, distribution or copying of this e-mail, and any attachments thereto, is strictly prohibited. If you have received this e-mail in error, please immediately notify me at (541) 618-8888, and permanently delete the original and any copy of any e-mail and any printout thereof.

Oregon
Kate Brown, Governor

Department of Environmental Quality
Office of Compliance and Enforcement
700 NE Multnomah St Ste 600
Portland, OR 97232-4100
(503) 229-5696
FAX (503) 229-5100
TTY: 711

August 1, 2017

CERTIFIED MAIL: 7016 2140 0000 2420 3051

General Property Group, LLC
Kevin J. Curtin, Registered Agent
15800 SW Boones Ferry Road, Suite A-3
Lake Oswego OR 97035

Re: Notice of Civil Penalty Assessment and Order
Case No. LQ/HW-WR-2016-179

This letter is to inform you that DEQ has issued you a civil penalty of $29,417 for failing to properly store and dispose of hazardous waste located at a property you own at 702 S. Grape Street in Medford. The civil penalty includes the economic benefit you gained by delaying the costs of proper characterization and disposal of that hazardous waste. In November 2015, you purchased the property which, since the 1960's, was used as a plating facility. Prior to purchasing the property, you knew that hazardous substances were present in the various tanks and storage rooms at the property.

In August 2016, DEQ issued to you a Remedial Action Order which required you to characterize and dispose of all the waste by December 9, 2016. While you submitted documentation of the disposal of the hazardous waste in March 2017, you still have not submitted documentation of the disposal of liquid and sludge from sumps outside of the building or the disposal of waste other than hazardous waste. Although DEQ appreciates you submitting the manifests for the hazardous waste disposal, you still must submit the other disposal records, as required by the Remedial Action Order. Please submit those records as soon as possible to Dan Lobato, DEQ, 165 E. 7th Avenue, Suite 100 Eugene OR 97401. Additionally, you must submit a hazardous waste generator annual report detailing the activities related to the hazardous waste that occurred in 2016. Please send that report to Mary Fritzmann, DEQ, 700 NE Multnomah Street, Suite 600, Portland, Oregon 97232.

If you wish to appeal this matter, DEQ must receive a request for a hearing within 20 calendar days from your receipt of this letter. The hearing request must be in writing. Send your request to DEQ Office of Compliance and Enforcement:

Via mail – 700 NE Multnomah Street, Suite 600, Portland, Oregon 97232
Via email – DEQappeals@deq.state.or.us
Via fax – 503-229-5100

Once DEQ receives your request, we will arrange to meet with you to discuss this matter. If DEQ does not receive a timely written hearing request, the penalty will become due. Alternatively, you can pay the penalty by sending a check or money order to the above address.

The attached Notice further details DEQ's reasons for issuing the penalty and provides further instructions for appealing the penalty. Please review and refer to it when discussing this case with DEQ.

DEQ may allow you to resolve part of your penalty through the completion of a Supplemental Environmental Project (SEP). SEPs are environmental improvement projects that you sponsor instead of paying a penalty. Further information is available by calling the number below or at http://www.oregon.gov/deq/Regulations/Pages/SEP.aspx.

DEQ's rules are available at http://www.oregon.gov/deq/Regulations/Pages/Statutes.aspx or by calling the number below.

If you have any questions, please contact Susan Elworth at 503-229-5152 or toll free in Oregon at 800-452-4011, extension 5152.

Sincerely,

Sarah G. Wheeler, Acting Manager
Office of Compliance and Enforcement

Enclosures

cc: Dan Lobato, Eugene office, DEQ
Brian Fuller, Eugene office, DEQ
Shaumae Hall, Accounting, DEQ

BEFORE THE ENVIRONMENTAL QUALITY COMMISSION

OF THE STATE OF OREGON

IN THE MATTER OF: GENERAL PROPERTY GROUP, LLC, Respondent.	))))	NOTICE OF CIVIL PENALTY ASSESSMENT AND ORDER NO. LQ/HW-ER-2016-179

I. AUTHORITY

The Department of Environmental Quality (DEQ) issues this Notice of Civil Penalty Assessment and Order (Notice) pursuant to Oregon Revised Statutes (ORS) 468.100, ORS 468.126 through 468.140, ORS 466.990, ORS Chapter 183 and Oregon Administrative Rules (OAR) Chapter 340, Divisions 011, 012, 100 and 102.

II. FINDINGS OF FACT

1. On November 3, 2015, Respondent purchased a property located at 702 S. Grape Street in Medford, Oregon (the property).

2. Seller's Counter Offer No. 1 to Sale Agreement #PC93015 between Respondent and the prior owner, dated October 8, 2015, states "Seller is aware of the following issues: Line 238: there are hazardous substances."

3. From the 1960's until sometime prior to when Respondent purchased the property, the property was used as a metal plating facility.

4. On August 9, 2016, DEQ staff inspected the property and observed various chemicals which are typically used in the metal plating process stored in a plating room, storage room, and outside the building.

5. There are two drains in the concrete located outside of the building which convey liquid into underground sumps. During the August 2016 inspection, there was liquid and sludge in these sumps.

6. During the August 2016 inspection, a container of chromic oxide was leaking and had spilled onto the floor in the storage room.

7. None of the substances listed in paragraph 4 above had been used since before November 2015.

8. On August 30, 2016, DEQ issued a Remedial Action Order (RAO) to Respondent which required Respondent to:

a. Within 21 days of service of the RAO, submit a written plan (the Plan) to DEQ for characterizing, transporting and disposing all of the items in paragraph 4 above along with the contents of the sumps located outside the building; and

b. Within 30 days of DEQ's approval of the Plan, complete the work in the approved Plan; and

c. Within 30 days of completing the work in the Plan, submit to DEQ all hazardous waste manifests documenting the removal and transport of the hazardous wastes to a permitted facility and documentation of any other items disposed of at other locations.

9. Service of the RAO was perfected on Respondent on September 16, 2016.

10. On October 6, 2016, DEQ extended the deadline for submitting the Plan until October 28, 2016.

11. On October 27, 2016, DEQ received and approved the Plan.

12. On November 4, 2016, Respondent requested an extension to complete the work required under the Plan.

13. On November 8, 2016, DEQ approved an extension to complete the work until December 9, 2016.

14. On December 5, 2016, Respondent requested an extension to complete the work required under the Plan until the end of January.

15. DEQ did not approve Respondent's December 5, 2016 request.

16. On March 24, 2017, Respondent submitted to DEQ copies of manifests showing that waste was disposed of at a permitted hazardous waste disposal facility as follows:

Manifest #	Waste Description	EPA Hazardous Waste No(s).	Quantity	Date received by TSD
009996389	Waste carbon	D001 (40 CFR 261.21)	62 lbs.	1/31/2017
	Ammonium persulfate	D001 (40 CFR 261.21)	3 lbs.	
	Sulfuric acid	D002, D004, D005, D006, D007, D008 (40 CFR 261.22 & 261.24)	158 lbs.	
	Ammonium/sodium hydroxide	D002, D004, D005, D006, D007, D008 (40 CFR 261.22 and 261.24)	70 lbs.	
010466150	Cadmium oxide powder	D006 (40 CFR 261.24)	52 lbs.	3/1/2017
	Chromium with lead	D002, D004, D007, D008, F007 (40 CFR 261.22, 261.24 and 261.31)	5280 lbs.	
	Chromium	D002, D007, F007 (40 CFR 261.22, 261.24 and 261.31)	4920 lbs.	
	Chromium with silver	D002, D004, D006, D007, D011, F007 (40 CFR 261.22, 261.24 and 261.31)	12500 lbs.	
010466155	Hydrochloric acid solution	D002 (40 CFR 261.22)	755 lbs.	3/2/2017
010466158	Acidic corrosive liquid	D002 (40 CFR 261.22)	32 lbs.	3/2/2017
	Basic corrosive liquid	D002 (40 CFR 261.22)	96 lbs.	
010466151	Oxidizing liquid	D001, D002, D007 (40 CFR 261.21, 261.22 and 261.24)	30 lbs.	3/9/2017
010466157	Cadmium and chromium	D006, D007, F006 (40 CFR 261.24 and 261.31)	121 lbs.	3/6/2017
010466152	Fluorescent light tubes	D009 (40 CFR 261.24)	32 lbs.	3/10/2017

17. As of the date of this Notice, Respondent has not provided DEQ with documentation of the disposal of the liquid and sludge described in paragraph 5 above or solid (non-hazardous) waste listed in paragraph 4 above.

18. Neither Respondent nor any prior owner of the property had ever been issued a permit for a hazardous waste treatment, storage or disposal facility for the property.

19. On October 20, 2016, Respondent registered with DEQ as a large quantity generator under site identification no. ORD987201480 for the waste generated at the property.

20. As of the date of this Notice, DEQ has not received from Respondent a report covering the activities from 2016, as required by OAR 340-102-0041(2).

III. CONCLUSIONS

1. Respondent violated a final order of DEQ by failing to comply with the RAO. Specifically, Respondent failed to submit to DEQ all hazardous waste manifests documenting the removal and transport of the hazardous wastes within 30 days of the transportation of the waste. Additionally, Respondent failed to complete the work in the approved Plan prior to December 9, 2016. Additionally, Respondent has not provided DEQ with documentation of the disposal of the liquid and sludge from the sumps or other waste which was not disposed of as hazardous waste. These are Class I violations according to OAR 340-012-0053(1). DEQ hereby assesses a $13,200 civil penalty for these violations.

2. Respondent violated ORS 466.095(1)(a) by storing hazardous waste for more than 90 days without a permit. Specifically, the wastes listed in Section II, paragraph 16 were stored by Respondent from November 2015 until disposed of in 2017. As a large quantity generator of hazardous waste who does not have a hazardous waste storage or disposal permit, Respondent may only store hazardous waste for 90 days, pursuant to 40 CFR 262.34(a), adopted pursuant to OAR 340-100-0002. This is a Class I violation according to OAR 340-012-0068(1)(c). DEQ hereby assesses a $16,217 civil penalty for this violation.

3. Respondent violated 40 CFR 262.34(a)(1)(i), as adopted pursuant to OAR 340-100-0002, by storing hazardous waste in containers that were not handled or stored in a manner to prevent leaking as required by 40 CFR 265.173(b), as alleged in Section II, paragraph 6. This is a Class II violation according to OAR 340-012-0068(2)(n). DEQ did not assess a civil penalty for this violation.

4. Respondent violated OAR 340-102-0041(2) by failing to submit an annual report to DEQ prior ot March 1, 2017. This is a Class II violation according to OAR 340-012-0068(2)(t). DEQ did not assess a civil penalty for this violation.

IV. ORDER TO PAY CIVIL PENALTY AND TO COMPLY

Based upon the foregoing FINDINGS OF FACTS AND CONCLUSIONS, Respondent is hereby ORDERED TO pay a total civil penalty of $29,417. The determinations of the civil penalties are attached as Exhibits 1 and 2 and are incorporated as part of this Notice. If you do not file a request for hearing as set forth in Section V below, your check or money order must be made payable to "**State Treasurer, State of Oregon**" and sent to the **DEQ, Business Office, 700 NE Multnomah Street, Suite 600, Portland, Oregon 97232**. Once you pay the penalty, the Findings of Fact, Conclusions and Order become final.

2. Within 30 days after the order becomes final by operation of law or on appeal, Respondent must submit a hazardous waste generator report describing the hazardous waste you generated in 2016 as required by OAR 340-102-0041(2). This report must be sent to: Mary Fritzmann, DEQ, 700 NE Multnomah Street, Suite 600, Portland, Oregon 97232.

V. NOTICE OF RIGHT TO REQUEST A CONTESTED CASE HEARING

You have a right to a contested case hearing on this Notice, if you request one in writing. DEQ must receive your request for hearing **within 20 calendar days** from the date you receive this Notice. If you have any affirmative defenses or wish to dispute any allegations of fact in this Notice or attached exhibit(s), you must do so in your request for hearing, as factual matters not denied will be considered admitted, and failure to raise a defense will be a waiver of the defense. (See OAR 340-011-0530 for further information about requests for hearing.) You must send your request to: **DEQ, Office of Compliance and Enforcement, 700 NE Multnomah Street, Ste 600, Portland, Oregon 97232**, fax it to **503-229-5100**, or email it to **DEQappeals@deq.state.or.us**. An administrative law judge employed by the Office of Administrative Hearings will conduct the hearing, according to ORS Chapter 183, OAR Chapter 340, Division 011 and OAR 137-003-0501 to 0700. You have a right to be represented by an attorney at the hearing, however you are not required to be. If you are an individual, you may represent yourself. If you are a corporation, partnership, limited liability company,

unincorporated association, trust or government body, you must be represented by an attorney or a duly authorized representative, as set forth in OAR 137-003-0555.

Active duty service-members have a right to stay proceedings under the federal Service Members Civil Relief Act. For more information, please call the Oregon State Bar at 1-800-452-8260 or the Oregon Military Department at 1-800-452-7500. Additional information can be found online at the United States Armed Forces Legal Assistance (AFLA) Legal Services Locator website http://legalassistance.law.af.mil/content/locator.php.

If you fail to file a timely request for hearing, the Notice will become a final order by default without further action by DEQ, as per OAR 340-011-0535(1). If you do request a hearing but later withdraw your request, fail to attend the hearing or notify DEQ that you will not be attending the hearing, DEQ will issue a final order by default pursuant to OAR 340-011-0535(3). DEQ designates the relevant portions of its files, including information submitted by you, as the record for purposes of proving a prima facie case.

August 1, 2017
Date

Sarah Wheeler
Sarah G. Wheeler, Acting Manager
Office of Compliance and Enforcement

EXHIBIT 1

FINDINGS AND DETERMINATION OF RESPONDENT'S CIVIL PENALTY
PURSUANT TO OREGON ADMINISTRATIVE RULE (OAR) 340-012-0045

VIOLATION 1: Failing to comply with the RAO.

CLASSIFICATION: This is a Class I violation pursuant to OAR 340-012-0053(1)(a).

MAGNITUDE: The magnitude of the violation is moderate pursuant to OAR 340-012-0130(1), as there is no selected magnitude specified in OAR 340-012-0135 applicable to this violation, and the information reasonably available to DEQ does not indicate a minor or major magnitude.

CIVIL PENALTY FORMULA: The formula for determining the amount of penalty of each violation is: $BP + [(0.1 \times BP) \times (P + H + O + M + C)] + EB$

"BP" is the base penalty, which is $6,000 for a Class I, moderate magnitude violation in the matrix listed in OAR 340-012-0140(2)(b)(A)(ii) and applicable pursuant to OAR 340-012-0140 (2)(a)(M)(i). Respondent is registered as a large quantity generator of hazardous waste.

"P" is whether Respondent has any prior significant actions, as defined in OAR 340-012-0030(19), in the same media as the violation at issue that occurred at a facility owned or operated by the same Respondent, and receives a value of 0 according to OAR 340-012-0145(2) (a) (A), because there are no prior significant actions.

"H" is Respondent's history of correcting prior significant actions, and receives a value of 0 according to OAR 340-012-0145(3)(c) because there is no prior history.

"O" is whether the violation was repeated or ongoing, and receives a value of 4 according to OAR 340-012-0145(4)(d) because there were more than 28 occurrences of the violation. The violation has been on-going since December 9, 2016, when Respondent was required to submit the documentation under the RAO. As of the date of the Notice, Respondent has not submitted documentation regarding the disposal of the non-hazardous waste, including the liquid and sludge in the sumps. Additionally, Respondent submitted documentation of the disposal of the hazardous wastes on March 24, 2017, approximately 3.5 months after the compliance deadline.

"M" is the mental state of the Respondent, and receives a value of 8 according to OAR 340-012-0145(5)(d) because Respondent acted or failed to act intentionally with actual knowledge of the requirement. In August 2016, DEQ sent Respondent a RAO, requiring Respondent to submit the disposal documentation by December 9, 2016. In November 2016, at Respondent's request, DEQ gave Respondent an extension to comply with the RAO. Following that extension, DEQ contacted Respondent on several occasions to learn of the

Following that extension, DEQ contacted Respondent on several occasions to learn of the status of the removal. As of the date of the Notice, Respondent has still not submitted documentation regarding the non-hazardous wastes. Respondent consciously failed to submit the documentation with actual knowledge of the requirement to do so.

"C" is Respondent's efforts to correct or mitigate the violation, and receives a value of 0 according to OAR 340-012-0145(6)(f) because there is insufficient information to make a finding under paragraphs (6)(a) through (6)(e), or (6)(g). Although Respondent has submitted some of the disposal documentation, it has failed to submit all of the required documentation.

"EB" is the approximate dollar value of the benefit gained and the costs avoided or delayed as a result of the Respondent's noncompliance. It is designed to "level the playing field" by taking away any economic advantage the entity gained and to deter potential violators from deciding it is cheaper to violate and pay the penalty than to pay the costs of compliance. In this case, "EB" receives a value of $0 as any benefit gained by Respondent is captured in Exhibit 2.

PENALTY CALCULATION: Penalty = BP + [(0.1 x BP) x (P + H + O + M + C)] + EB
= $6,000 + [(0.1 x $6,000) x (0 + 0 + 4 + 8 + 0)] + $0
= $6,000 + ($600 x 12) + $0
= $6,000 + $7,200 + $0
= $13,200

EXHIBIT 2

FINDINGS AND DETERMINATION OF RESPONDENT'S CIVIL PENALTY
PURSUANT TO OREGON ADMINISTRATIVE RULE (OAR) 340-012-0045

VIOLATION 2: Storing hazardous waste for more than 90 days without a permit, in violation of 40 CFR 262.34(b).

CLASSIFICATION: This is a Class I violation pursuant to OAR 340-012-0068(1)(c).

MAGNITUDE: The magnitude of the violation is major pursuant to OAR 340-012-0135(4)(b)(i) because Respondent stored more than 330 pounds of hazardous waste. Specifically, Respondent stored approximately 24,000 pounds of hazardous waste as set forth in the Notice.

CIVIL PENALTY FORMULA: The formula for determining the amount of penalty of each violation is: $BP + [(0.1 \times BP) \times (P + H + O + M + C)] + EB$

"BP" is the base penalty, which is $12,000 for a Class I, major magnitude violation in the matrix listed in OAR 340-012-0140(2)(b)(A)(ii) and applicable pursuant to OAR 340-012-0140 (2)(a)(M)(i). Respondent is registered as a large quantity generator of hazardous waste.

"P" is whether Respondent has any prior significant actions, as defined in OAR 340-012-0030(19), in the same media as the violation at issue that occurred at a facility owned or operated by the same Respondent, and receives a value of 0 according to OAR 340-012-0145(2) (a) (A), because there are no prior significant actions.

"H" is Respondent's history of correcting prior significant actions, and receives a value of 0 according to OAR 340-012-0145(3)(c) because there is no prior history.

"O" is whether the violation was repeated or ongoing, and receives a value of 4 according to OAR 340-012-0145(4)(d) because there were more than 28 occurrences of the violation. The violation was on-going from 90 days after Respondent took ownership of the property (February 2016) until the waste was disposed of in 2017.

"M" is the mental state of the Respondent, and receives a value of 2 according to OAR 340-012-0145(5)(b) because Respondent had constructive knowledge (reasonably should have known) of the requirement. Prior to purchasing the property, Respondent was informed that there were hazardous substances stored on the property. Based on this knowledge, Respondent reasonably should have known that those substances needed to be properly stored and disposed of if Respondent did not intend to use the substances.

"C" is Respondent's efforts to correct or mitigate the violation, and receives a value of -3 according to OAR 340-012-0145(6)(c) because Respondent made reasonable efforts to minimize the effects of the violation. Respondent disposed of the hazardous waste in 2017.

"EB" is the approximate dollar value of the benefit gained and the costs avoided or delayed as a result of the Respondent's noncompliance. It is designed to "level the playing field" by taking away any economic advantage the entity gained and to deter potential violators from deciding it is cheaper to violate and pay the penalty than to pay the costs of compliance. In this case, "EB" receives a value of $617. This is the amount Respondent gained by delaying spending, from February 2016 until August 2016, $6,666 to characterize the waste to determine if it was hazardous waste (which was required prior to transporting and disposing of the waste). Additionally, Respondent delayed spending $19,318 to dispose of the waste from February 2016 until March 2017. This "EB" was calculated pursuant to OAR 340-012-0150(1) using the U.S. Environmental Protection Agency's BEN computer model.

PENALTY CALCULATION: Penalty = BP + [(0.1 x BP) x (P + H + O + M + C)] + EB
= $12,000 + [(0.1 x $12,000) x (0 + 0 + 4 + 2 - 3)] + $617
= $12,000 + ($1,200 x 3) + $617
= $12,000 + $3,600 + $617
= $16,217

BEFORE THE ENVIRONMENTAL QUALITY COMMISSION
OF THE STATE OF OREGON

In the Matter of: General Property Group, LLC.

Respondent(s),

Case No.: LQ/HW-ER-2016-179

AFFIDAVIT OF SERVICE

I hereby certify that I am a competent person 18 years of age older and a resident of the state of service or the State of Oregon and not a party to nor an officer, director, or employee of, nor attorney for any party, corporate or otherwise; and know that the person, firm, or corporation served is the identical one named in the action.

I further certify that I made service of **Letter dated August 1, 2017 Re: Notice of Civil Penalty Assessment and Order; Notice of Civil Penalty and Order; Exhibits 1, 2** as follows:

POSTED SERVICE

Upon **Kevin J Curtin,** by posting two true copies in a secure manner at **c/o General Property Group LLC, 4740 Cloudcrest Group, Medford, OR 97501** on **September 18, 2017** at **9:20 AM.**

Patrick Sculley

STATE of OREGON, County of JOSEPHINE.

Signed or attested before me by Patrick Sculley on (date) September 27, 2017.

NOTARY PUBLIC (seal)

OFFICIAL STAMP
KAALYN SHAE CAMPBELL
NOTARY PUBLIC-OREGON
COMMISSION NO. 962640
MY COMMISSION EXPIRES MAY 16, 2021

Job #: 10616