

**OREGON  
ENVIRONMENTAL QUALITY  
COMMISSION MEETING  
MATERIALS 06/06/2002**



**State of Oregon  
Department of  
Environmental  
Quality**

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EAC Meeting, 4/6/02 Handout

*An Introduction  
to Oregon's  
Water Laws and  
Water Rights  
System*

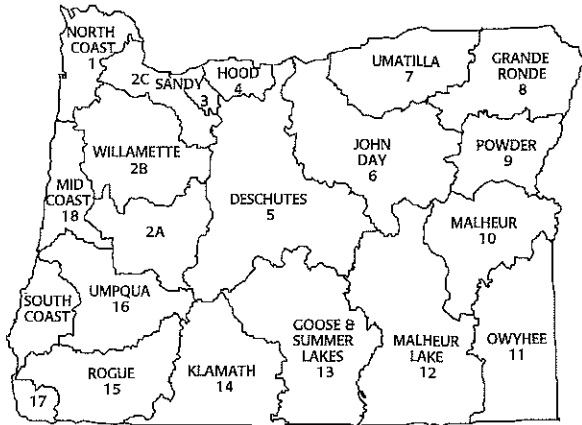


WATER  
RIGHTS  
*in*  
OREGON

Prepared by  
the Oregon Water  
Resources Department

January 2001

## Oregon's Major River Basins



Oregon has 18 designated river basins that are managed by the Department under the guidance of the Commission. Oregon also shares two basins with neighboring states—the Columbia and Snake Rivers. A river basin includes all the land area, surface water bodies, aquifers and tributary streams that drain into the namesake river.

## Water Quantity Conversion Table

Water measurements are generally described using one of three terms. When applying for a permit to use water, an applicant is required to submit all measurements in one of the following terms.

Generally, when referring to a rate to be diverted, the terms used are cubic feet per second (cfs) or gallons per minute (gpm). When discussing volumes of water, such as amount applied to land, reservoir storage capacity, or yearly consumption, the term used is acre-feet (af). Applications for water use specify the appropriate measurement to use when filing information with the Department.

### Rates of Flow

One (1) cubic foot per second (cfs) is a rate of water flow which will supply one cubic foot of water in one second and is equivalent to flow rates of:

- 1 cfs = 7.48 gallons per second
- 1 cfs = 448.8 gallons per minute
- 1 cfs = 646,272 gallons per day
- 1 cfs = 1.98 acre-feet per day

### Volume Measurement

One (1) acre-foot is the volume of water which will cover one acre to a depth of one foot and is equal to:

- 1 af = 43,560 cubic feet
- 1 af = 325,851 gallons

## Land subdivision

6	5	4	3	2	1
7	8	9	10	11	12
18	17	16	15	14	13
19	20	21	22	23	24
30	29	28	27	26	25
31	32	33	34	35	36

NW	NE	NW	NE
NW	NW	NE	NE
SW	SE	SW	SE
NW	NE	NW	NE
SW	SE	SW	SE
SW	SE	SW	SE
SW	SE	SW	SE
SW	SE	SW	SE

Section  
1 Mile  
640 acres

160 acres	80 acres	10 acres
		20 acres
		40 acres
320 acres		

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# THE WATER RESOURCES COMMISSION AND DEPARTMENT

*"To serve the public by practicing and promoting  
wise long-term water management."*

**The Water Resources Commission** is a seven-member citizen body established by statute to set water policy for the state and oversee activities of the Water Resources Department in accordance with state law. Members are appointed by the Governor, then subject to confirmation by the Oregon Senate, for four-year terms. One member is appointed from each of the five regional river basin management areas, one member from east of the Cascades, and one member from the area west of the Cascades.

**The Water Resources Department** is the state agency charged with administration of the laws governing surface and ground water resources. The Department is currently organized into five divisions—Field Services, Technical Services, Resource Management, Water Rights and Adjudications, Administrative Services, and the Director's Office—all operating under the immediate authority of the Director.

**The Director** is appointed by the Governor to serve a four-year term, subject to confirmation by the Oregon Senate. The Director is charged with applying the Commission's adopted policies and rules through Department programs. In addition, the Director has independent responsibility for adjudication of pre-1909 water rights.

## I. OREGON WATER LAWS

### *water management in Oregon*

### The Water Code

Under Oregon law, all water is publicly owned. With some exceptions, cities, farmers, factory owners and other users must obtain a permit or water right from the Water Resources Department to use water from any source—whether it is underground, or from lakes or streams. Landowners with water flowing past, through, or under their property do not automatically have the right to use that water without a permit from the Department.

#### *Prior Appropriation*

Oregon's water laws are based on the principle of prior appropriation. This means the first person to obtain a water right on a stream is the last to be shut off in times of low streamflows. In water-short times, the water right holder with the oldest date of priority can demand the water specified in their water right regardless of the needs of junior users. If there is a surplus beyond the needs of the senior right holder, the person with the next oldest priority date can take as much as necessary to satisfy needs under their right and so on down the line until there is no surplus. The date of application for a permit to use water usually becomes the priority date of the right.

The prior-appropriation doctrine is the basis of water law for most of the states west of the Mississippi River. East of the Mississippi, the riparian doctrine usually applies. Under the riparian doctrine, only landowners with water flowing through their property have claims to the water. In Oregon, the appropriation

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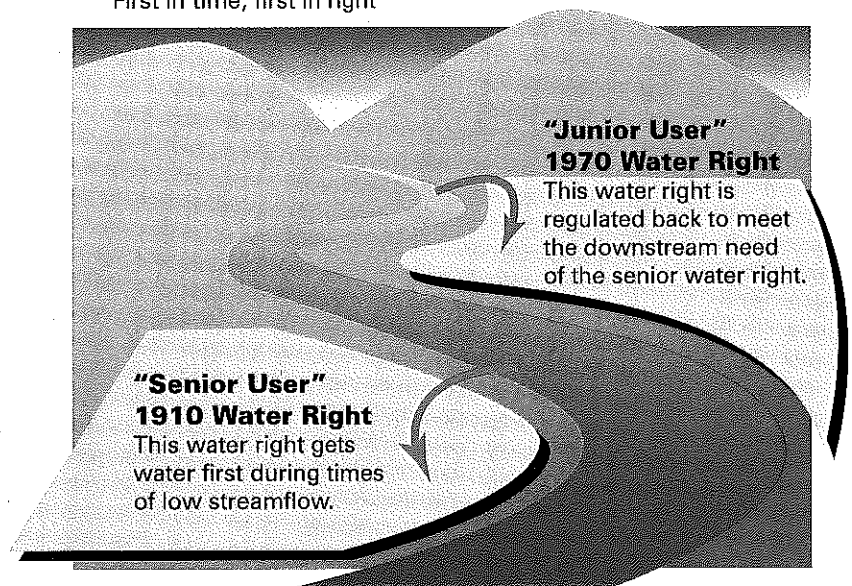
In order to take and use the waters of Oregon, a citizen must first obtain a permit from the Water Resources Department. The water must be used for a beneficial purpose without waste.

**OREGON'S WATER CODE***four fundamental provisions*

- **Beneficial purpose without waste**  
Surface or ground water may be legally diverted for use only if it is used for a beneficial purpose without waste.
- **Priority**  
The water right priority date determines who gets water in a time of shortage. The more senior the water right, the longer water is available in a time of shortage.
- **Appurtenancy**  
A water right is attached to the land where it was established, as long as the water is used. If the land is sold, the water right goes with the land to the new owner.
- **Must be used**  
Once established, a water right must be used as provided in the water right at least once every five years. With some exceptions established in law, after five consecutive years of non-use, the right is considered forfeited and is subject to cancellation.

doctrine has been law since February 24, 1909 when passage of the first unified water code introduced state control over the right to use water. Before then, water users had to depend on themselves or local courts to defend their rights to water.

Generally, Oregon law does not provide a preference for one kind of use over another. If there is a conflict between users, the date of priority determines who may use the available water. If the rights in conflict have the same date of priority, then the law

**Prior Appropriation: an example***"First in time, first in right"**An example of prior appropriation at work*

Prior appropriation ensures that the first water user to obtain water rights has first access to water in times of shortage. If a "downstream" landowner has the earlier priority date (they staked their water right in 1910) the "upstream" landowner may have to let the water pass unused to meet the needs of the senior, downstream water right holder.

indicates domestic use and livestock watering have preference over all other uses. However, if a drought is declared by the Governor, the Department can give preference to stock watering and household consumption purposes, regardless of the priority dates of the other users. Ground water rights for geothermal uses, such as heating or air conditioning, are always junior in priority to other uses of water unless the water is also used for another purpose, such as irrigation, or injected back into the ground water reservoir.



Some uses of water do not require water rights. These are called “exempt uses.”

#### Exempt uses of surface water

**1. Natural springs:** a landowner’s use of a spring which, under natural conditions, does not form a natural channel and flow off the property where it originates at any time of the year.

**2. Stock watering:** where stock drink directly from a surface water source and there is no diversion or other modification to the source. Also, use of water for stockwatering from a permitted reservoir to a tank or trough, and, under certain conditions, use of water piped from a surface source to an off-stream livestock watering tank or trough.

**3. Salmon:** egg incubation projects under the Salmon and Trout Enhancement Program (STEP) are also exempt. Also, water used for fish screens, fishways and bypass structures.

**4. Fire control:** the withdrawal of water for use in, or training for, emergency fire fighting.

**5. Forest management:** certain activities such as slash burning and mixing pesticides. To be eligible, a user must notify the Department and the Oregon Department of Fish and Wildlife and must comply with any restrictions imposed by the Department relating to the source of water that may be used.

**6. Land management practices:** where water use is not the primary intended activity.

**7. Rainwater:** collection and use of rainwater from an impervious surface (like a parking lot or a building’s roof).

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For more information, refer to ORS 537.141.

**Ground water exempt uses**

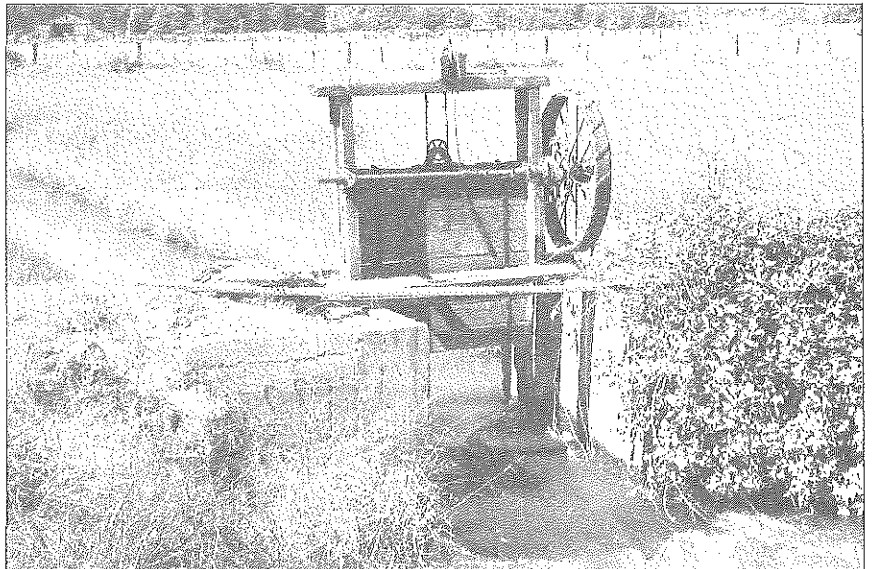
1. **Stock watering.**
2. **Lawn or non-commercial garden: watering of not more than one-half acre in area.**
3. **Single or group domestic purposes: for no more than 15,000 gallons per day.**
4. **Single industrial or commercial purposes: not exceeding 5,000 gallons per day.**
5. **Down-hole heat exchange uses.**
6. **School grounds: ten acres or less, of schools located within a critical ground water area.**

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For more information, refer to ORS 537-545.

**Note:** While these water uses do not require a water right, the use is only allowed if the water is used for a “beneficial purpose without waste” and may be subject to regulation in times of water shortage.

Oregon’s minimum well construction standards must be followed for the construction, maintenance, and abandonment of exempt wells.



## 2. WATER PROTECTIONS AND RESTRICTIONS

*managing water appropriations*

### Basin-by-Basin Water Use Restrictions

Some waters within the state may be closed to new appropriation by legislative action or restricted by an administrative rule or order of the Water Resources Commission. These restrictions on new uses from streams and aquifers are adopted to assure sustained supplies for existing water users and to protect important natural resources. Except in very severe situations (e.g., critical ground water areas), these restrictions do not affect existing water uses, only the Department's ability to authorize new uses in these basins.

#### *Basin Programs*

The Water Resources Commission adopts basin programs to set policies for managing river basins. A river basin includes all the land area, surface water bodies, aquifers and tributary streams that drain into the major namesake river. A map of the state's river basins is on the inside front cover.

Basin programs include water use "classifications" that describe the types of new water right applications that may be considered by the Department. Applicants should check with the Department before submitting an application to determine what classifications have been adopted on the proposed source of water.

The Commission has adopted basin programs for all but two of the state's 20 major river basins. Although the Commission has not adopted comprehensive basin programs for the Klamath and Malheur Lake basins, use of water in those basins is

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Water measurements ensure that the needs of cities, farms, industries, and instream water rights are protected from illegal use. These measurements help the Department monitor the state's water resources and plan for future needs in each basin.

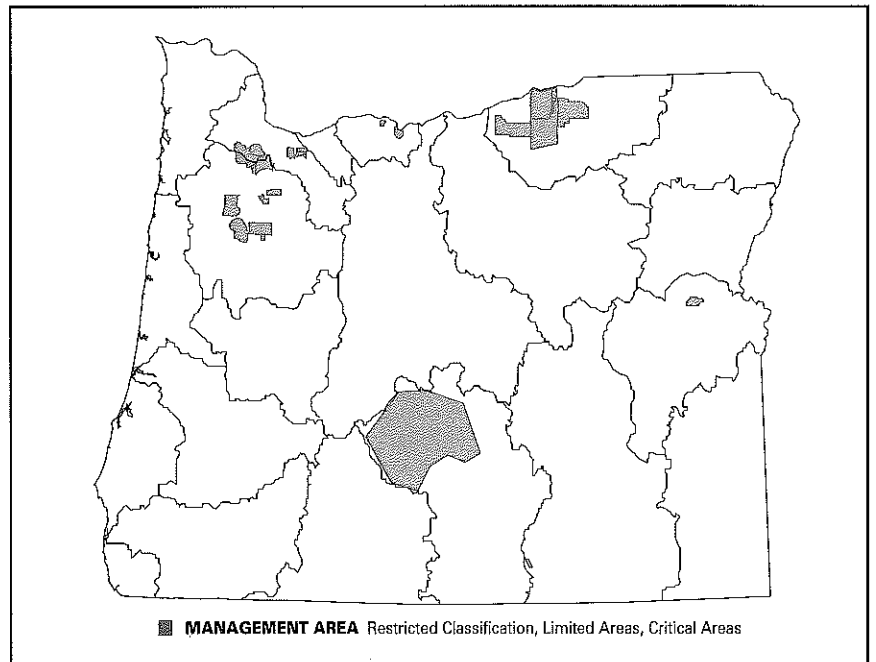
still subject to other administrative rules. The Commission revises classifications in basin programs when the lack of available water or other factors indicate that new appropriations should not be allowed. Any change in the classification of a stream or aquifer restricts only new uses of water. Basin programs are updated periodically.

### *Critical Ground Water Areas*

The law requires that when pumping of ground water exceeds the long-term natural replenishment of the underground water reservoir, the Water Resources Commission must act to declare the source a critical ground water area and restrict water use. The law is designed to prevent excessive declines in ground water levels. The order setting the limits of the critical area may also provide for certain users of water to have preference over other users, regardless of established water right priority dates. Critical ground water areas also can be declared if there is interference between wells and senior surface water users or deterioration of ground water quality.

Once a critical ground water proceeding is initiated by the Commission, no new well permits are issued during the course of the proceeding. The final order may restrict both existing and future uses in order to stabilize the resource.

To date, Oregon has declared six critical ground water areas. The critical areas are Cow Valley near Vale; The Dalles in Wasco County; Cooper Mountain-Bull Mountain southwest of Beaverton and Tigard; and the Butter Creek, Ordnance and Stage Gulch areas in Morrow and Umatilla Counties. The Commission also started critical area proceedings in the Christmas Valley/Fort Rock Basin in 1984. In 1986, the Commission opted to withdraw the area from further appropriation, except for certain small uses.



### *Ground Water Limited Areas*

The northern Willamette Valley and much of the Columbia River plateau contain many sources of ground water that are isolated in volcanic rock. These aquifers are in the Columbia River Basalt group, or basalt for short. Heavy pumping from the basalt and another geologic unit, the Troutdale Formation, have caused declines in these areas. In 1992, the Commission established 11 "ground water limited areas" in the northern Willamette Valley. These areas are in the following approximate locations: Sandy-Boring, Damascus, Glad-tidings, Kingston, Mt. Angel, Sherwood, Dammasch-Wilsonville, Stayton-Sublimity, Parrett Mountain, Chehalem Mountain, Eola Hills, and South Salem Hills. The Willamette and Sandy Basin programs list the limitations. Through changes to the basin programs, additional pumping in these areas is restricted to a few designated uses.

For more information, refer to OAR 690-502

The Department's role is to prevent excessive ground water declines, restore aquifer stability, and preserve aquifers with limited storage capacity for designated high public value uses. As more wells are drilled, the Department may find other areas where use from basalt and other aquifers must be limited. Such limitation applies to the specific aquifer that a well is tapping. In some cases, water may still be available at a different depth from a different formation.

### 3. OBTAINING NEW WATER RIGHTS

#### *gaining authorization to use water*

Water rights are obtained in a three-step process. The applicant first must apply to the Department for a permit to use water. Once a permit is granted, the applicant must construct a water system and begin using water. When water is applied, the permit holder must hire a certified water rights examiner to complete a survey of water use and submit to the Department a map and a report detailing how and where water is being applied. If water has been used according to the provisions of the permit, a water right certificate is issued based upon the report findings.

In many areas of the state, water is no longer available for new uses on a year-round basis. In this situation, allowing new uses would injure or interfere with existing, more senior, uses. For example, a large new well can dry up a nearby older well. Adding new users to the water system is done carefully to preserve the investments already made in the state, whether in farms, factories or fish hatcheries.

Water rights are not automatically granted. An opportunity is provided for other water right holders and the public to protest the issuance of a permit.

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In order to take and use the waters of Oregon, a citizen must first obtain a permit from the Water Resources Department. The water must be used for beneficial purpose — without waste.

Water users can assert that a new permit may injure their water use, and the public can claim that issuing a new permit may be detrimental to the public interest. This provides protection for both existing water users and public resources.

## Water-Use Permits

### *The First Step: requesting a water-use permit*

A permit is the authorization from the Department necessary to begin constructing a water system and begin using water. Construction might be as simple as digging a short ditch by hand or as elaborate as installing a large pivot-irrigation system. Once the Department issues a permit, if the user complies with the conditions of the permit and develops their water right, the Department cannot later decide to revoke or change the permit or impose new standards for the use.

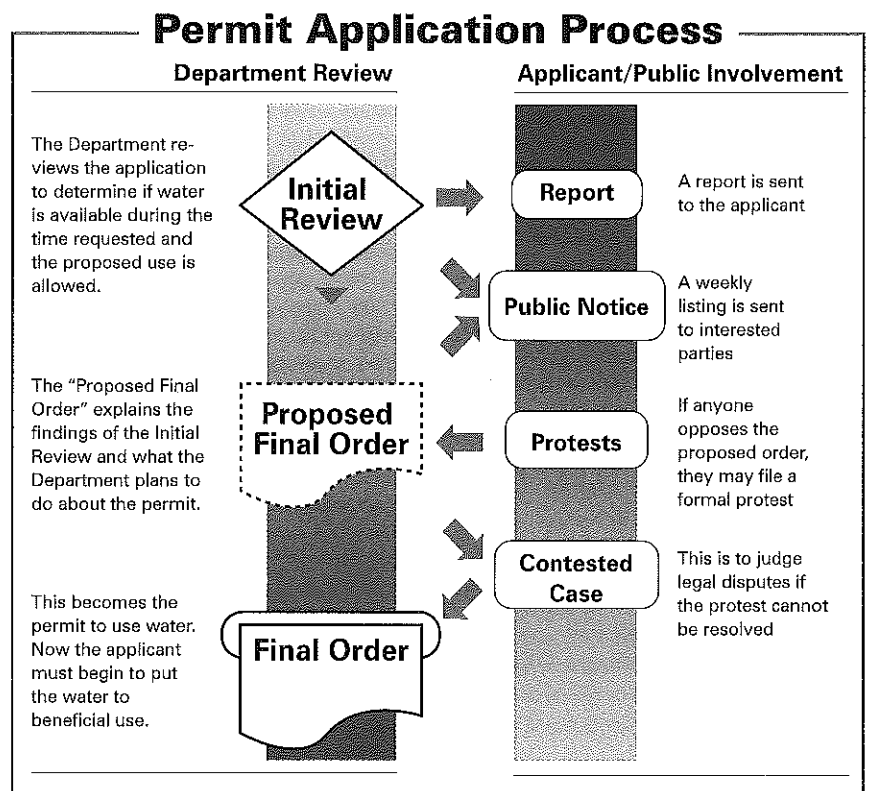
For an application to be considered, an applicant must submit a completed application and the following information to the Department:

#### **General application requirements:**

1. A legal description of the property involved (may be found on a deed, land sales contract or title insurance policy).
2. A map showing the features of the proposed use and proposed source located according to township, range and section including any roads or other right of ways crossed by proposed diversion works.
3. Written authorization permitting access to land not owned by the applicant (including land crossed by proposed diversion works).

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Applications and more detailed instructions are available at all Department offices.



4. The names and addresses of any other property owners that may be affected by the proposed development.
  5. Land use information obtained from the affected local government planning agency signed by official or planner.
  6. Supplemental Form (if necessary) such as Form I for irrigation or Form M for Municipal right.
- Oregon law also requires that the applicant pay a fee set by statute. This fee contributes to the costs of reviewing and handling the application. The fee schedule is included on page 46.



The requirements outlined in the Oregon statutes and the Department's administrative rules require the Department to issue a final order approving or denying the application within eight months.

However, if protests are filed, the Department may schedule a contested case hearing to resolve issues raised in the protest(s). A contested case hearing often causes the total process to extend beyond eight months.

#### Pre-application consultation

Applicants with complex requests, or applicants who are unfamiliar with the application process, are encouraged to contact the Department to schedule a "pre-application conference." The Department's Water Rights Section staff are available to meet with applicants about their proposed project.

A pre-application conference can help the process to go much smoother and minimize chances that the applicant will encounter surprises along the way.

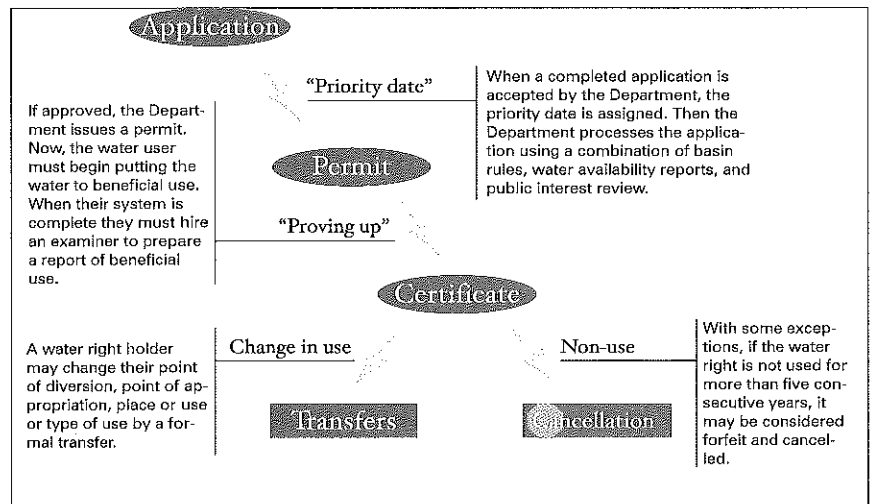
#### Application review

During the application review stage, applications are examined by the Department to ensure that allowing the proposed use will not cause injury to other users or public resources. The Department also determines if water is likely to be available for use and considers many other factors in its analysis of the application. These factors include basin plan restrictions that might prohibit certain uses or further appropriations, local land use restrictions, impacts on sensitive, threatened or endangered species of wildlife, and water quality, and other state and federal policies.

Also during the application review stage, other water right holders, government agencies and the public may comment on or protest the issuance of a new permit.

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To inquire about a pre-application conference, please contact the Salem office at: (503) 378-8455.



*The second step: constructing the system and using water*

Once the Department determines that a new water use can be allowed, a permit is issued. The permit will contain time limits to complete using water. Other conditions may also be placed on the permit, such as a requirement for metering the water flow, reporting water use, or installing and maintaining fish screens.

The permit holder must use water within the time limits set in the permit, generally between four and five years. The permit holder may apply for an extension of time to complete construction and to use water. The Department considers each request for an extension of time on a case-by-case basis. If there is good cause for not completing the construction in a timely manner and the permit holder has shown diligence in trying to meet the requirements of the permit, an extension may be granted.

**Changing or modifying a permit:**

The point of diversion or the place of water use under a permit may be changed by submitting an application to the Department. The application is similar to a

transfer application (discussed on pages 31-35), except the required map does not have to be prepared by a Certified Water Right Examiner. Evidence of use of water is not required. The change in the permit will be allowed only if it will not cause injury to other water rights. Under certain, limited circumstances, permit holders may also change a surface water point of diversion to a nearby ground water source. The other terms and conditions in the permit cannot be changed.

*The third step: “proving up” the water use*

Once the water project is completed, the permit holder must send notice to the Department that work has been completed on time. The permit holder is then required to submit proof of water use to the Department.

Except for certain small ponds (see page 23), a water user must hire a Certified Water Right Examiner (CWRE) to survey the extent of water use and within one year of completion (or the completion date, whichever is sooner) submit a map and claim of beneficial use to the Water Resources Department (all conditions must be met). Certified water right examiners are registered, professional surveyors or engineers who have passed a test given by the Oregon Board of Engineering Examiners. For a list of CWREs, call the Department in Salem ((503) 378-8455) or your local watermaster.

In some instances, personnel from the Department may conduct a brief field inspection of the completed appropriation to check the accuracy of the survey supplied by the CWRE. The inspector may want to check the size and type of equipment or to verify that the amount of water requested has been put to use according to the permit. If necessary, water measurements may be taken.

Oregon's water law provides that a water right may be issued only for the quantity of water that is beneficially used. In some cases, applicants inadvertently ask for too much water or simply use less water than originally intended. Based on the survey, the Department will determine the quantity of water that can be applied without waste. However, this will not exceed the amount allowed by the permit or the amount actually used, whichever is less.

*Final Certificates: the "perfected" water right*

With the final proof survey map and water-use report, the Department will determine if the permit holder has met the conditions of the permit. If so, a water right certificate is issued. The water right certificate will continue to be valid as long as the water is used according to the provisions of the water right at least once every five years. (For exceptions to this requirement, see pages 35-37 on cancellation of water rights.)

The amount of water allowed in the certificate will be both an instantaneous rate and, if for irrigation, an annual amount. The appropriator may divert a certain maximum rate but may not exceed the total amount allowed for the year. The instantaneous rate is usually expressed in cubic feet per second (cfs) or gallons per minute (gpm) and the annual amount in acre-feet (af). On the inside cover of this booklet is a table for converting cfs, gpm, and af.

A water right permit or certificate will not guarantee water for the appropriator. Under the prior-appropriation doctrine, the water right authorizes diversions of water only to the extent water is available. The amount of water available to a water right holder depends on the water supply, and the needs of other water rights, including instream water rights with senior priority dates on the same stream or aquifer.

## Water dedicated to instream uses

The Department also approves instream water rights for fish protection, minimizing the effects of pollution or maintaining recreational uses. Instream water rights establish flow levels to stay in a stream on a month-by-month basis and are usually set for a certain stream reach and measured at a specific point on the stream. Instream water rights have a priority date and are regulated in the same way as other water rights.

Instream water rights were established by the 1987 Legislature. This law allows the Departments of Fish and Wildlife, Environmental Quality and Parks and Recreation to apply for instream water rights. The law gives instream water rights the same status as other water rights. In a Governor-declared drought, Oregon law allows the Department to give preference to human consumption and livestock watering over other uses including instream uses.

Instream water rights are not guarantees that a certain quantity of water will be present in the stream. When the quantity of water in a stream is less than the instream water right, the Department will require

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For more information, refer to ORS 537.332 and OAR 690-77.



junior water right holders to stop diverting water. However, under Oregon law, an instream water right cannot affect a use of water with a senior priority date.

When considering a water right application in or above a state scenic waterway, the Department is required by law to find that the proposed use will not impair the recreational, fish and wildlife values in the scenic waterway. The Department has prepared estimates of the streamflow levels needed to satisfy these uses. These are commonly referred to as the “Diack” flows and may be used in determining whether new water rights in or above a scenic waterway should be authorized.

Oregon law also allows water right holders to sell, lease or donate water rights to be converted to instream water rights. This is done by a formal transfer of the existing right from the current use to a new type of use. Transfers are discussed in detail on pages 31-35.

## Rights to stored water

### *Reservoirs and ponds*

The construction of a reservoir or pond of any size to store water requires a permit from the Department. A permit to construct a reservoir allows storage of streamflow that is surplus to the needs of existing rights. The reservoir usually is filled from higher streamflows which occur in the winter months. A reservoir permit with the sole purpose of storing water is considered the primary permit. For ponds storing less than 9.2 acre-feet, a CWRE survey is not required. Instead, permittees must submit to the Department information on the dimensions, capacity, and location of such ponds. If you intend to divert and use the water which is stored in the pond or reservoir, you will need an additional, or secondary, permit. Like all other

permits to use stored water, secondary permits for ponds storing less than 9.2 acre-feet require a CWRE survey. This allows the Department to evaluate the type and location of water use and evaluate them according to existing rules and basin program.

A holder of a water right to the natural flow of a stream has no right to water stored in the reservoir of another water right holder. The stream right applies only to the actual flow, which equals the amount of water entering the reservoir. A reservoir water right holder usually does not have to release stored water to satisfy the needs of senior, natural flow rights on the same stream system. However, the operator of the reservoir needs to provide some means of passing natural flow through or around the reservoir to satisfy downstream prior water right holders and instream water rights.

Reservoirs with a dam higher than 10 feet and which store more than 9.2 acre-feet of water must submit engineering plans and specifications for approval by the Department before the reservoir is constructed. Smaller reservoirs and dams do not require the Department's approval or designs and plans. However, the Department highly encourages dam builders to seek the Department's technical review of plans before beginning construction. This will help ensure a sound dam with the necessary safeguards in place for the protection of downstream property owners.

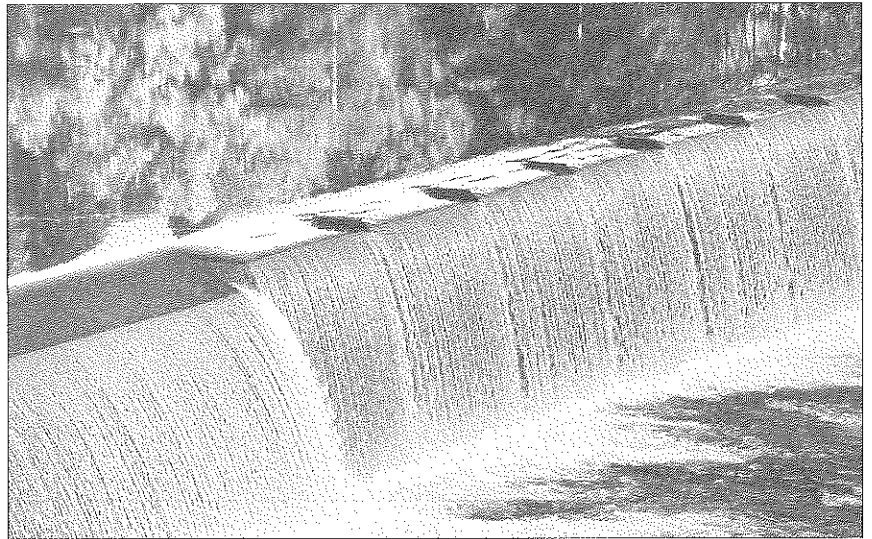
#### **Alternate Review Process for Smaller Reservoirs**

An alternative permit application process is available to persons interested in building small reservoirs storing less than 9.2 acre-feet of water or with dams less than 10 feet in height.

This process involves an expedited public interest review and requires the Department to grant a permit or deny the application within six months. Fees for this type of permit are substantially lower than those required for other types of permits. If you have questions about which type of application process is best for you, please call the Department.

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For more information, refer to ORS 537.409.





## 4. OTHER WATER RIGHTS

*authorizations for water use*

### Rights Through Customary Use

If water was used prior to enactment of the 1909 laws and has been used continuously since then, the property owner may have a “vested” water right. Since a water right is attached to the place of use, this is true even if the ownership of the property has changed.

A claim to a vested water right can be determined and made a matter of record only through a legal process known as an “adjudication proceeding.” The responsibility of the Department in the adjudication process is to gather information about the use of water and present its findings to the circuit court in the county where the water is used. The court then issues a decree which states who has the right to use water, the amount and location of water use and the priority date for each right. The Water Resources Department then issues water right certificates for each decreed right. The date of priority for a right determined through an adjudication proceeding is usually the date construction of the project began or the date when water was first used on the property.

Adjudication proceedings have been completed for most of the major stream systems in eastern and southern Oregon and a few of the larger tributaries to the Willamette River. Nearly 100 decrees have been issued on individual streams in Oregon. Water right certificates have been issued for most of the decreed rights. An adjudication proceeding is underway in the Klamath Basin which involves private water users, the Bureau of Reclamation, other federal agencies, and the Klamath Tribe.

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For more information, refer to ORS 539.240.

Legislation passed in 1987 required persons claiming pre-1909 rights in areas not yet adjudicated to file a surface water registration statement before December 31, 1992. Failure to file this registration statement by the deadline creates the rebuttable presumption that the person has no claim to a water right. These statements do not automatically assure rights will be granted to those who have filed. Each vested right will be determined through the courts in an adjudication proceeding.

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For more information, refer to ORS 539.300.

Adjudication proceedings are also used to determine the water rights for federal reservations of land. This includes Indian reservations and other federal reservations. Legislation passed in 1987, and amended in 1993, allows the director of the Department to act on behalf of the state of Oregon to negotiate settlements for these rights. These negotiations allow the director to include claimants, state and federal agencies, other water users and public interest groups in discussions that resolve and quantify the use of the water on these reservations.

## Limited licenses

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For more information, refer to ORS 537.143 and OAR 690-340-030.

Oregon law also provides a method for obtaining permission to divert and use water for a short-term or fixed duration. Under current law, certain types of uses can be allowed using a "limited license" provided that water is available and the proposed use will not injure other water rights. These authorizations allow landowners and developers to use water for purposes that do not require a permanent water right. A limited license may be available as soon as three weeks after filing an application with the Department.

Limited licenses are junior to all other uses and subject to revocation at anytime for any reason. There is no guarantee that water will be available.

Uses under a limited license may include but are not limited to road construction, fire fighting, general construction, rangeland management, and emergency use authorization. Uses of a longer duration may also qualify for limited licenses.

Generally, irrigation uses are not allowed under a limited license. In some cases, however, a limited license may be used to establish a crop that will not require further irrigation once established. In cases of severe drought, the Department may issue limited licenses so landowners can avoid irreparable crop damage by continuing the use of water after the close of the irrigation season. In addition, a limited license may be used for irrigation purposes in cases where the license is issued for use of stored water, provided certain criteria are met.

The Department conducts a review of an application for limited license to assess the proposed use, diversion, and location for water availability and public interest concerns such as threatened or endangered fish, water quality limited streams or scenic waterways. The Department provides an opportunity for the public to comment on a proposed limited license. If the Department finds that water is available and the proposed use will not impair or damage the public interest, a limited license is issued with terms and conditions similar to those of a water use permit. The license includes a condition that sets the term limit for water use.

## 5. TRANSFERRING WATER RIGHTS

*existing rights for new uses*

Even though a water right is attached to the land on which it was established, the use of the water is limited. Water can only be used beneficially and without waste up to the amount specified in the right.

The use of water by individuals within or outside of irrigation districts is restrained to three primary guidelines detailed in the water right certificate. For example, if a water right holder establishes the right to irrigate a particular 20-acre tract of land, the water cannot be diverted from a different point or used to irrigate other land. It cannot be used for any other purpose than the type of use spelled out in the water right.

The water right holder (generally the landowner—unless the use is within the boundary of an irrigation district) must file a transfer application with the Department to change a point of diversion, point of appropriation, the type of use, the place of use, or any combination of these. There are two types of transfers: permanent and temporary.

### *Permanent Transfers*

An application for a permanent transfer requires a map prepared by a Certified Water Right Examiner (CWRE). The applicant must fill out an application form describing the current water right and the proposed change. The applicant must also provide evidence of water use, land ownership, and, in most cases, compliance with local land use plans. The water must continue to be used in accordance with the current water right until the transfer is approved.

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Watermasters use cable cars to take stream measurements on rivers too large or unsafe to wade. Gathering streamflow information is an important part of the Department's commitment to protect water rights and Oregon's water resources.

To approve a transfer application, the Department must determine that the proposed change will not injure other water rights. The public is offered a chance to comment and protest if an existing water right would be injured. Only protests which claim injury to another water right can be accepted. The Department may attach conditions to an approval order to eliminate potential injury to other water rights. If conditional approval will not eliminate injury, the application is denied.

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For more information, refer to ORS 540.510—540.520.

After the transfer is approved, the applicant must make the change. In the case of a change in use or place of use, any portion of the water right involved in the transfer that is not changed is lost. Following completion of the change, a CWRE must prepare a final proof map and site report to be submitted with the applicant's claim of beneficial use. The map and claim of beneficial use describe the completed change and the extent of the modified water right. A new water right certificate will be issued to confirm the modified water right.

### *Temporary Transfers*

A water user may also temporarily change the place of use of a water right to allow a right attached to one parcel of land to be used on another parcel. A temporary transfer may not exceed a period of five years. This type of transfer is typically used for crop rotations or other rotational uses of water. The application for a temporary transfer is the same as the permanent transfer, however the required map does not have to be prepared by a CWRE.

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For more information, refer to ORS 540.523.

Oregon law does not authorize a temporary change in the type of use of a water right. A temporary point of diversion change may be made if it is necessary to convey water for a temporary change in place of use.

### *Other Transfers*

If a government action may cause a change in surface water levels that impairs the use of an authorized point of diversion, a special transfer process is available to change the point of diversion. This process is available for both certificated water rights and permits.

If an individual (not a company, government body, or other entity) has been using a diversion point for over ten years that is not the authorized point of diversion, the individual may request an abbreviated transfer process to change the certificated point of diversion to the current point of diversion. This change may only be made if there have been no complaints about the alternate point of diversion and if the change can take place without causing injury to other water rights.

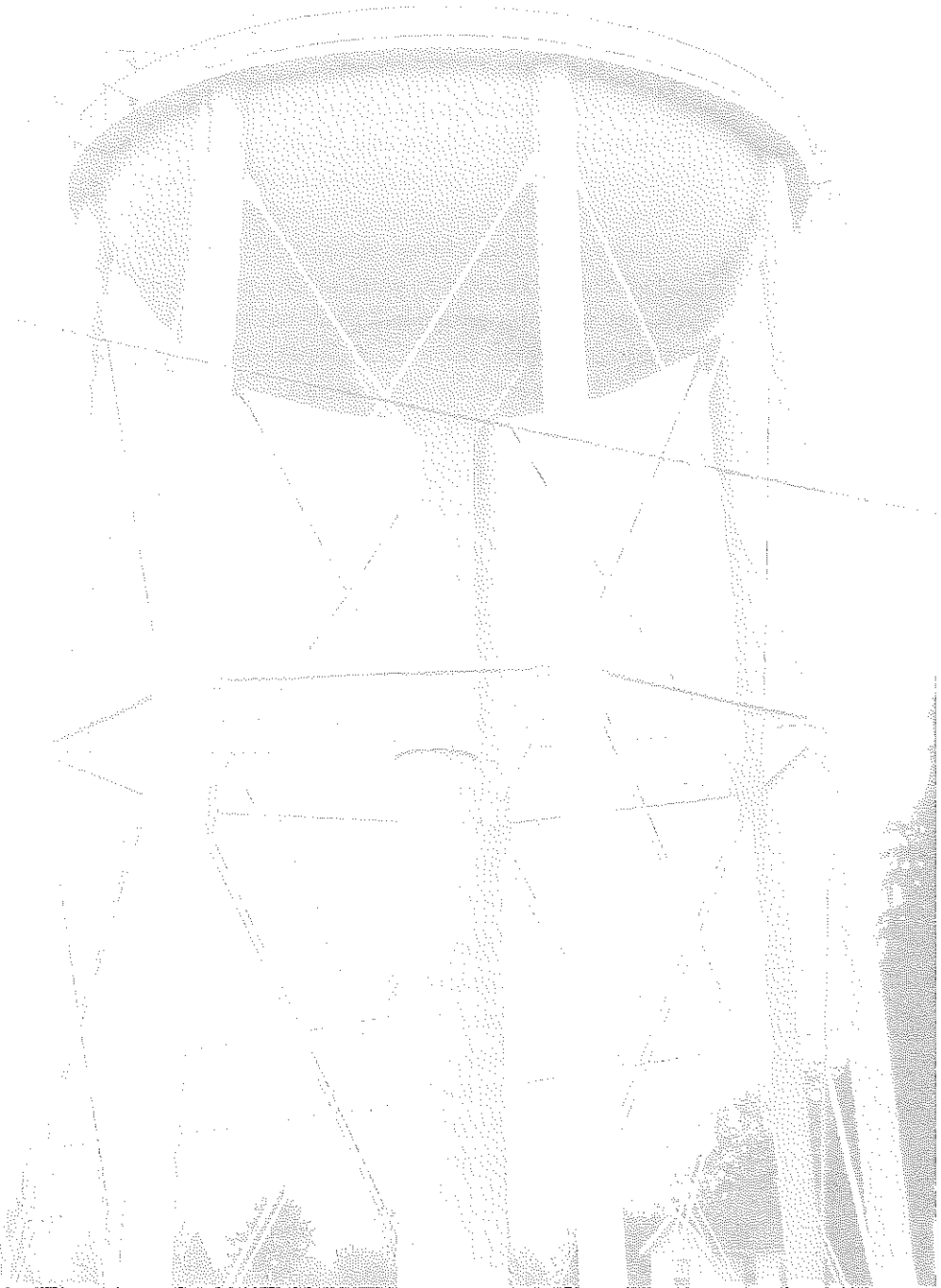
### *Transfers to Instream Use*

Water rights may also be transferred to instream uses, either permanently or temporarily. Temporary transfers to instream use are accomplished by way of a lease agreement and a transfer application.

Instream transfers must show that no injury will occur and that a beneficial use will be made of the water during the lease period, such as fishery habitat or flow augmentation for diluting contaminants and pollution. These transferred rights become instream water rights with the priority date of the original right. The water may not be diverted by any junior user while it is an instream right.

### *District Transfers*

Irrigation districts and certain other districts which deliver water may apply for a specific kind of transfer that allows the district to make several transfers in a single annual application. Districts may also take control and transfer unused water rights within the district after specific notification to the landowner.



## 6. CANCELING WATER RIGHTS

*loss of water rights through non-use*

A water right remains valid as long as it is not intentionally canceled and beneficial use of the water is continued without a lapse of five or more consecutive years. According to Oregon law, except in certain cases, if any portion of a water right (except those for municipal purposes) is not used for five or more consecutive years, that portion of the right is forfeited and reverts to the public as though the right had never existed.

For example, if your water right is for irrigation of 40 acres and you only irrigate 20, your water right can be canceled for the portion of land not irrigated for more than five years. However, diverting less than the full amount of water allowed under your right to irrigate the full 40 acres will not result in forfeiture, if you are ready, willing and able to use the full amount. If you have reduced the capacity of your water delivery system, you may lose any water not used beyond the capacity of your system.

Once a water right has been unused for five or more years, it is subject to cancellation even if the property owner begins to use the water again. Under the law, the right is forfeited and reuse does not reinstate the right. This is true even if the current owner did not own the property when use was discontinued. Under certain conditions, however, such as extreme drought and federal set-aside programs, non-use may exceed five years without forfeiture of the right.

Cancellation of a forfeited water right is not automatic. Cancellation requires a legal proceeding to determine whether or not the period of non-use has occurred. If more than 15 years have passed since the





period of non-use, the water right is not subject to cancellation under the law. A legal proceeding is not necessary if the landowner authorizes cancellation.

Administrative proceedings to determine the validity of a water right may be initiated by the Department. This usually happens when individuals with first-hand knowledge of non-use come forward and give sworn testimony in the hearing.

Once a water right is canceled, a landowner must apply for a new water use permit before beginning water use. The priority date of the original right is lost. Obtaining a new right is subject to current laws and basin programs.

## 7. CONSERVATION

*encouraging efficient water use*

The Department encourages the efficient use of water and practices that effectively conserve water resources.

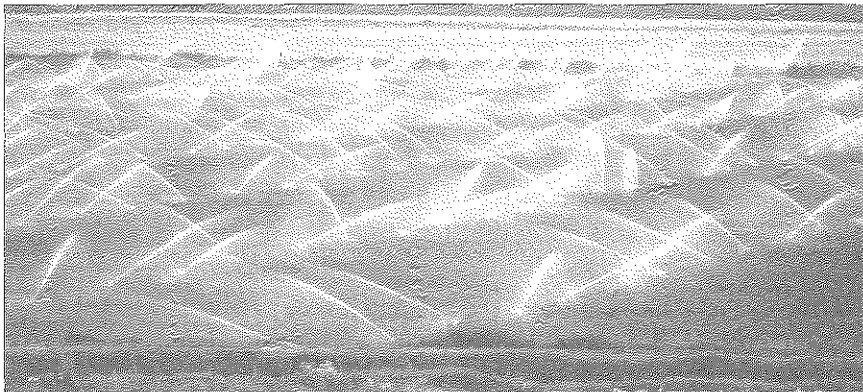
Oregon law currently requires that all water that is diverted by water right holders be used beneficially and without waste. This means that a right holder is required by law to use only the amount necessary for the intended purpose and no more, up to the limits of the water right.

### *Allocation of Conserved Water*

With improving technology and distribution methods, water users are now able to do the same work with much less water than was required in the past. However, the water saved by improved technology and efficient practices cannot automatically be put to uses beyond those specified in a water right. For example, if the installation of an improved irrigation system reduces water use from six acre-feet per year to only two-acre feet per year, the four acre-feet that is saved

cannot be used on other lands or for other purposes under the existing water right.

State law does allow a water right holder to submit a conservation proposal to the Commission and receive authorization to use a portion of the conserved water on additional lands, apply the water to new uses, or dedicate the water to instream use. The percentage of saved water that may be applied to new uses or lands depends on the amount of state or federal funding contributed to the conservation project. The law requires that the remaining percentage of the saved water be returned to the stream for improving instream flows, if needed. The original water right is reissued to reflect the quantity of water being used with the improved technology and the priority date stays the same. Another water right certificate is issued for the new use with either the same priority date or a priority date of one minute after the original water right. This process gives a water right holder the option of extending the use of their right without applying for a new permit or transferring an existing permit.



## 8. FINDING WATER RIGHTS

*determining if you have a water right*

All legally established water rights, whether they are incomplete rights under permits, undetermined claims through ground water registration or vested right statements, or completed rights, are on record in the Salem office of the Water Resources Department. Records of water rights are also maintained in the local watermasters' offices. Contact the Department or your watermaster to determine if there are water rights of record for property you own or want to purchase. Watermaster offices are listed by county beginning on page 43. You may need to pay a fee if you want the Department to research and copy water right files. Please see pages 46-47 for a schedule of charges.

You will need to provide a copy of the legal description or a current county assessor's tax lot map of the property. If the property lies within a platted and recorded subdivision, a copy of the recorded plat should accompany the legal description. Any maps submitted need to include the township, range and section of the property involved and have a reference corner such as a section corner.

Keep in mind that while the Department or watermaster can tell you if there is a water right on file for your tract of land, they cannot guarantee that the water has been used continuously and that the right is not subject to cancellation. If you intend to purchase property with a water right of record, it is a good idea to check with neighbors of the property owner to see if the water right has been used continuously over the last 15 years.



## 9. ENFORCING WATER LAWS

*watermasters and field staff protecting rights and resources*

In order to ensure that water laws are obeyed, and to protect the rights of water users, personnel from the Water Resources Department, in cooperation with land owners, inspect wells and water diversion systems. Inspections are usually conducted by watermasters and well inspectors who are employees of the Department. Inspections are also made by the Department's ground water hydrologists.

Watermasters respond to complaints from water users and determine in a time of water shortage who has the right to use water. They may shut down junior users in periods of shortage. Watermasters work with all of the water users on a given water system to ensure that the users voluntarily comply with the needs of more senior users. Occasionally, watermasters take more formal actions to obtain the compliance of unlawful water users or those who are engaged in practices which "waste" water. The waste of water means the continued use of more water than is needed to satisfy the specific beneficial use for which the right was granted.

Watermasters and field staff also provide general information to the public, oversee enforcement of minimum streamflows, inspect wells and dams for safety violations, and measure and monitor streamflows for future planning needs.

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Headgates control the flow of water through ditches and canals that serve water users throughout Oregon. As new water rights are more difficult to obtain—due to lack of water availability in many Oregon streams—water will be gained by transferring older, existing rights.



## 10. REGION OFFICES AND WATERMASTER DISTRICTS

### Watermaster Region Managers

#### NORTHWEST

**Dave Jarrett**  
158 12th St. N.E.  
Salem, OR 97301-4172  
Phone: (503) 378-8455, X220  
Fax: (503) 378-8130

#### NORTH CLACKAMAS

**Michael Ladd**  
3920 Westgate  
Pendleton, OR 97801  
Phone: (541) 278-5456  
Fax: (541) 278-0287

#### EASTERN

**Jerry Rodgers**  
Baker County Courthouse  
1995 3rd Street, Suite 180  
Baker City, OR 97814  
Phone: (541) 523-8224 X24  
Fax: (541) 523-7866

#### SOUTH CENTRAL

**Robert E. Main, Jr.**  
1340 N.W. Wall St.,  
Suite 100  
Bend, OR 97701-1939  
Phone: (541) 388-6669  
Fax: (541) 388-5101

#### SOUTHWEST

**Al Cook**  
Grants Pass Municipal Bldg.  
101 NW "A" Street  
Grants Pass, OR 97526  
Phone: (541) 471-2886  
Fax: (541) 474-5389

### Watermasters by County

#### BAKER

**Rick Lusk, District 8**  
Baker County Courthouse  
1995 3rd Street, Suite 180  
Baker City, OR 97814  
Phone: (541) 523-8224  
Fax: (541) 523-7866

#### BENTON

**Bill Ferber, District 16**  
158 12th St. N.E.  
Salem, OR 97301-4172  
Phone: (503) 378-8455 X375  
Fax: (503) 378-8130

#### CLACKAMAS

**Bill Ferber, District 16**  
158 12th St. N.E.  
Salem, OR 97301-4172  
Phone: (503) 378-8455 X375  
Fax: (503) 378-8130

#### CLATSOP

**Greg Beaman, Dist. 1**  
4000 Blimp Blvd.  
Tillamook, OR 97141  
Phone: (503) 842-2413 X119  
Fax: (503) 842-3680

#### COLUMBIA

**Greg Beaman, Dist. 1**  
4000 Blimp Blvd.  
Tillamook, OR 97141  
Phone: (503) 842-2413 X119  
Fax: (503) 842-3680

#### COOS

**Lloyd Vangordon,**  
District 19  
Coos Co. Courthouse Annex  
290 N. Central Street  
Coquille, OR 97423  
Phone: (541) 396-3121 X254  
Fax: (541) 396-6233

#### CROOK

**Kyle Gorman, Dist. 11**  
1340 NW Wall Street,  
Suite 100  
Bend, OR 97701-1939  
Phone: (541) 388-6669  
Fax: (541) 388-5101

#### CURRY

**Lloyd Vangordon,**  
District 19  
Coos Co. Courthouse Annex  
290 N. Central Street  
Coquille, OR 97423  
Phone: (541) 396-3121 X254  
Fax: (541) 396-6233

#### DESCHUTES

**Kyle Gorman, Dist. 11**  
1340 NW Wall Street,  
Suite 100  
Bend, OR 97701-1939  
Phone: (541) 388-6669  
Fax: (541) 388-5101



## DOUGLAS

Dave Williams, Dist. 15  
Douglas Co. Courthouse  
1036 SE Douglas, Rm. 306  
Roseburg, OR 97470  
Phone: (541) 440-4255  
Fax: (541) 440-6264

## GILLIAM/GRANT

Kelly Rise, District 4  
Grant County Court-  
house  
PO Box 261  
Canyon City, OR  
97820  
Phone: (541) 575-0119  
Fax: (541) 575-2248

## HARNEY

Mitch Lewis, Dist. 10  
Harney County  
Courthouse  
PO Box 699  
Burns, OR 97720  
Phone: (541) 573-2591  
Fax: (541) 573-8311

## HOOD RIVER

Larry Toll, District 3  
Courthouse Annex B,  
Rm. 218  
421 East 7th St.  
The Dalles, OR 97058  
Phone: (541) 298-4110  
Fax: (541) 298-2459

## JACKSON

Larry Menteer,  
District 13  
Jackson County  
Courthouse  
10 S. Oakdale, Rm. 106  
Medford, OR 97501  
Phone: (541) 774-6187  
Fax: (541) 774-6187

## JEFFERSON

Kyle Gorman, Dist. 11  
1340 NW Wall Street,  
Suite 100  
Bend, OR 97701-1939  
Phone: (541) 388-6669  
Fax: (541) 388-5101

## JOSEPHINE

Bruce Sund, Dist. 14  
942 SW 6th St. Suite E  
Grants Pass, OR 97526  
Phone: (541) 471-2886  
Fax: (541) 471-2876

## KLAMATH

Del Sparks, District 17  
5170 Summers Lane  
Klamath Falls, OR 97603  
Phone: (541) 883-4182 X223  
Fax: (541) 883-3324

## LAKE

Dennis R. Glender,  
District 12  
513 Center Street  
Lakeview, OR 97630  
Phone: (541) 947-6038  
Fax: (541) 947-6063

## LANE

Michael Mattick,  
District 2  
Central Lane Justice Court  
220 N. 5th Street  
Springfield, OR 97477  
Phone: (541) 682-3620  
Fax: (541) 746-1861

## LINCOLN

Bill Ferber, District 16  
158 12th St. N.E.  
Salem, OR 97301-4172  
Phone: (503) 378-8455 X375  
Fax: (503) 378-8130

## LINN

Michael Mattick,  
District 2  
Central Lane Justice Court  
220 N. 5th Street  
Springfield, OR 97477  
Phone: (541) 682-3620  
Fax: (541) 746-1861

## MALHEUR

Ron Jacobs, District 9  
Courthouse 4  
251 B Street West  
Vale, OR 97918-1397  
Phone: (541) 473-5130  
Fax: (541) 473-5522

## MARION

Bill Ferber, District 16  
158 12th St. N.E.  
Salem, OR 97301-4172  
Phone: (503) 378-8455 X375  
Fax: (503) 378-8130

## MORROW

Tony Justus, District 5  
116 SE Dorion Avenue  
Pendleton, OR 97801  
Phone: (541) 278-5456  
Fax: (541) 278-0287

## MULTNOMAH

Greg Beaman, Dist. 1  
4000 Blimp Blvd.  
Tillamook, OR 97141  
Phone: (503) 842-2413 X119  
Fax: (503) 842-3680

## POLK

Bill Ferber, District 16  
158 12th St. N.E.  
Salem, OR 97301-4172  
Phone: (503) 378-8455 X375  
Fax: (503) 378-8130

**SHERMAN**

**Larry Toll, District 3**  
Courthouse Annex B,  
Rm. 218  
421 East 7th St.  
The Dalles, OR 97058  
Phone: (541) 298-4110  
Fax: (541) 298-2459

**TILLAMOOK**

**Greg Beaman, Dist. 1**  
4000 Blimp Blvd.  
Tillamook, OR 97141  
Phone: (503) 842-2413 X119  
Fax: (503) 842-3680

**UMATILLA**

**Tony Justus, Dist. 5**  
116 SE Dorion Avenue  
Pendleton, OR 97801  
Phone: (541) 278-5456  
Fax: (541) 278-0287

**UNION / WALLOWA**

**Shad Hattan, Dist. 6**  
10507 N. McAlister Rd. 3  
La Grande, OR 97850-9801  
Phone: (541) 963-1031  
Fax: (541) 963-9637

**WASCO**

**Larry Toll, District 3**  
Courthouse Annex B,  
Rm. 218  
421 East 7th St.  
The Dalles, OR 97058  
Phone: (541) 298-4110  
Fax: (541) 298-3547

**WASHINGTON**

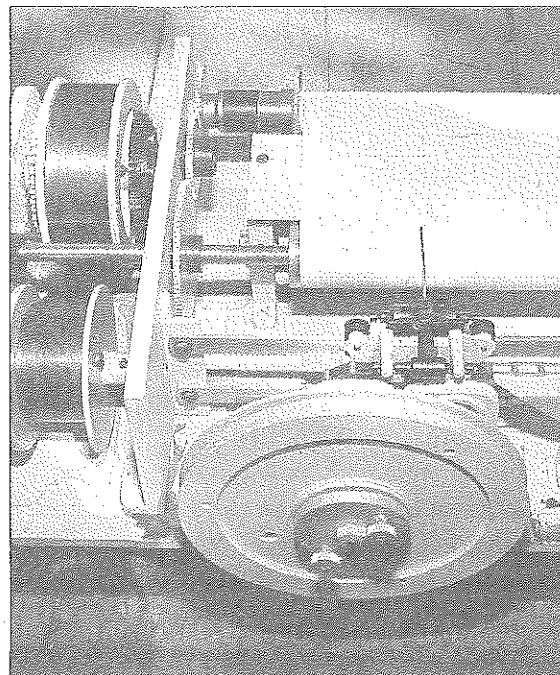
**Darrel Hedin, Dist. 18**  
111 NE Lincoln, 220  
Hillsboro, OR 97124  
Phone: (503) 846-4881  
Fax: (503) 846-4887

**WHEELER**

**Kelly Rise, District 4**  
Grant County Courthouse  
201 S. Humbolt St.,  
Suite 180  
Canyon City, OR 97820  
Phone: (541) 575-0119  
Fax: (541) 575-2248

**YAMHILL**

**Bill Ferber, District 16**  
158 12th St. N.E.  
Salem, OR 97301-4172  
Phone: (503) 378-8455 X375  
Fax: (503) 378-8130



## II. FEE SCHEDULE

### Application for a water use permit

#### *Examination Fee*

For each application: ----- \$250

This fee is based on staff costs associated with the processing and review of a permit application.

*plus*

For surface water and ground water applications:

First cubic foot per second (cfs)

(or fraction thereof) ----- \$150

Each additional cfs

(or fraction thereof) ----- \$75

*and/or*

To store water:

Each acre-foot (af) up to 10 af ----- \$10

Each additional af ----- \$1.00

(up to 1,000)

Each additional af ( 1,000) ----- \$0.25

Exclusive Appropriation of Stored Water

Base fee ----- \$100

Each acre-foot (af) up to 10 af ----- \$10

Each additional af up to 1,000 af ----- \$1.00

Each additional af 1,000 af ----- \$0.25

*The examination fee must be paid to file the application and establish a tentative priority date. This fee is non-refundable.*

#### *Permit Recording Fee*

For all approved applications: ----- \$175

*The permit recording fee may be paid with the exam fee and refunded if the application is not approved. The fee can also be paid at the time of Final Order when the permit is ready to be issued.*

## Small Ponds

### *Small Reservoirs*

(less than 9.2 acre-feet or dams less than 10 feet in height)

Each acre-foot: ----- \$10  
 Maximum application fee: ----- \$100

## Transfers of Water Rights

### *Regular transfers and permit amendments*

Base fee: ----- \$200  
 Each additional request: ----- \$100  
 Each cfs ----- \$100  
 or fraction thereof, requested in addition to the first cfs (for changes in place of use, type of use, or water exchanges)

### *Temporary transfers*

Base fee: ----- \$200  
 Each cfs ----- \$50  
 or fraction thereof, and each additional cfs, or fraction thereof (for non irrigation uses) or  
 Each acre of irrigated land: ----- \$0.25

## Limited Licenses

### *Examination and recording:*

First point of diversion ----- \$100  
 Each additional point of diversion ----- \$10

## Other Fees

For stock watering outside of riparian areas:	
Examination -----	\$40
Recording (approved application) -----	\$10
Exchange of water:	
Examination of application -----	\$250
Water Right Research:	
per hour (\$10 Minimum) -----	\$20
Recording of documents:	
for first page -----	\$10
for each additional page -----	\$5
Copying of documents:	
for first page -----	\$2
for each additional page -----	50
Certification of copies:	
for each certification -----	\$10
Blueprinting: -----	Actual cost of work
Filing a formal protest	
to new water use permits: -----	\$200
Filing a protest to other applications: -----	\$25
(transfers, extensions)	
Extension of time: -----	\$100
District re-mapping: -----	\$250
plus 10 per acre	
Copy of a proposed final order	
and final order: -----	\$10
(provided free to the applicant)	
Assignments: -----	\$25

## APPENDIX A

### *other development permits*

Developing a water right often entails grading, trenching or other types of construction in waterways, riparian areas and wetlands. In addition to a water use permit, other permits from local, state or federal agencies may be required. Check first with your local city or county planning office.

#### *Activities in wetlands and waterways are regulated by:*

- The *Division of State Lands* (DSL) under the state Removal-Fill Law (503) 378-3805
- The *U.S. Army Corps of Engineers* (Corps) under the federal Clean Water Act and Rivers and Harbors Act (503) 808-4373
- The *Oregon Department of Forestry* under the Forest Practices Act (503) 945-7470
- The *U.S. Natural Resource Conservation Service* (NRCS) under the Food, Agriculture, Conservation and Trade Act—check government listings
- Some city and county land use ordinances

#### *What Areas are Regulated?*

- Rivers, streams and most creeks
- Estuaries and tidal marshes
- Lakes and some ponds
- Permanent and seasonal wetlands

Regulations apply to all lands, public or private. A wetland does not have to be mapped by the state or otherwise “designated” to fall under the regulations. If you are uncertain if there are regulated wetlands on your property, contact DSL for assistance

### *What Activities are Regulated?*

- Placement of fill material
- Alteration of stream bank or stream course
- Ditching and draining
- Plowing/disking non-farmed wetlands
- Excavation or dredging of material
- In-water construction (may also require a DSL lease)
- For some activities, joint application forms can be obtained from DSL or the Corps

### *What Activities are Exempt?*

- Some routine maintenance activities
- Established, ongoing agricultural activities and grazing
- Some minor projects involving small amounts of fill or removal

### *How are Laws Enforced?*

The best enforcement is to prevent illegal wetland alterations through information and education. However, when violations do occur, a variety of enforcement tools may be used, including restoration orders, fines of up to \$10,000 per day (DSL), civil and/or criminal charges.

Contact your local city or county planning office, DSL or the Corps for details and clearance to proceed with your project and to determine if you are impacting an area that is regulated.

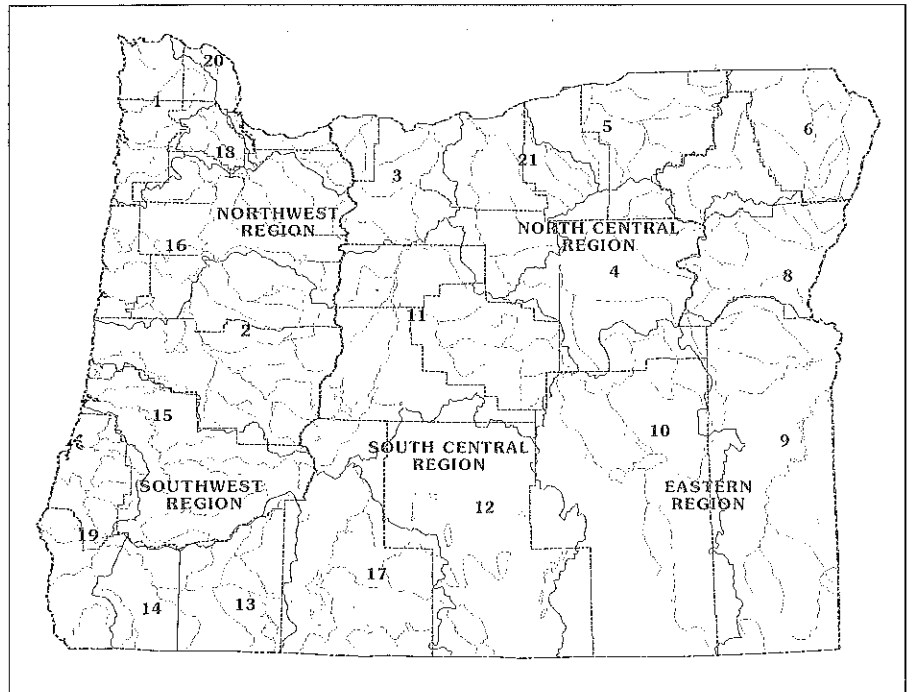
To receive a free copy of *Natural Resource Agencies: Permit and License Directory*, contact the Oregon Economic Development Department at:

1 (800) 233-3306 or (503) 986-0166.





## Oregon's Watermaster Districts



District	Watermaster	Phone
1	Greg Beaman	(503) 842-2413 Ext. 119
2	Mike Mattick	(541) 746-1856
3	Larry Toll	(541) 298-4110
4	Kelly Rise	(541) 575-0119
5	Tony Justus	(541) 278-5456
6	Shad Hattan	(541) 963-1031
8	Rick Lusk	(541) 523-8224
9	Ron Jacobs	(541) 473-5130
10	Mitch Lewis	(541) 573-2591
11	Kyle Gorman	(541) 388-6669
12	Vacant	(541) 388-6669
13	Larry Menteer	(541) 776-7056
14	Bruce Sund	(541) 471-2886
15	Dave Williams	(541) 440-4255
16	Bill Ferber	(503) 378-8455 Ext. 375
17	Del Sparks	(541) 883-4182 Ext. 223
18	Darrell Hedin	(503) 846-4881
19	Lloyd VanGordon	(541) 396-3121 Ext. 254
20	Juno Pandian	(503) 397-0633
21	Verm Church	(541) 384-4207



State of Oregon  
**Water Resources Department**  
158 12th Stree NE  
Salem, OR 97301-4172  
(503) 378-8455  
[www.wrd.state.or.us](http://www.wrd.state.or.us)

State of Oregon  
Department of Environmental Quality

Memorandum

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**To:** Environmental Quality Commission **Date:** 6/12/02  
**From:** Keith Johnson, Cross Programs Section Manager  
**Subject:** Briefing materials on Agency Toxics efforts to date

Please find enclosed the following items:

1. Copy of Executive Order 99-13
2. Fact Sheet, describing current efforts of the DEQ in response to the aforementioned Executive Order
3. Short Term strategies, approved by the EMT, for implementation by the DEQ in support of our Agency-Wide Toxics Strategy
4. Diagram of general approach to Toxics work
5. Process diagram for the development of Toxics strategies, and Executive Measures, yet to come.

These documents, as a group, are an important body of work that outlines our Agency strategy in assessing strategies to protect Human Health and the Environment from toxics. Clearly these are initial steps, but are an important foundation upon which we will continue and expand our initiatives.

If you have any questions, please feel free to contact me directly at (503)-229-6431.

**EXECUTIVE ORDER NO. EO - 99 - 13**

**ELIMINATION OF PERSISTENT, BIOACCUMULATIVE, AND TOXIC POLLUTANTS**

**WHEREAS**, the quality of Oregon's environment today is the result of many years of combined efforts by the public, government agencies, and industry.;

**WHEREAS**, recent international studies have concluded that contaminants that are persistent, bioaccumulative, and toxic present the greatest risk to human health and the environment, and are not adequately addressed;

**WHEREAS**, these persistent, bioaccumulative, and toxic pollutants (PBTs) are associated with a broad range of adverse human health impacts such as cancer, effects on the nervous system, reproductive and development problems and hormonal disruption;

**WHEREAS**, PBTs accumulate in the tissues of plants and animals and become increasingly concentrated as they move up the food chain;

**WHEREAS**, PBTs remain an environmental and health concern long after they are used, generated as waste, or released into the environment;

**THEREFORE, IT IS HEREBY ORDERED AND DIRECTED:**

- 1) In order to address the presence of the most threatening chemical substances in Oregon's environment, the Oregon Department of Environmental Quality shall lead a state-wide effort to eliminate the releases of PBTs into the environment.
- 2) Oregon's initial goals in this effort shall be to:
  - Outline a range of approaches that might be undertaken in Oregon to identify, track and eliminate the release of PBTs into the environment by the year 2020;
  - Evaluate state, national, and international efforts to eliminate PBTs;
  - Use available information to identify which PBTs are generated in Oregon, determine what activities generate PBTs, estimate the amounts being generated, and identify missing data; and
  - Identify ways to utilize education, technical assistance, pollution prevention, economic incentives, government procurement policies, compliance, and permitting activities to eliminate PBT releases.

**EXECUTIVE ORDER NO. EO - 99 - 13**

**Page Two**

- 3) All Oregon citizens, businesses, and governments are encouraged to participate in efforts to implement this Executive Order.

Done at Salem, Oregon, this 24 day of September, 1999.

/S/

John A. Kitzhaber, M.D.

GOVERNOR

ATTEST:

/S/

Phil Keisling

SECRETARY OF STATE

## Protecting Human Health, Environment from Toxics

### Background

This fact sheet summarizes actions the Oregon Department of Environmental Quality (DEQ) is taking to protect human health and the environment from toxic substances.

In September 1999, the Governor signed Executive Order EO-99-13, which directs DEQ to deal with the problem of persistent bioaccumulative toxics (PBTs) in the environment. Specifically, the Executive Order directs DEQ to:

- Outline a range of approaches that might be undertaken in Oregon to identify, track and eliminate the release of PBTs into the environment by the year 2020
- Evaluate state, national and international efforts to eliminate PBTs
- Use available information to identify which PBTs are generated in Oregon, determine what activities generate PBTs, estimate the amounts being generated, and identify missing data
- Identify ways to utilize education, technical assistance, pollution prevention, economic incentives, government procurement policies, compliance, and permitting activities to eliminate PBT releases

### Actions taken by DEQ to address toxics

DEQ is carrying out the goal of the Executive Order in a variety of ways. DEQ has formed an agency-wide toxics work group to identify strategies for reducing toxics. The work group is developing strategies to reduce toxic releases to air, water and land, focusing on toxics that pose the greatest hazard and have the longest-lasting impact on the environment and human health. This effort will focus initially on mercury.

Actions DEQ is currently taking include:

- Funding and co-sponsoring efforts to remove and properly manage products containing mercury and other toxics, including:
  - Local collection centers to help small businesses and households properly manage toxics
  - Current work with the auto recycling industry, car crushers and steel mills to remove mercury car switches before crushing cars

- Promotion of fluorescent lamp recycling to commercial and industrial facilities
- Removal of mercury from school laboratories
- Mercury thermometer collection events
- Identifying sources of mercury pollution in the Willamette River, and developing a plan to reduce these sources
- Developing proposed legislation to improve Oregon's ability to clean up mercury contamination from abandoned and inactive mine sites

Other toxics-related activities include:

- Developing water quality standards for 250 toxic pollutants. Once adopted by the Oregon Environmental Quality Commission, DEQ will use these water quality standards to restrict pollutant discharges into Oregon's waters
- Developing a community-based program to reduce people's exposure to toxic air pollution

### What's next

DEQ is committed to work collaboratively with industries, government agencies, citizens and environmental organizations to identify Oregon's biggest toxics problems, and develop cost-effective solutions.

DEQ's toxics work is being carried out under existing authorities such as the federal Clean Air Act, federal Clean Water Act, and Oregon's Toxic Use Reduction Law. DEQ's current emphasis is to develop and implement a range of approaches to significantly cut toxic releases. As DEQ outlines the range of approaches that it might take in Oregon to identify, track and eliminate the release of PBTs into the environment by the year 2020, the agency may identify the need for additional statutory authorities and additional resources, for DEQ and for other agencies or entities.

### For more information:

For more information, contact Keith Johnson, DEQ Land Quality Division, Portland, at (503) 229-6431. Alternative formats of this document can be made available by contacting DEQ's Office of Communications & Outreach, Portland, at (503) 229-5696.



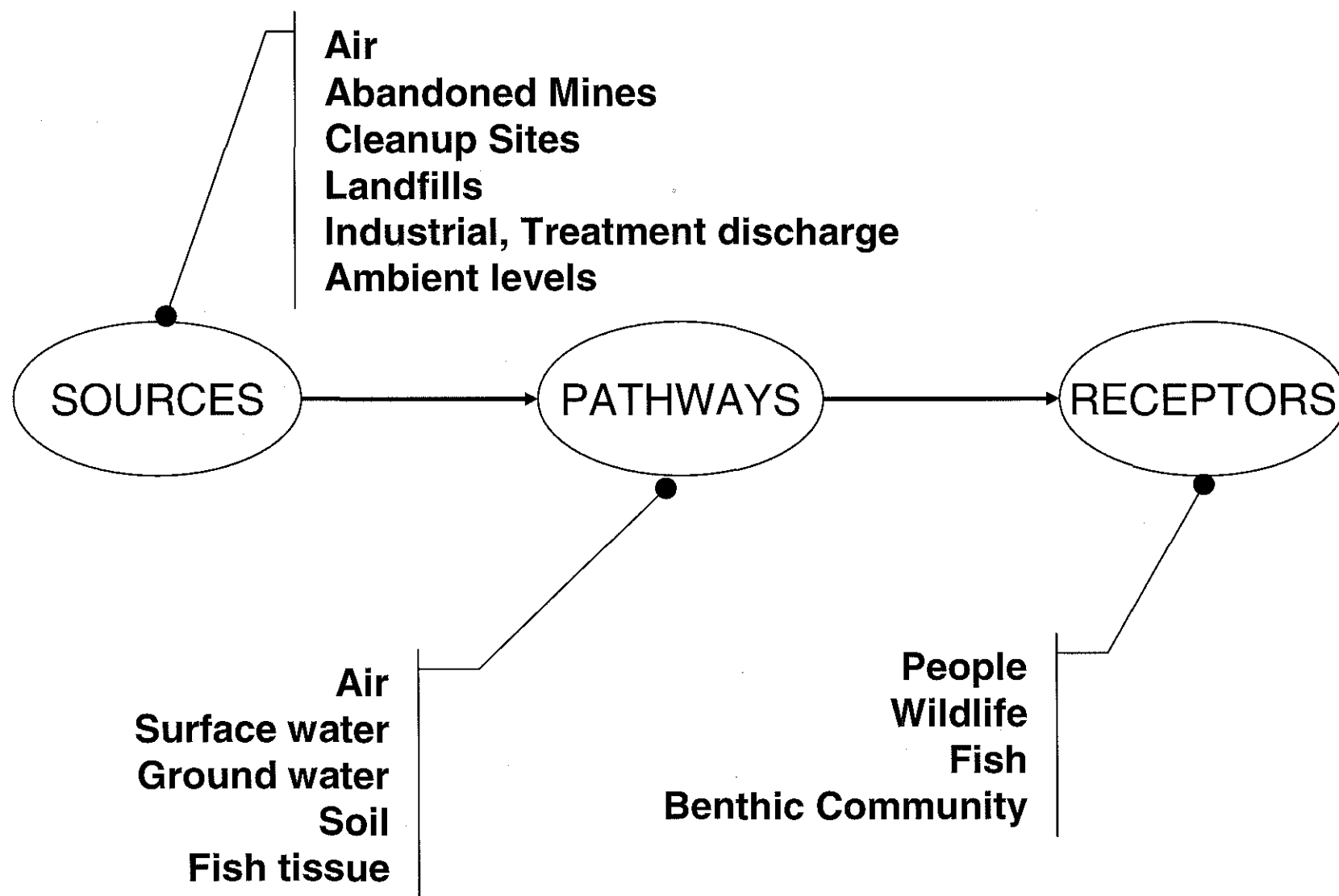
State of Oregon  
Department of  
Environmental  
Quality

Land Quality Division,  
Headquarters,  
811 SW 6<sup>th</sup> Ave.  
Portland, OR 97204  
Phone: (503) 229-6431  
(800) 452-4011  
Fax: (503) 229-6977  
Contact: Keith Johnson  
[www.deq.state.or.us](http://www.deq.state.or.us)

# Mercury Activities By Key Goals

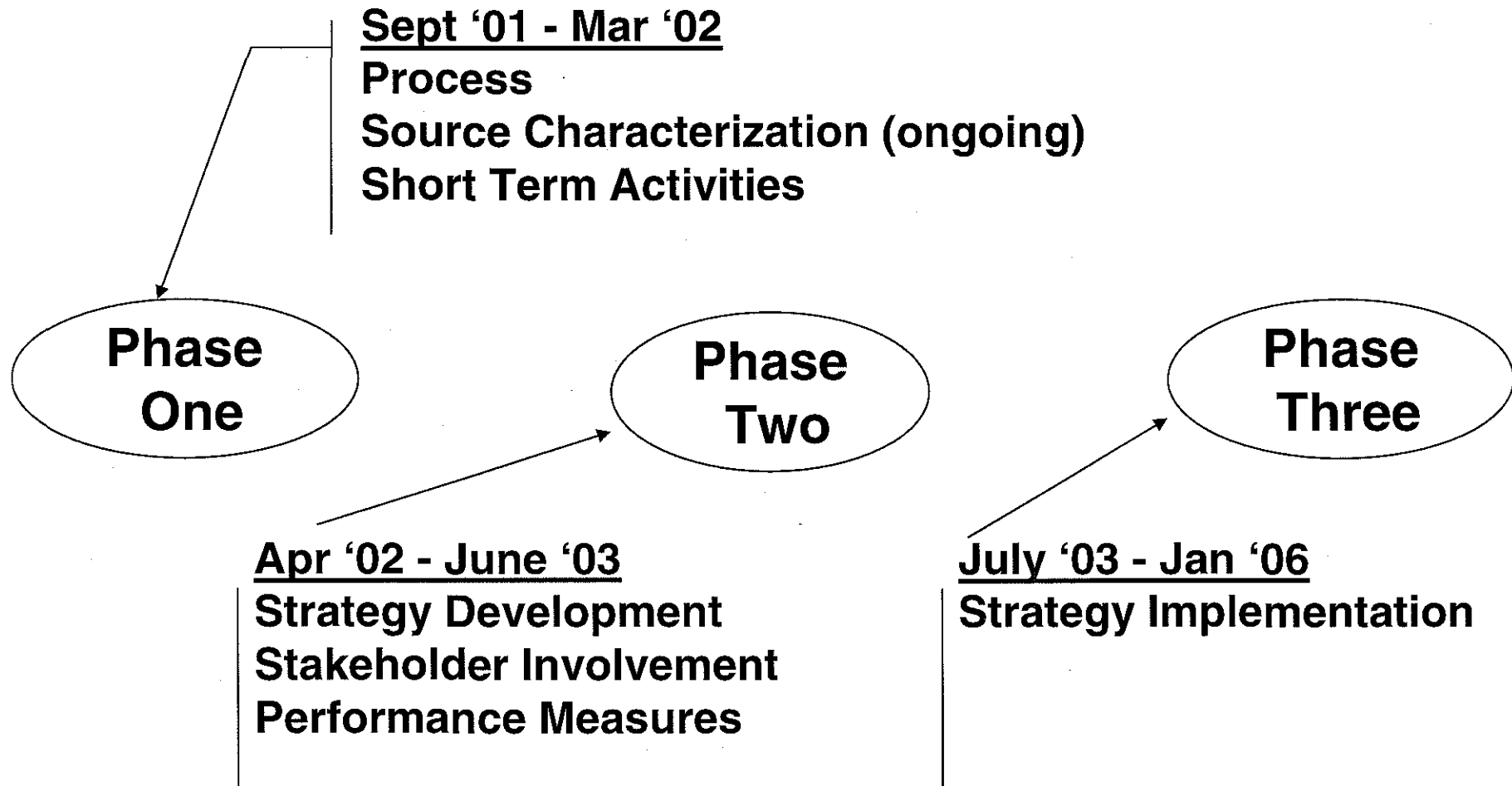
Activities Underway	New Activities
<p><b>1. Improve Mercury Data</b></p> <p><u>Air Quality</u> Place high priority on improving mercury emission factors and activity levels used to estimate air emissions</p> <p><u>Land Quality (Cleanup)</u> Participate in interagency Dept of Geology-chaired task force to prioritize former mine sites</p> <p>Give priority to assessment of mine sites because many sites have known or suspected mercury</p> <p><u>Land Quality (Solid Waste)</u> Evaluate data related to mercury-containing products as part of a landfill waste composition study</p>	<p><b>1. Improve Mercury Data</b></p> <p><u>Air Quality</u> Review approx 20 HAP Title V permits for mercury information to verify if any mercury info has been updated since original application (source test data, change in emission factor)</p> <p><u>Land Quality (Solid Waste)</u> Develop list of top mercury-containing products</p> <p><u>Lab</u> Update LASARFACE (tool to extract data from lab Dbase) with mercury data. Data includes fish, sediment, water samples.</p> <p><u>All (all divisions)</u> Characterize mercury sources, activities that generate mercury, estimate emissions</p> <p>Analyze literature for emission estimates and state, national, international data on mercury reduction strategies</p> <p>Review permits for sources with cross program discharges</p>
<p><b>2. Prevent Mercury Releases</b></p> <p><u>Land Quality (Hazardous Waste)</u> Co-sponsor switching mercury switches out of vehicles with auto repair shops</p> <p>Develop auto mercury switch removal factsheet as required by HB 3007</p> <p>Collect mercury from school labs</p> <p><u>Land Quality (Solid Waste)</u> Provide technical assistance and funding to county CEG/HHW planning efforts focusing on mercury-containing wastes</p> <p>Fund counties building permanent CEG/HHW collection facilities</p> <p>Fund grant that promotes recycling of fluorescent tubes in commercial buildings</p> <p>Conduct HHW collection events with mercury thermometer collection.</p> <p>Sponsor mercury collection at Southern Oregon mining conference in July, 2002</p> <p><u>Water Quality</u> Complete mercury TMDL for Willamette River</p> <p>Include toxic prevention and remediation for toxics (not limited to mercury) into funding for nonpoint source grants under Clean Water Act Section 319 grants distrib by DEQ</p>	<p><b>2. Prevent Mercury Releases</b></p> <p><u>Air Quality/Land Quality (Solid Waste)</u> Partner with Municipal Waste Combustors and garbage haulers that service combustors to explore feasibility of product waste separation to reduce (toxic, not just mercury) releases</p> <p><u>Lab</u> For labs DEQ accredits, recommend the labs use test methods that do not contain mercury</p> <p><u>Water Quality</u> Conduct representative study of suspected mercury point sources to quantify the nature of ongoing mercury discharges.</p> <p><u>All (divisions)</u> Meet with DEQ staff statewide to explore how to incorporate toxics activities in ongoing work</p> <p>Explore grant opportunities to fund toxics work</p>
<p><b>3. Cleanup Mercury</b></p> <p><u>Land Quality (Cleanup)</u> Develop agreements with Federal Land Managers on investigation and cleanup of former mines (includes mercury-related mines)</p>	<p><b>3. Cleanup Mercury</b></p>
<p><b>4. Promote Public Awareness</b></p>	<p><b>4. Promote Public Awareness</b></p> <p><u>All (divisions)</u> Develop generic mercury factsheet and add to website</p> <p><u>Water Quality</u> Conduct public outreach on water quality mercury concerns, including fish consumption concerns</p>

# Approach to Toxics Work





# Schedule of Activities



### Oregon Environmental Quality Commission Meeting

June 6-7, 2002

Columbia Room

Best Western New Kings Inn

1600 Motor Court NE, Salem, Oregon

Tape #  
↓

#### Thursday, June 6, 2002

The Oregon Environmental Quality Commission and Oregon Water Resources Commission will hold a joint meeting from 11:00 a.m. to 5:30 p.m. in the Columbia Room of the Best Western New Kings Inn. A reception for Commissioners will follow the meeting.

1  
11:00 Introduction of Commissioners - 11:05A

1  
11:20 Opening Comments - 11:13A  
Stephanie Hallock, Director of the Department of Environmental Quality (DEQ), and Paul Cleary, Director of the Water Resources Department (WRD), will set the context for the joint Commission meeting.

1, 2, 3  
11:30 Overview of Water Quantity and Water Quality Authorities - 11:25A  
Meg Reeves, WRD Deputy Director, and Mike Llewelyn, DEQ Water Quality Administrator, will describe the state water law and federal Clean Water Act as a foundation for considering the intersection of these authorities in Oregon.

12:30 Working Lunch on Relationship Building, the Rogue Room

#### 1:30 The Intersection of Water Quantity and Water Quality Programs

3, 4  
1:30 Interagency Coordination - 1:29P  
Dwight French, WRD Water Rights Manager, and Karen Tarnow, DEQ Assistant to the Water Quality Administrator, will present the 1997 recommendations of the Water Quality and Quantity Task Force. On-going and future interagency coordination on issues identified by the Task Force will be discussed.

4, 5, 6  
2:15 TMDL Development and Implementation - 2:19P  
Dick Pederson, DEQ Watershed Management Section Manager, will describe the purpose and schedule for developing Total Maximum Daily Loads (TMDLs) to improve the quality of Oregon's impaired waterways. Dick Pedersen will also provide an overview of the Umatilla basin TMDL, which demonstrates the clear link between water quantity and water quality impacts. Don Butcher, DEQ Eastern Region TMDL Specialist, and Mike Ladd, WRD North Central Region Manager, will describe several activities currently being undertaken by a variety of stakeholders in the basin to restore streamflows. Tom Paul, WRD Field Services Administrator, and Dick Pedersen will summarize lessons learned and tools available for addressing streamflow issues for improving water quality.

3:30 Break

TAPE #  
6, 7

3:45 Water Reuse Initiative - 4:00p  
Mike Llewelyn will introduce DEQ's Water Reuse Initiative, an effort to encourage new ways to reuse wastewater. Mike Llewelyn and Tom Paul will provide an overview of DEQ and WRD water reuse responsibilities and will discuss opportunities and challenges related to the initiative.

7, 8

4:30 **Commission Discussion: Challenges and Opportunities** - 4:48p  
Commissioners will discuss current issues and opportunities associated with merging water quality and water quantity requirements. A panel of DEQ and WRD staff will be available to answer questions.

8

5:20 **Closing Comments from Commissioners** - 5:36p

A joint reception will provide an opportunity for informal discussion and relationship building among Commissioners. The reception will start at 6:00 p.m. in the Rogue Room of the Best Western New Kings Inn.

**Friday, June 7, 2002**

At approximately 8:00 a.m., the Commission will hold an executive session to consult with counsel concerning legal rights and duties regarding current and potential litigation against the Department. Executive session is held pursuant to ORS 192.660(1)(h). Only representatives of the media may attend, and media representatives may not report on any deliberations during the session.

The regular Environmental Quality Commission meeting will resume at approximately 8:30 a.m., in the Columbia Room of the Best Western New Kings Inn.

1

A. **Approval of Minutes** - 8:39  
The Commission will review, amend if necessary, and approve draft minutes of the April 23-25, 2002, Environmental Quality Commission meeting.

1

B. **Action Item: Consideration of Pollution Control Facility Tax Credits** - 8:40A  
In 1967, the Oregon Legislature established the Pollution Control Facility Tax Credit Program to help businesses meet environmental requirements. The program was later expanded to encourage investment in technologies and processes that prevent, control or reduce significant amounts of pollution. In 1999, nonpoint source pollution control facilities (such as wood chippers) were made eligible for the program. At this meeting, the Commission will consider tax credit applications for facilities that control air and water pollution, recycle solid and hazardous waste, reclaim plastic products, provide alternatives to open burning, and control pollution from underground storage tanks.

1, 2

C. **Director's Dialogue** - 8:45A  
Commissioners will discuss current events and issues involving the Department and state with DEQ Director Stephanie Hallock. The Director's Dialogue will include an update on the development of legislative concepts and budget requests for the 2003 Session.

2, 3

D. **Action Item: Umatilla Chemical Agent Disposal Facility Permit Modification** - 9:24A  
Wayne Thomas, DEQ Administrator of the Chemical Demilitarization Program, will propose a Class 3 Modification to the hazardous waste permit for the Umatilla Chemical Agent Disposal Facility (UMCDF). The permit change would increase the amount of available storage at UMCDF for hazardous wastes generated during destruction of chemical agents, scheduled to start in February 2003. The U.S. Army requested this permit modification in February 2000, and DEQ solicited public input on

TAKE #  
↓

the change in 2000 and 2002. At this meeting, the Commission will consider and act on the proposed permit modification.

3, 4, 5

**E. Work Session: Revising Enforcement and Compliance Rules - 10:44A**

Anne Price, DEQ Administrator of the Office of Compliance and Enforcement, will present the status of revisions to DEQ's enforcement rules. In January 2000, the Commission provided early direction for improving compliance with and enforcement of Oregon's environmental regulations. At this meeting, the Department will solicit input from Commissioners on progress and next steps for revising the rules.

5

**F. Discussion Item: Role of Hearings Officers as Agents of the Commission - 12:30p**

Anne Price, DEQ Administrator of the Office of Compliance and Enforcement, will facilitate Commission discussion on the role of Hearings Officers as agents of the Commission on appeals of Department enforcement actions. At this meeting, Commissioners will discuss the function of Hearings Officers, including their scope of review and decision making on contested case appeals.

5, 6

**G. Commissioners' Reports - 12:55p**

Adjourn \_\_\_\_\_

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**Public Forum:** The Commission will break the meeting at approximately 11:30 a.m. on Friday, June 7, to provide members of the public an opportunity to speak to the Commission on environmental issues and concerns not part of the agenda for this meeting. Individuals wishing to speak to the Commission must sign a request form at the meeting and limit presentations to five minutes. The Commission may discontinue public forum after a reasonable time if a large number of speakers wish to appear. In accordance with ORS 183.335(13), no comments may be presented on Rule Adoption items for which public comment periods have closed.

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September 16-17, 2002  
December 12-13, 2002

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### **Stephanie Hallock, Director**

#### **Department of Environmental Quality**

811 SW Sixth Avenue, Portland, OR 97204-1390

Telephone: (503) 229-5696

Toll Free in Oregon: (800) 452-4011

TTY: (503) 229-6993

Fax: (503) 229-6124

E-mail: [deq.info@deq.state.or.us](mailto:deq.info@deq.state.or.us)

Mikell O'Mealy, Assistant to the Commission

Telephone: (503) 229-5301

**Oregon Environmental Quality Commission Meeting****June 6-7, 2002**

Columbia Room  
Best Western New Kings Inn  
1600 Motor Court NE, Salem, Oregon

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12:30 Working Lunch on Relationship Building, the Rogue Room

**1:30 The Intersection of Water Quantity and Water Quality Programs****1:30 Interagency Coordination**

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Mikell O'Mealy, Assistant to the Commission  
Telephone: (503) 229-5301

State of Oregon  
Department of Environmental Quality

Memorandum

**To:** Environmental Quality Commission

**Date:** May 21, 2002

**From:** Mikell O'Mealy

**Subject:** June 6-7 EQC Meeting Materials

Greetings. Enclosed are materials for the June 6-7 EQC meeting, which will be held at the Best Western New Kings Inn in Salem, 1600 Motor Court NE, phone: 503-581-2756, fax: 503-581-0788. We have reserved rooms for you at the Best Western for Thursday evening.

To get to the Best Western New Kings Inn:

- From northbound Interstate 5, take Market Street exit 256. Turn right at the light, then right onto Motor Court Road, just past Denny's Restaurant.
- From southbound Interstate 5, take Market Street exit 256. Turn left at the light, traveling under the freeway. Turn right on Motor Court Road, just past Denny's Restaurant.

Parking is available at the Conference Center.

I have also included information about the Water Resources Commission, including a list of Commissioners and their June 6-7 meeting agenda, just for your information.

I understand that Emma has contacted you to confirm your travel plans and offer any other assistance you might need. If you have any other travel needs or questions about the meeting, please do not hesitate to contact me at 503-229-5301, or Emma at 503-229-5990.

I look forward to seeing you soon.



**WATER RESOURCES DEPARTMENT**

158 - 12th St. NE  
Salem, Oregon 97310

**Paul R. Cleary, Director**  
158 - 12th St. NE  
Salem, Oregon 97310  
Ph. (503)378-2982; FAX (503)378-2496

**WATER RESOURCES COMMISSION**

**Dan Thorndike, Chair**  
P.O. Box 1588  
Medford, OR 97501-0244  
Ph. (541)857-8222; FAX (541)779-1974

**Tyler Hansell**  
75858 Col. Jordan Road  
Hermiston, OR 97838  
Ph. (541)567-8939; FAX (541)564-1359

**Jim Nakano**  
4014 Clark Blvd.  
Ontario, OR 97914  
Ph. (541)889-6823; Mobile (208)741-5036; FAX (541)889-4003

**Don Nelson**  
2598 N. Highway 97  
Redmond, OR 97756  
Ph. (541)548-6047; FAX (541)548-0243

**Jay Rasmussen**  
Oregon Extension Sea Grant  
2030 Marine Science Drive  
Newport, OR 97365  
Ph. (541)867-0368; FAX (541)867-0369

**Susie Smith**  
City of Springfield, Environmental Services  
225 Fifth St.  
Springfield, OR 97477  
Ph. (541)726-3697; FAX (541)726-2309

## NAME/CITY

## TERM EXPIRATION

## REGION

**Tyler Hansell**  
Hermiston

2002

East Side at Large

**TYLER HANSELL** - President and manager of family farm. Current member of NE Region of Access and Habitat Advisory Council of the Oregon Dept. of Fish and Wildlife and Oregon Chapter of Ducks Unlimited. Past member of the Umatilla Basin Groundwater Task Force and Umatilla County Planning Commission. Has served as president of the County Line Water Improvement District and the Umatilla County Chapter of the Oregon Cattlemen's Assn. Received a Bachelor's degree in animal science from Washington State University.

**Jim Nakano**  
Ontario

2005

Eastern

**JIM NAKANO** - Farmer in the Ontario area. Current treasurer of the Malheur-Owyhee Watershed Council. Vice-chair of the Local Farm Credit Service Board and of the Malheur County Groundwater Committee. Past Director of the Malheur County Onion Growers, Malheur County Potato Growers, and the Warmspring Irrigation District. 1994 recipient of the Oregon State Conservationist of the Year Award.

**Ron Nelson**  
Redmond

2003

North Central

**RON NELSON** - Secretary-Manager of the Central Oregon Irrigation District. Current member of Deschutes Mitigation and Enhancement Committee; board member of Central Oregon Water Users Association, Oregon Water Resources Congress, Northwest Irrigation Operators Association, and Oregon Water Trust. Delegate to the National Water Resources Association.

**Jay Rasmussen**  
Newport

2005

West Central

**JAY RASMUSSEN** - Associate Director of Oregon Sea Grant and Program Leader for Oregon Extension Sea Grant. Former director of Oregon Coastal Zone Management Association. Served on Board of Directors as Chair of Oregon Coast Aquarium, and on the Gorda Ridge Federal-State Technical Task Force. Former member of the Ocean Resources Management Task Force and its successor, Oregon Ocean Policy Council; and Management Council of the Tillamook Bay National Estuary Program. Received Master's degree in history from Utah State University.

**Susie L. Smith**  
Springfield

2003

West Side at Large

**SUSIE SMITH** - Environmental Services Division Manager of the City of Springfield's Public Works Department; and General Manager for the Eugene-Springfield Metropolitan Wastewater Management Commission. Received a Bachelor's degree in Conservation of Natural Resources from UC Berkley, and a Master's degree in Urban and Regional Planning from the University of Oregon. Current member of the Eugene Water and Electric Board and serves on the board of directors of the Oregon Association of Clean Water Agencies.

**Dan Thorndike**  
Ashland

2005

Southwest

**DAN THORNDIKE** - General counsel for Medford Fabrication. Member and former chair of Ashland School Board. Served as board member or officer of a number of civic and community groups including Jackson County Financing and Revenue Committees, and the Rogue Valley Civic League. Received a Bachelor's degree from The Colorado College and a law degree from the University of Washington.

**Vacant Position**

Northwest

**OREGON WATER RESOURCES COMMISSION MEETING**

**June 6, 2002**

**Columbia Room  
Best Western New Kings Inn  
1600 Motor Court NE  
Salem, Oregon**

**June 7, 2002**

**Oregon Water Resources Department  
Conference Room C  
158 Twelfth Street NE  
Salem, Oregon**

**PUBLIC MEETING: Thursday, June 6, 11:00 a.m.**

The Oregon Water Resources Commission (WRC) and Oregon Environmental Quality Commission (EQC) will hold a joint meeting from 11:00 a.m. to 5:30 p.m. in the Columbia Room of the Best Western New Kings Inn. A reception for Commissioners will follow the meeting.

**11:00 Introduction of Commissioners**

**11:20 Opening Comments**

Stephanie Hallock, Director of the Department of Environmental Quality (DEQ), and Paul Cleary, Director of the Water Resources Department (WRD) will set the context for the joint Commission meeting.

**11:30 Overview of Water Quantity and Water Quality Authorities**

Meg Reeves, WRD Deputy Director, and Mike Llewelyn, DEQ Water Quality Administrator, will describe state water law and the federal Clean Water Act as a foundation for considering the intersection of these authorities in Oregon.

**12:30 Lunch Work Session on Relationship Building (The Rogue Room)**

**1:30 The Intersection of Water Quantity and Water Quality**

**1:30 Interagency Coordination**

Dwight French, WRD Water Rights Manager, and Karen Tarnow, DEQ Water Quality Policy Specialist, will present the 1997 recommendations of the Water

Quality and Water Quantity Task Force. On-going and future interagency coordination on issues identified by the Task Force will be discussed.

2:15 TMDL Development and Implementation

Dick Pederson, DEQ Watershed Management Section Manager, will describe the purpose and schedule for developing Total Maximum Daily Loads (TMDLs) to improve the quality of Oregon's impaired waterways. Dick Pedersen will also provide an overview of the Umatilla Basin TMDL, which demonstrates the clear link between water quantity and water quality impacts. Don Butcher, DEQ Eastern Region TMDL Specialist, and Mike Ladd, WRD North Central Region Manager, will describe ongoing activities by a variety of stakeholders in the basin to restore streamflows. Tom Paul, WRD Field Services Administrator, and Dick Pedersen will summarize lessons learned and tools available for addressing streamflow issues for improving water quality.

3:30 Break

3:45 Water Reuse Initiative

Mike Llewelyn will introduce DEQ's Water Reuse Initiative, an effort to encourage new ways to reuse wastewater. Mike Llewelyn and Tom Paul will present existing water reuse authorities and opportunities to improve coordination on water reuse projects.

**4:30 Commission Discussion: Challenges and Opportunities**

Commissioners will discuss current issues and opportunities associated with coordinating water quantity and water quality activities. A panel of DEQ and WRD staff will be available to answer questions.

**5:20 Closing Comments from Commissioners**

A joint reception will provide an opportunity for informal discussion and relationship building among Commissioners. The reception will start at 6:00 p.m. in the Rogue Room of the Best Western New Kings Inn.

**PUBLIC MEETING: Friday, June 7, 8:30 a.m.**

The Water Resources Commission will hold a public meeting in Conference Room C of the Water Resources Department to consider items requiring Commission action or direction, or for brief information reports. A public comment period is provided at approximately 11:15 a.m. for issues not included on the agenda. Public comment on agenda items will be taken as each item is considered by the Commission. Asterisks denote items on which public comment will generally not be taken (please see page 3).

If a specific time is indicated for an agenda item, an effort will be made to consider that item as close to that time as possible. However, because of the uncertain length of time needed for each agenda item, scheduled times may be modified. Those wishing to hear discussion of an item should arrive at the beginning of the meeting to avoid missing the item.

**A. Commission Meeting Minutes (8:30 a.m.)**

The minutes of the previous meeting will be presented for Commission approval.

**B. Commission Comments**

Commissioners will report on their recent activities and share information and comments on a variety of water resource topics.

**C. Director's Report**

Director Paul Cleary will update the Commission on Department business and late-breaking issues.

**D. Commission Discussion (9:00 a.m. – 9:45 a.m.)**

Commissioners will discuss the joint commission meeting with the Environmental Quality Commission and other topics of interest.

**Break (9:45 a.m. – 10:00 a.m.)**

**E. Contested Case Exceptions (10:00 a.m. – 11:15 a.m.)**

Meg Reeves, Deputy Director, and Renee Moulun, Protest Program Coordinator, Water Rights/Adjudication Division, will present for the Commission's consideration exceptions filed by William R. McCormack, WaterWatch of Oregon and the Oregon Department of Fish and Wildlife in a contested case proceeding on an instream water right application on Bear Creek in the Deschutes Basin. *The Commission may deny or allow the exceptions and direct issuance of a final order.*

**F. Public Comment (approximately 11:15 a.m.)**

This time is reserved for public comment on issues not included in the meeting agenda. Anyone wishing to speak to the Commission is asked to fill out a comment request sheet (available at the information table). This helps the Commission to know how many individuals would like to come forward and to schedule accordingly.



## **G. Other Issues**

**Meeting Procedures:** Generally, agenda items will be taken in the order above. However, in certain circumstances, the Commission may elect to take an item out of order. Please be aware that topics not listed on the agenda may be introduced during the Commission Comment period, the Director=s Report, the Public Comment period, under Other Issues or at other times during the meeting.

Oregon=s Public Meetings Law requires disclosure that Commission members may meet for meals on Thursday and Friday.

**Executive Session:** The Commission may also convene in a confidential executive session where, by law, only members of the press and Department staff may attend. Others will be asked to leave the room during these discussions, which usually deal with current or potential litigation. Before convening such a session, the presiding Commission member will make a public announcement and explain necessary procedures.

**\*Public Testimony:** The Commission encourages public comment on any agenda item. However, public testimony may be limited on items marked with an asterisk (\*). The asterisk means that the item has already been the subject of a formal public hearing or contested case hearing. On certain items marked with an asterisk, the Commission may be authorized to allow public comments.

People wishing to speak to the Commission are asked to fill out a comment request sheet (available at the information table). Comments relating to a specific agenda item will be heard by the Commission as each agenda item is considered. Comments on other topics may be made during the public comment period on Friday at approximately 11:15 a.m.

Every attempt will be made to share with the Commission written comments that are delivered to the Director=s Office in advance of the meeting date. Early delivery of written comments is encouraged. To submit written comments directly to the Commission, please bring at least ten copies to the meeting.

**Questions?** If you have any questions about this agenda or the Commission=s procedures, please call Diane Addicott, Commission Assistant, at 503-378-8455, ext. 232.

If special physical, language or other accommodations are needed for this meeting, please advise Diane Addicott at the phone number mentioned above as soon as possible but at least 48 hours in advance of the meeting.

**Water Resources Commission**

(with city of residence, region represented, and year of term expiration)

*The Commission is a seven-member citizen body which sets state water policy and oversees activities of the Water Resources Department.*

Dan Thorndike, Chair	Ashland	Southwest Region	2005
Ron Nelson, Vice-Chair	Bend	North Central Region	2003
Tyler Hansell	Hermiston	East Side at Large	2002
Vacant		Northwest Region	
Jim Nakano	Ontario	Eastern Region	2005
Jay Rasmussen	Newport	West Central Region	2005
Susie Smith	Eugene	West Side at Large	2003

Paul R. Cleary, Director  
Water Resources Department  
Commerce Building  
158 12<sup>th</sup> Street NE  
Salem, OR 97301-4172  
[www.wrd.state.or.us](http://www.wrd.state.or.us)

**Upcoming 2002 Water Resources Commission Meetings:** August 8-9 (TBA)  
October 10-11 (TBA)

**Directions and Parking Information:**

Best Western New Kings Inn: From northbound Interstate 5, take Market Street exit 256. Turn right at the light, then right onto Motor Court Road, just past Denny's Restaurant. From southbound Interstate 5, take Market Street exit 256. Turn left at the light, traveling under the freeway. Turn right on Motor Court Road, just past Denny's Restaurant. Parking is available at the Conference Center.

Water Resources Department: From Interstate 5, take Exit 253 (Highway 22/Mission Street) heading west. Follow signs to the 12<sup>th</sup> Street off-ramp (about 5 miles). Take 12<sup>th</sup> Street off-ramp and merge with northbound 12<sup>th</sup> Street traffic. The Water Resources Department is on the east side of 12<sup>th</sup> Street between State and Court Streets.

A limited number of parking meters are available on the north side of the building, and along State and Court Streets. Hourly parking is available at Cliff's Automotive located on the corner of Court and Capitol Streets. Daily parking is available at the State Yellow lot located at Marion and Summer Streets for \$6/day (machine takes bills and coins; gives change and a receipt). A Park and Ride lot is located at the State Motor Pool with buses running approximately every 15-30 minutes.

## **Oregon Environmental Quality Commission Meeting**

**June 6-7, 2002**

Columbia Room

Best Western New Kings Inn

1600 Motor Court NE, Salem, Oregon

### **Thursday, June 6, 2002**

The Oregon Environmental Quality Commission and Oregon Water Resources Commission will hold a joint meeting from 11:00 a.m. to 5:30 p.m. in the Columbia Room of the Best Western New Kings Inn. A reception for Commissioners will follow the meeting.

**11:00 Introduction of Commissioners**

**11:20 Opening Comments**

Stephanie Hallock, Director of the Department of Environmental Quality (DEQ), and Paul Cleary, Director of the Water Resources Department (WRD), will set the context for the joint Commission meeting.

**11:30 Overview of Water Quantity and Water Quality Authorities**

Meg Reeves, WRD Deputy Director, and Mike Llewelyn, DEQ Water Quality Administrator, will describe the state water law and federal Clean Water Act as a foundation for considering the intersection of these authorities in Oregon.

12:30 Working Lunch on Relationship Building, the Rogue Room

**1:30 The Intersection of Water Quantity and Water Quality Programs**

1:30 Interagency Coordination

Dwight French, WRD Water Rights Manager, and Karen Tarnow, DEQ Assistant to the Water Quality Administrator, will present the 1997 recommendations of the Water Quality and Quantity Task Force. On-going and future interagency coordination on issues identified by the Task Force will be discussed.

2:15 TMDL Development and Implementation

Dick Pederson, DEQ Watershed Management Section Manager, will describe the purpose and schedule for developing Total Maximum Daily Loads (TMDLs) to improve the quality of Oregon's impaired waterways. Dick Pedersen will also provide an overview of the Umatilla basin TMDL, which demonstrates the clear link between water quantity and water quality impacts. Don Butcher, DEQ Eastern Region TMDL Specialist, and Mike Ladd, WRD North Central Region Manager, will describe several activities currently being undertaken by a variety of stakeholders in the basin to restore streamflows. Tom Paul, WRD Field Services Administrator, and Dick Pedersen will summarize lessons learned and tools available for addressing streamflow issues for improving water quality.

3:30 Break

**3:45 Water Reuse Initiative**

Mike Llewelyn will introduce DEQ's Water Reuse Initiative, an effort to encourage new ways to reuse wastewater. Mike Llewelyn and Tom Paul will provide an overview of DEQ and WRD water reuse responsibilities and will discuss opportunities and challenges related to the initiative.

**4:30 Commission Discussion: Challenges and Opportunities**

Commissioners will discuss current issues and opportunities associated with merging water quality and water quantity requirements. A panel of DEQ and WRD staff will be available to answer questions.

**5:20 Closing Comments from Commissioners**

A joint reception will provide an opportunity for informal discussion and relationship building among Commissioners. The reception will start at 6:00 p.m. in the Rogue Room of the Best Western New Kings Inn.

**Friday, June 7, 2002**

At approximately 8:00 a.m., the Commission will hold an executive session to consult with counsel concerning legal rights and duties regarding current and potential litigation against the Department. Executive session is held pursuant to ORS 192.660(1)(h). Only representatives of the media may attend, and media representatives may not report on any deliberations during the session.

The regular Environmental Quality Commission meeting will resume at approximately 8:30 a.m., in the Columbia Room of the Best Western New Kings Inn.

**A. Approval of Minutes**

The Commission will review, amend if necessary, and approve draft minutes of the April 23-25, 2002, Environmental Quality Commission meeting.

**B. Action Item: Consideration of Pollution Control Facility Tax Credits**

In 1967, the Oregon Legislature established the Pollution Control Facility Tax Credit Program to help businesses meet environmental requirements. The program was later expanded to encourage investment in technologies and processes that prevent, control or reduce significant amounts of pollution. In 1999, nonpoint source pollution control facilities (such as wood chippers) were made eligible for the program. At this meeting, the Commission will consider tax credit applications for facilities that control air and water pollution, recycle solid and hazardous waste, reclaim plastic products, provide alternatives to open burning, and control pollution from underground storage tanks.

**C. Director's Dialogue**

Commissioners will discuss current events and issues involving the Department and state with DEQ Director Stephanie Hallock. The Director's Dialogue will include an update on the development of legislative concepts and budget requests for the 2003 Session.

**D. Action Item: Umatilla Chemical Agent Disposal Facility Permit Modification**

Wayne Thomas, DEQ Administrator of the Chemical Demilitarization Program, will propose a Class 3 Modification to the hazardous waste permit for the Umatilla Chemical Agent Disposal Facility (UMCDF). The permit change would increase the amount of available storage at UMCDF for hazardous wastes generated during destruction of chemical agents, scheduled to start in February 2003. The U.S. Army requested this permit modification in February 2000, and DEQ solicited public input on

the change in 2000 and 2002. At this meeting, the Commission will consider and act on the proposed permit modification.

**E. Work Session: Revising Enforcement and Compliance Rules**

Anne Price, DEQ Administrator of the Office of Compliance and Enforcement, will present the status of revisions to DEQ's enforcement rules. In January 2000, the Commission provided early direction for improving compliance with and enforcement of Oregon's environmental regulations. At this meeting, the Department will solicit input from Commissioners on progress and next steps for revising the rules.

**F. Discussion Item: Role of Hearings Officers as Agents of the Commission**

Anne Price, DEQ Administrator of the Office of Compliance and Enforcement, will facilitate Commission discussion on the role of Hearings Officers as agents of the Commission on appeals of Department enforcement actions. At this meeting, Commissioners will discuss the function of Hearings Officers, including their scope of review and decision making on contested case appeals.

**G. Commissioners' Reports**

Adjourn \_\_\_\_\_

**Directions and Parking Information:** To the Best Western New Kings Inn, 1600 Motor Court NE, Salem. From northbound Interstate 5, take Market Street exit 256. Turn right at the light, then right onto Motor Court Road, just past Denny's Restaurant. From southbound Interstate 5, take Market Street exit 256. Turn left at the light, traveling under the freeway. Turn right on Motor Court Road, just past Denny's Restaurant. Parking is available at the Conference Center.

**Public Forum:** The Commission will break the meeting at approximately 11:30 a.m. on Friday, June 7, to provide members of the public an opportunity to speak to the Commission on environmental issues and concerns not part of the agenda for this meeting. Individuals wishing to speak to the Commission must sign a request form at the meeting and limit presentations to five minutes. The Commission may discontinue public forum after a reasonable time if a large number of speakers wish to appear. In accordance with ORS 183.335(13), no comments may be presented on Rule Adoption items for which public comment periods have closed.

**Note:** Because of the uncertain length of time needed for each agenda item, the Commission may hear any item at any time during the meeting. If a specific time is indicated for an agenda item, an effort will be made to consider that item as close to that time as possible. However, scheduled times may be modified if participants agree. Those wishing to hear discussion of an item should arrive at the beginning of the meeting to avoid missing the item.

**Upcoming Environmental Quality Commission Meetings:** July 25-26, 2002  
September 16-17, 2002  
December 12-13, 2002

Copies of staff reports for individual agenda items are available by contacting Emma Snodgrass in the Director's Office of the Department of Environmental Quality, 811 SW Sixth Avenue, Portland, Oregon 97204; telephone 503-229-5990, toll-free 1-800-452-4011 extension 5990, or 503-229-6993 (TTY). Please specify the agenda item letter when requesting reports. If special physical, language or other accommodations are needed for this meeting, please advise Emma Snodgrass as soon as possible, but at least 48 hours in advance of the meeting.

## Environmental Quality Commission Members

The Environmental Quality Commission is a five-member, all volunteer, citizen panel appointed by the governor for four-year terms to serve as DEQ's policy and rule-making board. Members are eligible for reappointment but may not serve more than two consecutive terms.

### **Melinda S. Eden, Chair**

Melinda Eden is an attorney, farm owner and former reporter for the Associated Press. Her education includes a J.D. from the University of Oregon and a certificate in Natural Resources from the University of Oregon Law School. Chair Eden was appointed to the EQC in 1996 and reappointed for an additional term in 2000. She became vice chair in 1998 and chair in 1999. Chair Eden currently resides in Milton-Freewater.

### **Tony Van Vliet, Vice Chair**

Tony Van Vliet received his B.S. and M.S. in Forest Production at Oregon State University. He has a Ph.D. from Michigan State University in Wood Industry Management. Commissioner Van Vliet served sixteen years as a member of the Public Lands Advisory Committee, has been a member of the Workforce Quality Council, served sixteen years as a State Representative on the Legislative Joint Ways and Means Committee, and served eighteen years on the Legislative Emergency Board. He currently resides in Corvallis. Commissioner Van Vliet was appointed to the EQC in 1995 and reappointed for an additional term in 1999.

### **Mark Reeve, Commissioner**

Mark Reeve is an attorney with Reeve & Reeve in Portland. He received his A.B. at Harvard University and his J.D. at the University of Washington. Commissioner Reeve was appointed to the EQC in 1997 and reappointed for an additional term in 2001. He serves as the Commission's representative to the Oregon Water Enhancement Board, for which he is Co-Chair.

### **Harvey Bennett, Commissioner**

Harvey Bennett is a retired educator. He has taught and administered at all levels of education, concluding as president emeritus of Rogue Community College. Commissioner Bennett has a B.S., M. Ed. and Ph.D. from the University of Oregon. Commissioner Bennett was appointed to the EQC in 1999 and he currently resides in Grants Pass.

### **Deirdre Malarkey, Commissioner**

Deirdre Malarkey is a graduate of Reed College and has graduate degrees from the University of Oregon in library science, Middle Eastern urban and arid land geography, and a Ph.D. in geography. Commissioner Malarkey has served on the Water Resources Commission, the Governor's Watershed Enhancement Board, and the Natural Heritage Advisory Board for the State Land Board. Commissioner Malarkey was appointed to the EQC in 1999 and she currently resides in Eugene.

### **Stephanie Hallock, Director**

#### **Department of Environmental Quality**

811 SW Sixth Avenue, Portland, OR 97204-1390

Telephone: (503) 229-5696

Toll Free in Oregon: (800) 452-4011

TTY: (503) 229-6993

Fax: (503) 229-6124

E-mail: [deq.info@deq.state.or.us](mailto:deq.info@deq.state.or.us)

Mikell O'Mealy, Assistant to the Commission

Telephone: (503) 229-5301

## MEMORANDUM

**TO:** Water Resources Commission and Environmental Quality Commission

**FROM:** Paul R. Cleary, WRD Director  
Stephanie Hallock, DEQ Director

**SUBJECT:** **Background Information for Commission Discussion**  
Joint Meeting of the WRC and EQC, June 6, 2002

Your joint meeting presents an exceptional opportunity to explore the complex nature of the laws that govern water use and protect water quality in Oregon. The areas of intersection are where our agencies strive to work together and help Oregonians steward the state's waters. In preparation for your meeting, our staff have provided background information on the topics we plan to cover. We hope this information helps focus your discussion on potential opportunities for greater coordination between water quantity and water quality management in Oregon.

This packet includes:

- An Overview of Water Quantity and Water Quality Authorities
- A description of Interagency Coordination, related to the 1997 Water Quality and Quantity Task Force
- A description of total maximum daily load (TMDL) Development, with a focus on the Umatilla Basin TMDL
- A description of a Water Reuse Initiative
- A summary of current Challenges and Opportunities

Please contact any of the staff listed in these reports if you have questions or would like to discuss these topics in advance of the meeting.

## **MEMORANDUM**

**TO:** Water Resources Commission and Environmental Quality Commission

**FROM:** Meg Reeves, WRD Deputy Director, and  
Mike Llewelyn, DEQ Water Quality Division Administrator

**SUBJECT:** **Overview of Water Quantity and Quality Authorities**  
Joint Meeting of the WRC and EQC, June 6, 2002

The Water Resources Department (WRD) and the Department of Environmental Quality (DEQ) have regulatory authority over different aspects of water management. WRD administers Oregon's water laws, which are based on the doctrine of prior appropriation. DEQ is responsible for protecting and restoring water quality in Oregon pursuant to the federal Clean Water Act and state law. A description of state water law and the water quality statutes will be presented as a foundation for considering the intersection of these authorities in Oregon. A brief description of water management and the fundamentals of Oregon's Water Code is also provided as Attachment 1 with an overview of DEQ programs related to water quality presented in Attachment 2.

**Attachments:**

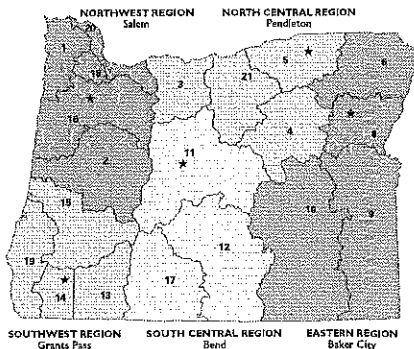
1. Managing Oregon's Water
2. Water Quality Authorities





State of Oregon  
**Water Resources Department**  
 158 12th Street NE, Salem, OR 97310-4172  
 (503) 378-8455 • (800) 624-3199  
 www.wrd.state.or.us

# Managing Oregon's Water



## Field Services

This is the largest of the agency's five divisions and includes the five regional offices and 20 watermaster districts. The division also conducts field investigations, final proof surveys, and water right transfers and cancellations.

## Technical Services

This division provides services including dam safety, enforcement, well construction inspections, ground water hydrology, information services, water availability analysis, and hydrographic data collection, analysis and publication.

## Water Rights and Adjudications

This division assesses incoming applications for new water use, issues water right permits and certificates, coordinates hydroelectric relicensing, and serves as a record keeping body for the existing water rights in Oregon.

## Administrative Services

The agency's day to day operations are supported through fiscal management, training, clerical support, copy center, and mailroom functions. This division also manages the Water Development Loan Fund program.

## Director's Office

This office serves to coordinate policy, legislation, public information, and contested case hearings.

## Water Resources Commission

The Water Resources Commission is a seven-member citizen body that sets water policy for the state and oversees the activities of the Water Resource Department in accordance with state law. Commission members are appointed by the Governor and must be confirmed by the Oregon Senate. They serve four-year terms. A Commission member is appointed from each of the five congressional districts, and two members are selected from the state at large. At least two members of the Commission must be from the area east of the Cascade Mountains.

## Water Resources Department

The Water Resources Department is the state agency charged with administering the laws governing surface and ground water resources. The Department is currently organized into five divisions—Field Services, Technical Services, Water Rights and Adjudications, Administrative Services, and the Director's Office—all operating under the immediate authority of the Director.

It is the responsibility of the Water Resources Department to manage Oregon's water for the protection of existing water uses, the environment, and future needs. The Department works to ensure a sufficient supply for Oregon's growing economy and quality of life.

## Understanding the resources

The Water Resources Department employs hydrogeologists, engineers, hydrologists, geographers and other specially trained technicians that work to improve our knowledge of the water resources of Oregon's rivers, streams, lakes, aquifers and reservoirs. These staff measure surface water sources and wells throughout Oregon using a combination of advanced technology and time-tested methods. The information is analyzed using computer models and prepared for use by the staff and public in making decisions about future uses of the resource.

## Implementing law and policy

The Department uses resource information gathered and analyzed by staff and comments gathered from the public to advise the Water Resources Commission in setting statewide water policy. These *administrative rules* guide the Department in issuing permits for the use of water. *Basin plans* describe the kinds of uses allowed in certain areas and a series of *water management policies* provide a framework for reviewing requests for water.

## Managing the resource

Using the knowledge gained by studying the resources and the direction provided by law and policy, our staff implement the programs that allocate the state's water, protect existing water rights, and plan for future uses. The Department works with water right holders and the public to find efficient and effective ways to meet water supply needs without causing damage to the resource or injury to other water rights.



## Oregon's Water Law

*based on the principle of prior appropriation*

Under the *Prior Appropriation Doctrine*, the first person to obtain a water right on a stream is the last to be shut off during periods of low streamflows. In water-short times, water right holders with the oldest date of priority can demand the water specified in their water right regardless of the needs of junior users.

### Four Fundamental Provisions of Oregon's Water Code:

- **Beneficial Use:** Surface or ground water may be used only if it is for a beneficial purpose without waste.
- **"First in time, first in right":** The water right priority date determines who gets water in a time of shortage.
- **Appurtenancy:** A water right is attached to the land where it was established, as long as the water is used. If the land is sold, the water right goes with the land to the new owner.
- **"Use it or lose it":** With some exceptions established in law, once established, a water right can be forfeited if it is not used as provided in the water right at least once every five years.

### Types of Water Use Authorizations:

<b>Permit</b>	Issued when an application for water use is approved. Permits establish parameters of use and set time lines for developing and perfecting the right.
<b>Certificate</b>	Evidence of a permanent water right issued by the Water Resources Department (WRD). A certificate reflects the extent to which water has been developed and put to beneficial use under the permit. Certificates are also issued by WRD to reflect decreed rights following an adjudication.
<b>Decreed Right</b>	If a water use began before adopting the 1909 water code and has been used continuously since, the property owner has a "vested" water right that is quantified and documented in a decree through a legal process known as an <i>adjudication</i> . In an adjudication, WRD gathers information about the use of water and presents its findings as to the water use to the circuit court in the county where the water is used. The court then issues a decree confirming the water right.
<b>Limited Licenses</b>	Limited licenses provide permission to divert and use water for a short-term or fixed duration. They allow water use for purposes that do not require a permanent water right, for example, road construction, fire fighting, general construction, rangeland management, and emergency use. Irrigation uses are not generally allowed under limited licenses. Limited licenses are junior to all other uses and cannot injure existing water rights.
<b>Exempt Uses of Surface Water</b>	Some uses of surface water do not require formal authorization from WRD. Examples include use of water from certain small natural springs, stock watering, water used in emergency fire fighting or training activities, collection and use of rainwater, and other uses — all subject to specified conditions.
<b>Exempt Uses of Ground Water</b>	Some uses of ground water do not require formal authorization from WRD. Some examples are stock watering, lawn or non-commercial garden watering, down-hole heat exchange uses, and limited domestic and commercial uses — all subject to specified conditions.
<b>Registration</b>	Legislation passed in 1987 required persons claiming pre-1909 rights in areas not yet adjudicated to file a surface water registration statement before December 31, 1994. Each vested right will be determined through the courts in an adjudication proceeding. In the meantime, continued use of water is authorized under the registration.



State of Oregon  
**Water Resources Department**  
158 12th Street NE, Salem, OR 97301-4172  
(503) 378-8455 • (800)624-3199  
www.wrd.state.or.us

# Water Rights Process: The Fundamentals

## Application Review Process

- Priority date is established when the Water Resources Department (WRD) receives completed application and application fee
- Public interest review
- Public comment and protest opportunity
- Generally, WRD approves or denies applications within eight months if there are no protests

- Permit holder must complete the water use development and put the water to beneficial use according to the terms and conditions of the permit.

## Permit

- Must be developed within five years

## "Proving Up"

When construction of the system is complete and the water is put to beneficial use, the permit holder must submit a final proof survey and report of beneficial use to the Water Resources Department

## Permit Amendment

- Allows for changes to the point of diversion or the place of water use
- Proposed change cannot cause injury to other water rights

## Permit Extension

- Allows a permit holder to have additional time to develop the right

## Certificate (perfected water right)

## Transfers

- May be made to certificates, decreed rights and permits that have been approved for certification by WRD
- Allows for changes to the point of diversion, point of appropriation, place of use, or type of use
- Proposed change cannot cause injury to other water rights

## Forfeiture

- Except in certain cases, if any portion of a water right is not used for five or more consecutive years, that portion of the right may be forfeited through cancellation proceeding

# Oregon's Water Resources

## Numbers, Terms and Facts

### Numbers

#### *Rivers*

- Oregon has 12,000 named streams
- There are 114,500 miles of rivers and streams in Oregon
- Oregon's longest river: John Day (284 miles)
- Oregon's shortest river: D River (120 feet)
- Oregon rivers carry 66 million acre-feet annually (excluding the Columbia)
- 5/6 of the water (55 million AF) rivers carry come from western Oregon, 1/6 comes from eastern Oregon

#### *Lakes*

- Oregon has 1,400 named lakes
- Deepest lake in America is Crater Lake (1,958 feet)

#### *Wells*

- Approximately 200,000 wells, including exempt use wells
- Oregon's deepest well is 2,700 feet

#### *Water Rights (as of January 2002)*

Total surface water rights: 50,129 (approx. 7.7 million AF used per year)

Type of Right	Number of Rights (%)	Estimated in AF (%)
Irrigation:	33,622 (67%)	5,930,000 (77%)
Industrial/commercial:	900 (1%)	1,250,000 (16%)
Municipal:	654 (1%)	470,000 (6%)
Instream:	1,482 certificated	

Total ground water rights: 16,367 (approx. 1.2 million AF used per year)

Type of Right	Number of Rights (%)	Estimated in AF (%)
Irrigation:	13,891 (85%)	980,000 (84%)
Industrial/commercial:	522 (3%)	20,000 (2%)
Municipal	746 (5%)	100,000 (8%)

Total reservoir rights: 14,239

Type of Right	Number of Rights (%)
Reservoirs smaller than 9.2 AF:	12,561
Reservoirs larger than 9.2 AF:	1,617

#### **Contacting the Oregon Water Resources Department:**

Paul R. Cleary, Director	(503) 378-2982
Meg Reeves, Deputy Director	(503) 378-8455, ext. 247
Adam Sussman, Senior Policy Coordinator	(503) 378-8455, ext. 297

## Terms

### **Cubic foot per second (cfs):**

A rate of water flow that will supply one cubic foot of water in one second

To put it another way . . .

- One cfs = 7.48 gallons per second
- = 646,317 gallons per day
- = 1.98 acre-feet per day (more about this later)

### **Acre-foot (AF):**

The volume of water that will cover one acre to a depth of one foot

To put it another way . . .

- One AF = 43,560 cubic feet (a box 35 feet to a side)
- = 325,850 gallons

### **Is that a lot?**

The average per capita domestic use in Oregon is 136 gallons/day

- So, one AF is as much water as a family of four uses in 19 1/2 months

## Facts

### **Comparison of river flows (CFS)**

River	January Mean CFS	July Mean CFS
Columbia (at Dalles) .....	118,200 .....	301,200
Coquille (at Powers) .....	1,816 .....	61.5
Umatilla (at mouth) .....	707 .....	20
Umpqua (at Elkton) .....	15,940 .....	1,736
Willamette (at Salem) .....	47,860 .....	7,673
Mill Creek (at North Salem High) .....	272 .....	52
Salem's 12th Street Canal.....	50 (target) .....	50 (target)

### **So, how long would it take these rivers to fill up the Oregon State Capitol Building (3.2 million cubic feet)?**

On average, in January, it would take 67 seconds of the Willamette flow

It would take 3 minutes and 21 seconds of the January Umpqua flow

It would take 75 minutes, 26 seconds of a typical Umatilla winter flow

. . . and only **10 1/2 seconds** of an average summer Columbia flow

### **Filling up the Capitol Building seems like a waste of water, so what could we really do with 3.2 million cubic feet of water? (this equals almost 73.5 acre-feet or almost 24 million gallons of water)**

- √ Supply the families and businesses of Wilsonville for almost 5 1/2 days
- √ Supply the families and businesses of Klamath Falls for a little more than 3 days
- √ Supply over 177,000 Oregonians with water for a day (for domestic uses)
- √ Irrigate approximately 25 acres of farmland for a season—roughly half the main campus area at Willamette University

## **Department of Environmental Quality Water Quality Authorities**

DEQ implements both federal and state statutes and regulations to protect Oregon's water quality. The federal Clean Water Act (CWA) is the impetus for most aspects of Oregon's surface water quality protection efforts. The primary objective of the CWA is to restore and maintain the integrity of the nation's waters. DEQ's activities related to this authority include the following:

- Developing water quality standards to protect beneficial uses of Oregon's waterbodies (e.g., domestic and industrial water supply, fisheries, aquatic life, wildlife, agriculture, navigation, hydroelectric power, recreation, and aesthetics).
- Developing a list of impaired waterbodies (the "303(d) List") and Total Maximum Daily Load determinations (TMDL's) to restore those impaired waterbodies.
- Implementing programs and funding projects to control nonpoint sources of pollution.
- Issuing and enforcing permits for discharges of pollutants to surface waters.
- Issuing low-interest loans for upgrades of sewage treatment plants and nonpoint source pollution control projects.
- Certifying that federal licenses and permits for hydropower and dredge/fill operations meet state water quality standards

DEQ also implements a couple of programs under the federal Safe Drinking Water Act, although it is the Oregon Department of Human Services (DHS) that carries the main responsibilities under this law. DEQ works closely with DHS to implement the Source Water Assessment Program, which delineates the area surrounding drinking water supplies (surface water or groundwater sources) to assess the potential pollution risks. This empowers communities to take necessary actions to protect their water supplies. DEQ also implements the Underground Injection Control Program that regulates various types of sumps, drainfields, cesspools and disposal wells to ensure that the operation of these facilities does not threaten groundwater quality.

Oregon's water quality protection is also based on Oregon Revised Statutes (ORS 468B) and Oregon Administrative Rules (Chapter 340). Two key areas of state law that complement the federal authorities include the on-site sewage treatment and disposal statutes (dating back to the early 1970s) which regulates the installation of septic systems, and the Groundwater Protection Act of 1989 which encourages a variety of actions to ensure the protection of Oregon's groundwater resources.

In addition to these regulatory programs, DEQ is very active in monitoring and assessing water quality throughout Oregon. DEQ is also an active participant in the Oregon Plan for Salmon and Watersheds and related watershed restoration efforts.

The following information provides a mini "status report" on the state of Oregon's waters and some of DEQ's high priority activities aimed at restoring and protecting the quality of these waters.

### Good News for Oregon's Rivers and Streams

- The Oregon Water Quality Index indicates that water quality is improving at 70% of the 125 monitoring sites located throughout the state, and only 1% of those sites show decreasing water quality. Of the 12 monitoring sites located in basins where TMDLs are being implemented, 11 are showing water quality improvements.
- DEQ has completed and received EPA approval on almost 300 Total Maximum Daily Loads since January 1, 2000. This puts Oregon on track to be ahead of the Federal District Court's Consent Order to have 310 TMDLs completed by 2004.
- An increase in federal resources has allowed DEQ to maintain a presence in watersheds where TMDLs have been completed. This will help ensure that water quality improvements are achieved.
- DEQ has recently begun synchronizing the update of wastewater permits on a watershed basis. By addressing all permits within a watershed at the same time, agency resources for data gathering and analysis, public notification and technical assistance will stretch further. Additional benefits of this approach include enhanced opportunities for public awareness and involvement, greater consistency between permits, and improved environmental decision-making.
- DEQ will be proposing to add or revise more than 100 water quality standards over the next year. The number of revisions is high because of a major update of the water quality criteria for toxic pollutants. With the adoption of these standards, DEQ will be able to better protect fish and other aquatic species and the health of Oregonians.

### Challenges

- Oregon has over 110,000 miles of rivers and streams. Oregonians expect these rivers to be clean and healthy for people and fish. DEQ has reviewed water quality data for about one third of Oregon's rivers and streams and about 30% of those don't meet clean water standards. That's over 13,000 miles of rivers and streams.
- Poor water quality threatens many of our native salmon with extinction and formal listing under the Endangered Species Act. Some waterbodies, like the Willamette, have fish consumption advisories posted because of contamination with hazardous chemicals like mercury. Oregon's waters have problems with temperature, bacteria, sedimentation, dissolved oxygen, growth of aquatic weeds, toxic chemicals, and habitat and flow modifications.

- The requirements of the Endangered Species Act often overlap with Clean Water Act requirements, which may result in confusion and burdensome reporting requirements for the regulated community.
- According to EPA's workload model, DEQ's wastewater permitting program continues to operate at a level well below that which is needed to handle the permit load. This has caused DEQ to reduce the resources available for technical assistance and compliance efforts, and has resulted in a backlog of expired permits.
- Some complex environmental problems require the focused attention of more than one Division within DEQ and require cross-program coordination. For example, contaminated sediments and mercury-laden runoff from abandoned mines are issues that span the regulatory responsibilities of both the Water Quality and Land Quality Divisions.

### DEQ Strategies

To address the challenges mentioned above and other high priority objectives, the Water Quality Program's current priorities include the following:

- Continue to prioritize TMDL work in order to stay on track with the agreed upon schedule with EPA.
- Continue to work with other natural resource agencies to implement the Oregon Plan for Salmon and Watersheds. This coordinated effort has increased the attention and efforts of state agencies and other partners on the water quality needs of salmonids as well as overall watershed health.
- Work closely with EPA and other federal partners to coordinate on ESA activities. This includes collaborating on setting priorities and ensuring early and frequent communication on policy and rule development activities.
- Work with EPA in 2002 to formally undertake a review of the wastewater permitting program to assess its strengths and weaknesses and chart a course for its future.
- Work collaboratively with EPA to develop and test a "pilot" of a comprehensive watershed-based approach for addressing municipal wet weather issues (e.g., stormwater, combined sewer overflows).
- Proceed with the "Wastewater Liability to Asset" effort, a long-term strategy initiated by DEQ in 2001 that aims at encouraging the beneficial reuse of treated wastewater for non-potable water needs.
- Work with other DEQ Divisions to undertake cross-program initiatives on complex environmental issues such as toxics, abandoned mines, and contaminated sediments.



## MEMORANDUM

**TO:** Water Resources Commission and Environmental Quality Commission

**FROM:** Dwight French, Water Resources Department, Water Rights Manager, and Karen Tarnow, Department of Environmental Quality, Assistant to the Water Quality Administrator

**SUBJECT:** **Interagency Coordination**  
Joint Meeting of the WRC and EQC, June 6, 2002

### I. Issue Statement

In 1996, Governor Kitzhaber convened the Water Quality and Water Quantity Task Force to evaluate the effectiveness and coordination of agencies involved in state water management. This report describes the recommendations of the 1997 Report of the Task Force and discusses coordination between the Department of Environmental Quality (DEQ) and the Water Resources Department (WRD) resulting from these recommendations. The report also discusses potential future collaboration related to the Task Force report recommendations.

### II. Background

The Water Quality and Water Quantity Task Force was convened in 1996 to examine the management of water quality and water quantity in the state. Principal agencies represented on the Task Force included: WRD, DEQ, Department of Fish and Wildlife (ODFW) and Department of Agriculture (ODA). Agency directors and a representative of their respective board or commission served on the Task Force steering committee. The Task Force also included agency staff and stakeholder groups representing conservation, local government, and agricultural interests.

The goal of the Task Force was to evaluate the regulatory responsibilities of state agencies involved in water management and provide recommendations for more effectively integrating water quality and water quantity management. The full report of the Task Force is Attachment 1.

The recommendations of the Task Force focused on three short-term objectives:

1. integration of water quality limited streams (303(d) listed streams) into the public interest review of water right applications;
2. evaluation of the water right transfer process, examining injury to existing water rights and point source pollution permit holders based on water quality; and

3. examination of how agencies such as DEQ could more effectively protect water quality, recreation, and fish and wildlife through requests for instream water rights.

The Task Force effort and recommendations notably increased the level of coordination between the agencies – a pattern that continues today. Two areas of activity and interest – the review of water rights applications and the acquisition of instream water rights - are highlighted below. These illustrate both the increased level of interagency coordination and potential directions for the future coordination on water quality/water quantity issues.

### **III. Discussion**

#### **1) Water Right Applications**

In order to approve a water right application, WRD must determine that a proposed water use would not impair or be detrimental to the public interest. The water right statutes and rules provide an opportunity to comment on and/or protest issuance of a permit on a number of grounds, including concerns related to the public interest. In addition, WRD rules provide for an interagency review of any water right application in an area that provides habitat for sensitive, threatened or endangered fish species. This framework provides multiple “on ramps” for water quality interests to be raised and addressed. To date, DEQ participation has focused on water right applications in areas where water quality standards are likely to protect fish species.

In addition to these opportunities to comment, WRD and DEQ have developed a process to incorporate consideration of all water quality limited streams (303(d) listed streams) into the review of water right applications. In the initial review of an application, WRD staff notify applicants and DEQ if the proposed water use occurs within a stream reach that DEQ has determined to have impaired water quality. During the water right review process DEQ may provide comments regarding whether the application should be conditioned or denied to prevent water quality impairment in a manner that could be detrimental to the public interest.

It is critical that water rights applications be treated consistently on a statewide basis. To accomplish this, WRD and DEQ continue to work together on ways to streamline the application review process and ensure consistent and appropriate outcomes for applicants.

#### **2) Instream Rights**

In 1987, the Oregon Legislature passed a law providing for issuance of instream water rights. This law allows ODFW, DEQ and the Parks and Recreation Department (OPRD) to apply for instream rights for the purpose of fish protection, minimizing the effects of pollution, or maintaining recreational uses, respectively. A total of 34 instream water right applications have been filed by DEQ. These instream water rights were approved in

1996 and are all located in the Willamette Basin. They are part of a total of some 1,500 instream water rights statewide that have been approved since 1987.

The instream rights that DEQ requested were based on calculations estimating the lowest flow levels that would occur over seven consecutive days in a ten year period, i.e., these flows would only be experienced during the most extreme drought conditions. DEQ calculates the level of pollutant discharge allowed based upon these flow levels in order to protect instream water quality under low flow conditions. For this reason, it is likely that the instream flow levels indicated in these water rights will be met most of the time.

In their 1997 report, the Water Quality and Water Quantity Task Force anticipated that water right transfers would be utilized more as sources of available water dwindle. Transfers may provide a means for water users to meet their water needs in areas that are fully appropriated, that is, water for new water right permits is not available. Through transfers, water right holders can make changes to existing rights to allow water to be used at a new location, to appropriate water from a different point on the same source, or to apply water to a different type of use than was allowed under the original right. ORS 540.505 to 540.580. However, a water right transfer is not allowed if the proposed change results in injury to another existing water right.

In some circumstances, water right transfers could lead to water quality issues but no "injury" to an existing water right (e.g., a point of diversion transfer upstream that significantly decreases streamflow in a segment where no instream water right exists). In this example, an instream water right for water quality protections would preclude such an occurrence because of the required injury review.

The Task Force recommended that DEQ examine the need for instream water rights to protect NPDES permit holders as DEQ conducts base flow analyses to establish Total Maximum Daily Loads (TMDLs) on water quality limited streams. Since the Task Force report was published, several TMDLs have been completed and implementation is beginning. DEQ is evaluating this aspect of TMDL implementation, and WRD has committed to assist DEQ in making the instream water right application filing process as efficient as possible.

The Task Force also recommended that WRD's public notice efforts concerning water right transfers be more targeted and that stakeholders provide recommendations to improve education regarding potential water quality problems resulting from transfer applications. Suggested improvements to the notice included making transfer applications available on the WRD website and sending notices to DEQ and local watershed councils so that dischargers and other stakeholders would be better informed. WRD publishes a summary of each water right transfer application filed each week in its weekly notice of water right actions. This weekly notice is posted on the agency webpage and is accessible to the public at no cost. The public notice includes information relating to the right proposed to be changed as well as the proposed change.

#### **IV. Conclusions**

Coordination between DEQ and WRD continues to improve. Our agencies continue to work together to address the complex issues at the intersection of our water resource authorities to improve the management and protection of Oregon's water resources.

#### Attachments:

1. Report by the Water Quality and Water Quantity Task Force. February 1997

Dwight French  
Water Resources Department  
Water Rights Division  
503-378-8455 ext. 268

Karen Tarnow  
Department of Environmental Quality  
Water Quality Division  
503-229-5988

A report  
*by the*

*Water* Quality.  
Task Force  
Quantity

February 1997

Submitted to  
Governor John A. Kitzhaber, M.D.

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## **I. EXECUTIVE SUMMARY**

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In the fall of 1996, Governor Kitzhaber convened the Water Quality and Water Quantity Task Force to evaluate the effectiveness and coordination of state agencies involved with water management in the state. The goal of the task force is to make recommendations to improve the management of water resources by more effectively integrating water quality and water quantity concerns. The task force divided its charge into long and short-term objectives. This report discusses the short-term objectives of the task force and provides interim recommendations. The task force examined how to better integrate the Department of Environmental Quality's list of water quality limited streams [303(d) list] and the Department of Agriculture's Water Quality Management Area Plans required under Senate Bill 1010 (1993), into the Water Resources Department's existing water right application and water right transfer processes. In addition, the task force looked at the coordination of instream water rights between agencies. The task force will continue to meet to discuss long-term objectives and will submit a separate report to the Governor.

Agency roles and responsibilities pertaining to water quality and quantity have been outlined. The four state agencies involved are the Water Resources Department (WRD), Department of Environmental Quality (DEQ), Department of Fish and Wildlife (ODFW) and the Oregon Department of Agriculture (ODA). The task force offers the following recommendations to improve the coordination between these agencies and the public.

- **Water Right Applications**

The task force recommends a process which utilizes the existing water right application and public review process. WRD staff will conduct a review of the 303(d) list and any Water Quality Management Area Plans during the initial review stage of a water right application. If an application is within a reach of a stream on the 303(d) list or within a water quality management area, the applicant, DEQ and/or ODA will be informed by letter. The applicant will be encouraged to contact DEQ or ODA to develop mitigation measures to alleviate any water quality concerns. Otherwise, standard mitigation measures will be imposed.

- **Water right transfers**

The task force recommends that public notice efforts concerning water right transfers be more targeted. WRD is to work with stakeholders to improve education about potential water quality problems resulting from transfer applications.

- **Instream water rights**

Agencies able to apply for instream water rights are encouraged to coordinate with each other and prioritize those streams needing protection of flows, especially with respect to maintaining water quality.

## II. INTRODUCTION

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Water quality and water quantity are unequivocally related. As Oregon's population continues to grow, more demands are placed on our water resources from industry, irrigation, municipal use, recreation and instream uses. A fundamental state priority, implicit in state natural resource agency missions, is to achieve a balance between healthy, clean watersheds and waterways, viable fish and wildlife habitat and adequate and safe water supplies to support growth and maintain existing needs. In Oregon, multiple state agencies have regulatory authority over different aspects of water management, making agency coordination imperative and management of the resource a challenge.

The Water Resources Department (WRD) is responsible for addressing Oregon's water supply needs, while the Department of Environmental Quality (DEQ) is responsible for water quality. Other agencies have missions that directly involve the use and management of water resources such as the Oregon Department of Fish and Wildlife (ODFW) to protect fish and wildlife and their habitats, Oregon Department of Agriculture (ODA) to protect and develop agricultural resources. The Division of State Lands (DSL) manages waterways and wetlands and the Department of Forestry manages forest practices to protect riparian areas and other water resources. The Parks and Recreation Department is responsible for state scenic waterways, maintaining water instream for recreation and aesthetic values and is the lead agency on federal wild and scenic rivers.

Within these varied regulatory structures, different aspects of the water resource are managed to meet the specific mission and goals for that particular agency. Most often, the agencies manage the resource in concert with each other. However, there is a possibility of conflicting objectives if agencies do not clearly coordinate their responsibilities and programs. For example, "beneficial uses" are defined differently by WRD and DEQ. This may cause confusion when the agencies work together to determine priorities. In another example, ODFW, Department of Parks and Recreation and DEQ can all apply for instream water rights, but it is unclear if management objectives are coordinated.

In the fall of 1996, Governor Kitzhaber convened a task force to examine the management of water quality and quantity in the state of Oregon. The need to examine the relationship between water quantity and water quality became increasingly apparent during WRD's rulemaking to implement Senate Bill 674, a new water right application process, from the 1995 legislative session. Interest groups raised questions about whether water quality concerns should be addressed when issuing water rights. Of specific concern was how to integrate the new list of water quality limited streams under Section 303(d) of the federal Clean Water Act, in the new water rights application process. Deciding how WRD should consider water quality concerns in the water right application process was deferred until this task force could convene and make recommendations.



The Governor asked the task force to examine and evaluate the administrative and regulatory responsibilities of the state agencies involved in water management and to make recommendations on changes that would lead to more effective management of water quality and quantity. The four primary state agencies involved in the task force are the Water Resources Department, Department of Environmental Quality, Department of Fish and Wildlife and Department of Agriculture. Other state, federal and local government agencies, along with environmental and water user groups participate on the task force. A complete task force membership can be found in Appendix A. Serving as the steering committee for the task force are agency commissioners and directors from each of the four lead state agencies.

It should be noted that this is an evolving document. This report highlights the agencies and organizations involved, task force objectives and recommendations. Changes imposed by the 1997 legislature may influence how the task force's recommendations are implemented. The task force will continue to meet after the legislative session to address long term issues, integrate changes and new information as needed, as well as evaluate the effectiveness of its recommendations.

### **III. TASK FORCE OBJECTIVES**

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The task force decided that because of the breadth and complexity of issues relating to water quality and quantity management, the objectives of the task force should be broken down into short-term and long term objectives. This report focuses on the short-term objectives. The short-term objectives are driven by an immediate need to develop a process that addresses water quality concerns in the water right application process. The task force has agreed to continue to meet into 1997 to focus on more complex, long-term issues, to continue discussing the issues and recommendations identified in this report, and to prepare a second report for the Governor.

#### **A. Short-term Objectives**

The task force developed the following short-term objectives:

- develop a process to integrate DEQ's 303(d) list of water quality limited streams within the existing WRD water right application public interest review process existing in current laws and rules;
- analyze the impact of ODA's SB 1010 Water Quality Management Area Plans on the WRD water right decision making process;

- evaluate the water right transfer process, examining injury to existing water rights and National Pollution Discharge Elimination System (NPDES) permit holders based on water quality; and
- examine how the agencies authorized to request instream water rights (ISWRs) can better coordinate their efforts to more effectively protect water quality, recreation, and fish and wildlife.

## B. Long-term Objectives

Long-term issues identified by the task force will focus primarily on broader policy issues. These will be discussed when the task force and steering committee reconvene after the 1997 legislative session. At that time, the task force will revisit and evaluate the effectiveness of the recommendations made in this report and incorporate any changes imposed by the legislature. Long-term issues to be discussed by the task force include:

- gaps and overlaps in agency roles and responsibilities;
- potential misunderstanding by the public of agency roles and responsibilities;
- growth and long-term water management;
- beneficial uses;
- reservations;
- transfers (during rule revisions);
- potential conflict of agency actions;
- protection of water quality of streams not included or removed from 303(d) list when issuing water rights and transfers;
- legislative and rule changes, if needed.

## IV. AGENCY ROLES AND RESPONSIBILITIES

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To better understand the objectives of the task force and its recommendations, it is important to understand the primary agency roles and responsibilities and their respective missions. The following outline describes each of the four agencies' roles and responsibilities as they relate to water quality and quantity.

### A. Oregon Water Resources Department

***Mission:*** "To serve the public by practicing and promoting wise long-term water management."

The goals of this mission are to restore and protect streamflows and watersheds in order to ensure the long-term sustainability of Oregon's ecosystems and quality of life as well as to directly address Oregon's water supply needs. WRD is the state agency charged with administration of the laws governing surface and groundwater resources. One of WRD's primary responsibilities, among

others, is to review water right applications and where appropriate, issue permits. Another is to protect existing water right holders from injury. In 1995, WRD implemented SB 674, a new process to review and process water right applications. WRD also processes and holds in trust instream water rights on behalf of the state. Instream water rights can be requested by DEQ for pollution abatement and other public uses, by ODFW to protect and enhance fish and fish habitat and by the Department of Parks, for recreation and to protect scenic attraction.

In addition to processing water right applications for new water uses, WRD also processes transfer applications and reservations. Transfers allow a water right holder to change the use, place of use, point of diversion or point of appropriation of water. Reservations allow state agencies to "reserve" water for future economic development.

## B. Oregon Department of Environmental Quality

**Mission: "To be an active force to restore, enhance and maintain the quality of Oregon's air, water and land."**

DEQ is responsible for establishing and enforcing water quality standards for waters of the state pursuant to the federal Clean Water Act. Water quality standards consist of three elements:

- the designation of beneficial uses to which waters are put;
- criteria to protect beneficial uses;
- anti-degradation policy to ensure that water quality is not degraded.

Water quality standards are enforced through National Pollution Discharge Elimination System (NPDES) permits for point sources such as industrial dischargers or municipalities. Permits contain effluent limits to ensure that instream water quality standards are met. The federal Clean Water Act requires that water quality standards be reviewed every three years.

The Clean Water Act also requires DEQ to produce a list of water bodies in Oregon that do not meet water quality standards. This is known as the 303(d) list. There are nearly 1000 water quality limited stream segments in Oregon. This is a dramatic increase in number over previous years, and reflects the new amount of information obtained by DEQ while compiling the list. The increase doesn't necessarily indicate that water quality is getting worse. However, Oregon's surface and groundwater quality is under constant threat of pollution from increased population, recreation, development, agriculture, urban run-off and destruction of streamside habitat. Therefore, increased coordination with WRD's issuance of water rights becomes imperative.

To address water quality concerns, DEQ is required to set total maximum daily loads (TMDLs) of pollutants that can be discharged into these water quality limited stream segments. TMDLs are set at levels that will ensure that water quality standards are met. To establish TMDLs, DEQ determines how much pollutant a stream can withstand and still meet water quality standards. This is called waste load allocation. Waste load allocations for point sources, such as industry, are implemented through NPDES permits. Non-point source concerns are addressed through the development of management plans by designated management agencies, coordinated by DEQ. As a result of SB 1010 in 1993, ODA is the lead agency for the development of management plans to control pollution from agricultural lands. The plan's recommendations will be implemented by agricultural operators to ensure that non-point source pollution is managed to maintain water quality standards.

Water quantity plays a critical role in setting TMDLs, since calculations are based on stream flows. If stream flows are reduced, DEQ may require additional effluent treatment by point sources or more stringent requirements on non-point sources.

DEQ may apply for instream water rights from WRD for pollution abatement.

### C. Oregon Department of Fish and Wildlife

**Mission: "To protect and enhance Oregon's fish and wildlife and their habitats for use and enjoyment by present and future generations."**

To accomplish this goal ODFW has responsibility to prevent serious depletion of any indigenous species and to provide optimum recreational and aesthetic benefits. ODFW is interested in the management of the land and water of the state in order to enhance production and public enjoyment of fish and wildlife in a manner that is compatible with the primary use of the land and waters of the state. ODFW functions as a scientific advisor to WRD and DEQ. This ensures ODFW's involvement in actions that affect fish and wildlife.

ODFW statutes affecting water rights involve fish screening and passage. ODFW requires screening of all new water diversions on fish bearing streams to prevent fish from entering diversion structures. Diverters of less than 30 cubic feet per second have the opportunity to participate in a voluntary program of cost sharing with ODFW to construct fish screens. ODFW first seeks diverters who become part of the program voluntarily, however, ODFW still has the authority to require diverters to install fish screens at existing diversions regardless of size. Fishways, to allow fish passage, are required at all artificial obstructions in fish bearing streams. Additionally, ODFW can apply for instream water rights to protect instream flows for fish, wildlife and aquatic life or their habitats. Instream flow levels are determined to maintain fish passage, spawning and rearing, but could also consider water quality needs of fish and wildlife.

## D. Oregon Department of Agriculture

***Mission: "To ensure food safety and provide consumer protection, protect agricultural natural resources and promote economic development in the agricultural industry."***

While ODA does not have regulatory authority over water allocation, the agency does have authority to develop programs and projects for the prevention and control of surface and ground water pollution arising from agricultural activities and soil erosion. SB 502 (1995) gave ODA the authority (ORS 561.191) to regulate agricultural practices to protect surface and groundwater quality. Planning emphasis is given to water quality limited basins and other areas where an agricultural water quality management plan is required by state or federal law. ODA has regulatory oversight of confined animal feeding operations which can pose water quality concerns.

Watersheds on the 303(d) list are candidates for involvement with ODA through SB 1010 (ORS 568.900-933). SB 1010 directs ODA to work with farmers and ranchers to develop overall water quality management plans for listed watersheds. Management plans are aimed at reducing non-point source pollution caused by agricultural and ranching practices.

In regards to water allocation, ODA works with the agricultural community to make applications for water needs within the water reservations process to set aside water for future economic use.

## V. RECOMMENDATIONS

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The task force developed a series of interim recommendations to address the short-term issues identified in Section III. The recommendations are based on increased agency coordination as well as public education and involvement. The task force looked at current agency processes and ways to utilize existing frameworks to address the issues identified by the short-term objectives. The following describes the task force's recommendations as they relate to integrating DEQ's 303(d) list and SB 1010 planning process into the water right application process, transfers and instream water rights. It should be noted that outcomes from the 1997 legislative session and discussion of long-term objectives could affect recommendations and how they are implemented.

### A. Water Right Applications

Oregon water law directs WRD to consider water quality impacts when considering water right applications and developing integrated state water resource policies. However, how water quality impacts are integrated is not

clearly defined. The task force determined that the combination of strict timelines and lack of guidance pertaining to water quality inherent in the new water right application process, mandated by SB 674, makes it difficult to adequately consider the complexity of water quality concerns brought about by the new 303(d) listing. The task force concurred that the existing public review process should remain unchanged for now, but that improved coordination between agencies was necessary.

Currently, a water right application is filed by an applicant and WRD completes an initial review of the application. Staff reviews the request to determine if:

- the use of water is compatible with basin plans;
- the use of water is compatible with other rules of the Water Resources Commission;
- water is available; and
- there are no other statutory restrictions or known impediments.

Initial reviews appear in WRD's weekly public notice and the public has 30 days to review the initial review and make comments citing specific public interest issues that will be impaired or detrimentally affected by development of the water right. At this time, DEQ and other parties may make comments relating to water quality impacts. Lastly, comments are reviewed and considered when WRD evaluates the public interest in preparation for the proposed final order (PFO). The public has 45 days to comment, file protests or request standing on the PFO. WRD reviews any comments submitted before issuing a final order. If a protest is filed, the Water Resources Department decides whether or not to issue a final order or schedule a contested case hearing.

#### 1. *DEQ's 303(d) list*

The task force recognized that because of SB 674's strict timelines and the increasing complexity of the issuance of water rights, the public and the state agencies would benefit from additional efforts to provide a coordinated agency process for consideration of 303(d) listed streams during WRD's water right application review. The task force's recommendation utilizes the existing water right application process, including the agency review opportunity during the initial review of the application. (See Figure 1) All of the 303(d) listed streams will be integrated into WRD's resource information database. If a water right application is filed within a reach of a 303(d) listed stream, then DEQ is automatically sent a copy of the initial review, application map and other application information. ODA will also be notified in case the application is in an agricultural area that could be affected by an existing or proposed water quality management plan required under SB 1010. This would be done in addition to the initial review listing in the public notice and as part of the initial review process.



DEQ will coordinate the notification of other agencies that may have water quality concerns and will recommend specific permit conditions to WRD accordingly.

Along with the initial review, the applicant will be notified that the water right application is in a waterbody listed on the 303(d) list. DEQ will send the applicant a letter that will provide information on what the 303(d) list means and how it could affect their application. Applicants will be encouraged by both WRD in the initial review and by DEQ to contact their regional DEQ office to discuss possible mitigation options to facilitate the processing of their application. If the applicant does not contact DEQ, then DEQ, in consultation with other agencies, will recommend specific conditions be placed on the application that are appropriate for the application and stream conditions, if necessary. If there is no inter-agency consultation, WRD may condition a water right with a pre-determined set of generic conditions provided by DEQ to ensure some level of mitigation and protection of water quality.

DEQ, the applicant and any other interested party will have 30 days to comment on the initial review. These comments may contain any mitigation agreements made between WRD, DEQ, other agencies and the applicant. All comments received by WRD will be considered when it prepares its PFO. Any additional information that is provided by the applicant will be forwarded to DEQ. All parties have 45 days to support or oppose the PFO if it is issued and posted in WRD's weekly public notice.

Early mitigation consultation opportunities between the applicant and the agencies will improve the consideration of water quality issues if both agencies participate fully throughout the process. This procedural step will require WRD's water right staff to become familiar with the 303(d) list and will incorporate another step in the notification process. DEQ staff will need to interact more with the public and other agencies on individual applications to develop mitigation plans and permit conditions. Neither agency felt that this would unduly affect their staff and that they would be able to fully participate in this process. There is a recognition among the task force that these recommendations will improve coordination of a workload that already exists. Approval of the Governor's budget will also provide funding for additional staff.

## **2. *Agricultural Water Quality Management Area Plans***

When considering the issue of Agricultural Water Quality Management Area Plans, the task force suggested a process similar to and integrated with the process outlined above for 303(d) listed streams.



All areas which have an approved Agricultural Water Quality Management Area Plan in place will be integrated into WRD's database and included in the initial review of the application. If a water right application is filed within a stream reach of an area having an approved plan, DEQ and ODA will automatically be sent a copy of the initial review, application map and application information. This would be done in addition to posting in the public notice.

Along with the initial review, notification and whether a 303(d) listed stream is involved, the applicant will also be notified if an approved management plan is in place for their area. Applicants would be asked to contact ODA to discuss compliance with the plan and possible mitigation. Unlike mitigation measures for the 303(d) list, applications affected by a Water Quality Management Area Plan will be conditioned to ensure compliance with the plan.

In areas where no Water Quality Management Plan has yet been adopted, ODA will consult with DEQ, as staff time permits, to propose mitigation that would be similar to the conditions of a proposed plan. Flexibility will be built into the water right permit conditions so that when a new Water Quality Management Area Plan is adopted, requirements of the new plan can be included.

## **B. Water Right Transfers**

Water right transfers allow a water right holder to change the use, place of use, point of diversion or point of appropriation of water. Current law prohibits any water right transfers that would result in the enlargement of a water right or injury to other water right holders. Unlike new water right applications, proposed transfers are not required to comply with basin program classifications and are not subject to public interest review. Therefore, any water quality concerns must be identified as injury to an existing water right. To date, there has never been a protest to a transfer based on injury to the water quality of a water right. However, it is anticipated that transfers will be utilized more in the future as unappropriated water sources dwindle and the likelihood of injury to a water right, based on water quality, will increase. The question remains, how should water quality concerns be incorporated into the transfer application process and how do you evaluate water quality concerns as they relate to a determination of injury?

Transfers could affect water quality in several ways. If a water right holder moves a point of diversion upstream of a discharger, base flows in the stream at the point of discharge could be affected, concentrating pollutants and causing injury to downstream water right holders. The transfer could cause costly impacts to NPDES permit holders who, as a result of the transfer, now may be violating their permits. A point of diversion change could also injure water quality if the instream water right is based on temperature. The transfer could reduce the flow in the waterway for a particular reach of stream, and in effect, raise the water temperature.

DEQ regulates dischargers through the issuance of National Pollution Discharge Elimination System (NPDES) permits, as required by the federal Clean Water Act. NPDES permits contain effluent limits to ensure that instream water quality standards are met by the discharger. With this in mind, the task force explored solutions to prevent transfers from affecting NPDES permits and downstream water right holders. One problem with transfers is notifying those potentially affected by the transfer. Most dischargers and downstream water right holders are not likely to read WRD's weekly public notice to see if a potential transfer could affect them. The other problem is that often NPDES permit holders do not have water rights to protect base flows and would not have standing to protest a transfer.

Ideally, dischargers would have water rights to ensure that base flows will maintain water quality standards. More realistically NPDES permit holders would fund DEQ to apply for ISWRs on their behalf to protect base flows.

Long-term goals for the transfer process are to promote a watershed based approach to evaluate transfers and to improve notice to potential injury claimants. To achieve this, DEQ will examine the need for ISWRs to protect NPDES permit holders as they conduct base flow analysis to establish TMDLs through basin-wide planning. In the short-term, the task force recommends that transfer application information be made available on WRD's Web Page. Notices of transfer applications will be sent to DEQ and local watershed councils in an effort to alert water right holders potentially subject to injury. WRD will also work with the League of Oregon Cities and Associated Oregon Industries to assist with educating dischargers about the potential affects of transfers. DEQ will provide WRD Region Offices with a list of dischargers on each reach of stream so they can consider impacts to water right holders as they review transfer applications.

### C. Instream Water Rights (ISWR)

Three state agencies, DEQ, ODFW and the Oregon Parks and Recreation Department (OPRD) can apply for instream water rights. DEQ can apply for instream water rights to protect water quality. ODFW can apply to protect instream flows for fish, wildlife and aquatic life or their habitats. OPRD can apply for instream water rights to enhance recreation and scenic resources. To date, a total of 957 instream water rights have been filed with the WRD: 883 filed by ODFW, 38 filed by ODFW and OPRD, 2 filed by OPRD and 34 filed by DEQ.

The task force is concerned that applications for ISWRs are not being closely coordinated between DEQ and ODFW or that staff is inadequate to apply for ISWRs. Another concern is that state agencies use different methodologies to determine instream flow requirements to protect water quality and fish habitat. There may be opportunities in the future to develop a methodology that addresses both issues at once.

To ensure better coordination, ODFW and DEQ will work more closely together on applications for ISWRs. ODFW has committed to review the 303(d) listed streams and prioritize those water quality limited streams needing protection. Streams that do not have minimum instream flows or are not protected under the State Scenic Waterway Act (ORS 390.835) will receive priority consideration. ODFW's ultimate goal is to have instream water rights on all streams in the state that support fish and wildlife populations and their habitats.

ODFW is currently developing a resource matrix which is a consolidation of information from ODFW, DEQ, WRD, OPRD and federal agencies. The matrix contains information on stream reaches and will be used as a tool for prioritization and coordination prior to the instream water right application process. DEQ, OPRD and ODFW will also look to the U.S. Environmental Protection Agency or other sources for funding to help identify and prioritize streams needing instream water rights for water quality, recreation and habitat protection.

## VII. CONCLUSION

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The proposals outlined here were a result of a collaborative process. There are still a number of outstanding issues to address. The task force and steering committee are committed to meet after the 1997 legislative session to address long-term objectives. Work is still ahead to implement the recommendations and the task force will serve to follow-up on the process of implementation. In the short-term, the task force is satisfied that the above recommendations will better integrate water quality concerns into the water right application and public interest review process, taking an important first step toward integrating water quality and water quantity management in Oregon.

## MEMORANDUM

**TO:** Water Resources Commission and Environmental Quality Commission

**FROM:** Dick Pedersen, Department of Environmental Quality (DEQ), Watershed Management Section Manager, Tom Paul, Water Resources Department (WRD) Field Services Administrator, Don Butcher, DEQ Eastern Region TMDL Specialist, and Mike Ladd, WRD North Central Region Manager

**SUBJECT:** **TMDL Development and Implementation**  
Joint Meeting of the WRC and EQC, June 6, 2002

### **I. Issue Statement**

DEQ is responsible for maintaining and restoring water quality in Oregon. When DEQ determines that water quality standards are not being met in a particular body of water, it calculates pollution load limits, known as Total Maximum Daily Loads (TMDLs), for each pollutant entering the waterway. TMDLs describe the amount of each pollutant a waterway can receive and still not violate water quality standards. This process is described in detail in Attachment 1.

The TMDL developed for the Umatilla Basin demonstrates the clear link between water quantity, i.e. low streamflows, and water quality impacts. Low flows can affect water quality in a variety of ways. The well-known adage that "dilution is the solution to pollution" relates to the fact that pollutants can become more concentrated at lower flows. Another critical relationship, particularly to the cold-water loving salmon that inhabit many Oregon streams, is that water temperatures are likely to increase when flows are lowered.

Unlike the other pollutants addressed through TMDLs, there is no explicit standard for instream flows and DEQ does not develop TMDLs for instream flows even when low flows are known to be a contributor to water quality problems. In spite of this, the stakeholders involved in the Umatilla TMDL have a keen interest in restoring streamflow and have invested a considerable amount of effort toward this goal. This staff report describes the Umatilla Basin TMDL and highlights several streamflow restoration efforts currently underway that demonstrate the high level of collaboration and cooperation among numerous stakeholders in the basin.

### **II. Background**

#### Umatilla Basin TMDL

On May 9, 2001, the U.S. Environmental Protection Agency approved the Umatilla Basin Total Maximum Daily Load (TMDL). This TMDL was developed by the DEQ in partnership with the Water Resources Department (WRD) and other stakeholders in the Basin. Of particular interest, the Umatilla Basin TMDL clearly demonstrates the close relationship between water quality and water quantity.

The Umatilla Basin is located in the northeastern part of Oregon, and occupies approximately 2,500 square miles. A map of the Umatilla Basin is provided as Attachment 2. Agricultural and rangelands cover more than 80% of the land area, and about 85% of the basin is in private ownership. There are five municipal wastewater treatment plants in the basin that discharge directly to surface waters under discharge permits issued by DEQ.

Water quality problems in the Umatilla Basin include temperature, pH, aquatic weeds and algae, sedimentation, turbidity, ammonia, nitrate, and bacteria. The Umatilla Basin TMDL was developed to address all of these pollutants. In addition, some of the waters in the basin were known to have problems related to habitat and flow. Even though a TMDL is not required for habitat and flow, these issues were addressed for completeness, with stakeholder encouragement.

Three land use workgroups were appointed through DEQ and with additional sponsorship from the Umatilla Basin Watershed Council and the Confederated Tribes of the Umatilla Indian Reservation. These workgroups identified water quality management practices in key sectors (forestry, urban/industrial and transportation). A related group prepared an Agricultural Water Quality Management Plan through Oregon's Senate Bill 1010 process. Another group, the Water Quantity Workgroup, was appointed to identify options for achieving streamflow restoration.

The TMDL process leads to an understanding of the causes of water quality problems. In the Umatilla Basin, the TMDL assessment indicated that the temperature goal of reducing stream warming will be difficult to achieve under the existing streamflow levels, even with restoration of a narrower channel and riparian vegetation. Since the Clean Water Act does not include express authority to allocate flow to meet water quality standards, an alternative approach was needed. The Water Quantity Workgroup developed a plan, recommended a minimum goal of working toward achieving existing Umatilla Basin instream water rights and identified ways that streamflow could be restored. Additionally, DEQ model predictions of temperature for various flow levels helped establish priorities for instream water rights and flow augmentation projects.

DEQ and WRD consider the Umatilla Basin TMDL a model for collaboration and cooperation. Local stakeholders, with the support of DEQ and WRD, continue to be actively engaged in on-the-ground activities that are leading to the water quality improvements that were determined necessary through the TMDL process. Several of these efforts are described below.

#### Water Management:

- WRD manages water in the Umatilla Basin using the McKay and Umatilla River Water Management Plan, developed by a task force of local water users and adopted by the Water Resources Commission in 1991. A key element of the Water Management Plan is the requirement for measuring devices. As a result, 82 of the diversions from the Umatilla River (excluding the river reach within the Confederated Tribes of the Umatilla Indian Reservation) and 29 from McKay Creek below McKay

reservoir now have measuring devices. (McKay Creek is a tributary of the mid-Umatilla River, with a large irrigation/recreation reservoir 5 miles upstream of the Umatilla/McKay confluence.) These devices allow WRD to accurately manage the resource and allow water users to use their water right entitlements. Other management tools such as the 20 stream gaging stations operated by WRD are also critical to managing the exchange flows associated with the Umatilla Basin Project and other flow enhancement projects. As a result of the Umatilla Basin TMDL, an additional gaging station was installed on Wildhorse Creek.

#### Flow Augmentation

- The Umatilla Basin Project (UBP) was developed by the Bureau of Reclamation in cooperation with irrigation districts, WRD, Tribes and numerous other stakeholders to improve habitat conditions and streamflow on the Umatilla River. The Umatilla Basin Project includes a water exchange that delivers mainstem Columbia River water to participating irrigation districts in the Umatilla Basin. In exchange, the irrigation districts leave water in the Umatilla River for instream flow when it is needed for fish. In addition, a large portion of space in McKay Reservoir is set aside for instream flow augmentation. Phases I and II of the UBP were completed by 1995 and involved three of the four major irrigation districts in the Umatilla Basin. Phase III of the Project (currently undergoing feasibility analysis) would deliver Columbia River water to the one remaining large irrigation district.
- The Umatilla Basin TMDL has provided further impetus for securing federal funding for Phase III of the Project. With the completion of Phase III, more Umatilla River streamflow would remain in the Umatilla River, providing additional flows for salmonids and enhancing water quality. Also, more McKay Reservoir stored water would be available for flow augmentation. The cooperation and coordination among many state and federal agencies and local stakeholders has been a key ingredient to the success of the UBP.
- The Echo Meadows Project is a demonstration project designed to divert water from the Umatilla River during high winter flows in December through February and artificially flood lands in the Echo Meadows area near Echo, Oregon. This process was designed to recharge the shallow aquifers of the old flood plain and then discharge water back to the Umatilla River, providing cool mainstem recharge during summer low flow. The project was set up to monitor and collect field data to determine the timing of the cooler ground water discharging back to the Umatilla River and to identify potential benefits to return flows. Due to limited funding, the project was restricted to two days of diverting water during February of 2002. Results of this recharge effort, if any, will be discussed at an annual meeting to review the monitoring data collected and to discuss future project operations.
- The City of Pendleton is in the process of a multi-faceted project to move diversion points for their surface water rights to one common point on the mainstem of the Umatilla River. The city currently holds water rights and permits for 19.7 cubic feet per second of "spring" water and North Fork Umatilla River water as well as a

legislative withdrawal<sup>1</sup> of all water from the North Fork of the Umatilla River. Their project would combine these multiple water rights and points of diversion to a single point of diversion on the mainstem Umatilla River as authorized by SB869 passed in the 2001 legislative session. In doing so, up to 33 river miles of the upper river will have enhanced flows, including cold "spring" water to improve water quality.

### **III. Conclusion**

The implementation of the Umatilla TMDL will continue to rely on active participation of local stakeholders and state and federal agencies. A challenge in the Umatilla Basin and in areas statewide is to find ways to maintain and restore streamflows where water is fully allocated and water quality is dependent on flow restoration. Meeting this challenge will require creative approaches, cooperative partnerships, and a full array of tools to restore flows to improve the quality of Oregon's impaired waterways.

#### **Attachments:**

1. Fact Sheet Improving Water Quality: TMDLs in Oregon
2. Map of Umatilla Basin

Don Butcher  
Eastern Region TMDL Specialist  
Department of Environmental Quality  
(541) 278-4603

Mike Ladd, North Central Region Manager  
Field Services Division  
Water Resources Department  
(541) 278-5456

Tom Paul, Administrator  
Field Services Division  
Water Resources Department  
(503) 378- 8455 ext. 281

Dick Pedersen  
Surface Water Section Manager  
Department of Environmental Quality  
503-229-6345

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<sup>1</sup> In 1941, the State Legislature gave the City of Pendleton, Umatilla County, and its water commission, the right to withdraw all of the water in the North Fork Umatilla River for public or municipal purposes (ORS 538.450) after other senior water rights are met.

# Fact Sheet

## Improving Water Quality: TMDLs in Oregon

### Background

Oregon's rivers, streams and lakes are a valuable resource for the state. Not only do they provide great natural beauty to Oregon, but they also supply the water necessary for drinking water, aquatic life, recreation, industry, and agriculture. With these demands in mind, the Oregon Department of Environmental Quality (DEQ) uses a comprehensive approach to maintaining and improving water quality.

### Using a comprehensive approach

Water quality problems in Oregon's waterways are nothing new. In 1938, the State Sanitary Authority (now known as the DEQ) was created to clean up pollution in the Willamette River with a focus on regulating end-of-pipe or "point source" discharges from cities and industry. This focus continued with passage of the federal Clean Water Act in 1972. During the last 25 years, as point source discharges have been regulated, it became more evident that there are other sources of pollution other than from pipes. These "non-point" sources come from diffuse runoff and habitat destruction, and originate both in urban and rural areas.

Water quality improvement now requires a comprehensive watershed approach to solving pollution problems. This reflects the cumulative effect any activity in a watershed has on overall water quality. To solve water quality problems in a stream, river, lake or estuary, we need to consider the cumulative impact from all upstream sources including groundwater.

### Total Maximum Daily Loads (TMDLs)

Under this new comprehensive strategy to addressing water quality problems, DEQ looks at the water quality of the entire river and watershed rather than whether or not a specific discharge meets its permit requirements. DEQ calculates pollution load limits, known as **Total Maximum Daily Loads (TMDLs)**, for each pollutant entering a body of water. TMDLs describe the amount of each pollutant a waterway can receive and still not violate water quality standards. TMDLs take into account the pollution from all sources, including discharges from industry and sewage treatment facilities; runoff from farms, forests and urban areas; and natural sources such as decaying organic matter or nutrients in soil. TMDLs include a safety

margin for uncertainty and growth that allows for future discharges to a river or stream without exceeding water quality standards.

In the past, rivers and streams may have had several different TMDLs, each one determining the limit for a different pollutant. With its new comprehensive approach, DEQ takes into account all pollutants entering a waterbody and develops TMDLs that will control all pollutants in a particular geographic area, such as a watershed or sub-basin.

The process for establishing a plan to improve water quality begins when the waterbody appears on DEQ's 303(d) list, which lists waterbodies that do not meet water quality standards.

### Developing water quality plans

Federal law requires that streams, rivers, lakes and estuaries that appear on the 303(d) list be managed to meet state water quality standards. In most cases, rivers and streams receive discharges from both point and non-point sources of pollution.

DEQ's comprehensive watershed approach for protecting water quality includes developing TMDLs for both point and non-point sources. DEQ is committed to having federally approved TMDLs on all waterbodies listed on the 1998 303(d) list by the end of the year 2007. This time frame takes into account the urgency to save declining salmon runs, the desire of landowners to begin working on restoration efforts, and the desire of communities to safeguard their drinking water sources.



*Sediment from eroding banks is carried downstream and can impact fish habitat and agriculture.*



State of Oregon  
Department of  
Environmental  
Quality

Water Quality Division  
Watershed  
Management Section  
811 SW 6<sup>th</sup> Avenue  
Portland, OR 97204  
Phone: (503) 229-6345  
(800) 452-4011  
Fax: (503) 229-6037  
Contact: Dick Pedersen  
[www.deq.state.or.us](http://www.deq.state.or.us)



#### When establishing TMDL limits, DEQ:

- Reviews existing data and monitors to determine what pollutant is causing water quality problems and in what amounts it is entering the water. The review and monitoring also attempts to determine how much of the pollution comes from point sources, non-point pollution, such as surface runoff, and how much is naturally occurring.
- Uses techniques such as computer models to determine what affect the pollution is having on the stream or river, and how much of the pollutant can be discharged without exceeding water quality standards in the watershed.
- Uses this information to establish permit limits on the amount of pollutant each pipe can discharge and limits on non-point sources that are controlled through various water quality management plans.

This comprehensive approach focuses on watershed plans developed locally.

#### How plans are developed

Management plans to restore streams and rivers to water quality standards will be developed by government agencies in cooperation with landowners.

- If the land adjacent to a waterbody is agricultural, then the Oregon Department of Agriculture would work with the landowners in the watershed to devise and implement a management plan (as stipulated by Senate Bill 1010).
- If the land is private or state forest, then the Oregon Department of Forestry implements the Forest Practices Act.
- Federal agencies (such the U.S. Forest Service or the Bureau of Land Management) would have responsibility to develop watershed management plans for federal lands.
- In urban and rural areas not covered by other state or federal agencies, cities and counties would develop management plans, working closely with local watershed councils.

These plans are sent to DEQ for inclusion in an overall water quality management plan, which DEQ then submits to the U.S. Environmental Protection Agency (EPA) along with the TMDL. EPA has the responsibility for approving the TMDL.

Not all basins will have TMDLs developed at once. DEQ has prioritized the order for allocating resources to develop TMDLs through the year 2007.

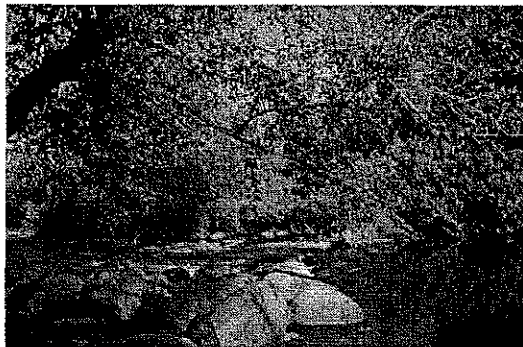
#### Protecting our future

Through careful planning and through such approaches as the Total Maximum Daily Load, we can not only address pollution today but also maintain the quality of Oregon's waterways for the future.

For more information about TMDLs, or about how you can help prevent water pollution, write the Oregon Department of Environmental Quality, Water Quality Division, 811 SW Sixth Ave., Portland, OR, 97204. You may also contact Dick Pedersen, Watershed Management Section Manager, at (503) 229-6345.

Further information on TMDLs and other programs can be found at DEQ's Web site at [www.deq.state.or.us](http://www.deq.state.or.us)

This document is available in an alternative format (e.g. large type or Braille) by calling DEQ's Office of Communications & Outreach at (503) 229-5766 or (toll-free within Oregon) 1-800-452-4011. People with hearing impairments may call DEQ's TTY line at (503) 229-6993.



*Riparian shade is an important component for maintaining cool stream temperatures.*



## MEMORANDUM

**TO:** Water Resources Commission and Environmental Quality Commission

**FROM:** Mike Llewelyn, Department of Environmental Quality, Water Quality Division Administrator, and Tom Paul, Water Resources Department, Field Services Administrator

**SUBJECT:** **Water Reuse Initiative**  
Joint Meeting of the WRC and EQC, June 6, 2002

### I. Background

Historically, the management of wastewater has been focused on treatment and disposal, i.e., maximizing the treatment and minimizing the environmental impact. However, focusing strictly on this approach may result in missed opportunities to benefit from the reuse of treated wastewater. For example, instead of trying to find the most benign discharge location for wastewater, “replumbing” infrastructure to make wastewater more broadly available for non-potable uses could be an attractive alternative to surface water discharges. Meeting the growing demands on potable water supplies could be aided if treated wastewater was reused for watering city parks, landscaped areas and golf courses. Other non-potable uses include crop irrigation, cooling water for power plants, process water for paper mills, toilet flushing, dust control, concrete mixing, and use in artificial lakes.

There are a number of concerns about wastewater reuse practices that could thwart widespread support and enthusiasm for these types of projects, such as:

- Is water reuse safe? Will the public's health be protected? What entities will have long-term oversight of such activities to ensure public safety and health?
- How would these practices affect instream flows?
- What consequences would water reuse projects have on farmland? How does using wastewater affect marketability of agricultural products?
- What are the regulatory barriers?
- What are the incentives for promoting wastewater reuse? Can wastewater reuse be cost effective?

### II. Discussion

#### DEQ's “Wastewater Liability to Asset” Initiative

The Department of Environmental Quality (DEQ) has embarked upon a “Wastewater Liability to Asset” initiative, an effort to encourage new ways to reuse wastewater. This

initiative seeks to change the perception that wastewater is strictly a “liability” and encourage the reuse of treated wastewater for beneficial uses.

The initiative is currently in the early developmental phase. An internal DEQ workgroup has been identifying advantages and disadvantages of wastewater reuse as well as opportunities and obstacles. Additionally, DEQ is communicating with a wide variety of stakeholders on this issue – including the Water Resources Department (WRD), municipalities, the Department of Human Services (DHS), agricultural interests, consultants in the field of wastewater reuse and others – to get a better understanding of the wide array of perspectives, interests and issues. When this phase is completed later this year, DEQ will be evaluating next steps for the initiative. Regardless of the results from this initial phase, DEQ is expecting that this will be a long-term strategy that will be dependant upon successful collaboration with WRD and other key stakeholders.

### Wastewater Reuse Regulatory Responsibilities

DEQ and WRD both have regulatory responsibilities relating to the authorization of wastewater reuse. While there are some differences in the regulations that govern the reuse of treated municipal wastewater (i.e., from sewage treatment plants) and treated industrial wastewater (e.g. from a food processing plant), the permitting process is much the same regardless of its source. Each project proponent must get a permit from DEQ. A project proponent may also be required to register the project or file a water right application with WRD, depending on the source of the original water used, the type of entity involved in the water reuse project, and the nature of the reuse project. Water reuse projects may also require consultation with the DHS. Regulatory requirements for water reuse projects are described in detail below.

DEQ: The reuse of municipal and industrial wastewater requires a permit from DEQ. DEQ reviews the proposal to ensure that the wastewater can be safely used for the intended use. In most cases, a certain amount of treatment is required to remove potentially harmful pollutants and disease causing organisms. DEQ also requires a comprehensive management plan, describing the source of the wastewater, treatment, quality and quantity, intended reuse (e.g. wheat crop), and any environmental controls (e.g., buffers to streams, harvest restrictions) necessary to protect human health and the environment. DEQ must approve this plan and will monitor the activity to ensure that the permittee is operating in compliance with the plan.

WRD: Water that has been used for municipal purposes may be subsequently put to another use, or “reclaimed,” without needing a new water right. However, in order to use reclaimed water, certain criteria must be met, including water quality standards set by the DEQ, a review of impacts on fish and wildlife by the Department of Fish and Wildlife, and the submission of information concerning the nature of the use of the reclaimed water to the WRD. The use of the reclaimed water must be registered with WRD if the use is not included in the municipality’s service area. In addition, the registration process provides notification to other water users if a municipality’s historic discharges of effluent have represented a significant portion of the flow in a stream. Certain industrial

and confined animal feeding operation (CAFO) effluent can also be exempt from water right permit requirements so long as the water is reused for irrigation purposes. To qualify for this exemption, the original source of water for the industrial use or CAFO must be groundwater. To date, 36 reclaimed water registrations have been filed with WRD. In no case has a water right holder claimed injury to a water right caused by changes in streamflows due to reduced discharge associated with reclaimed water use.

DHS: For projects involving the reuse of “reclaimed” water, i.e., treated effluent from a sewage treatment plant, the project proponent must consult with DHS to ensure that public health concerns are adequately addressed.

### **III. Conclusion**

This initiative seeks to increase the use of treated wastewater for beneficial uses. Reuse, when managed through appropriate environmental controls with protection for existing water right holders, can be a valuable component of a holistic water resource management program. DEQ and WRD are working together to gain a better understanding of the barriers and opportunities to help chart the course for the future of this initiative.

Mike Llewelyn, Administrator  
Water Quality Division  
Department of Environmental Quality  
(505) 229-5324

Tom Paul, Administrator  
Field Services Division  
Water Resources Department  
(503) 378-8455 ext. 281

## MEMORANDUM

**TO:** Water Resources Commission and Environmental Quality Commission

**FROM:** Paul R. Cleary, Water Resources Department, Director, and  
Stephanie Hallock, Department of Environmental Quality, Director

**SUBJECT: Challenges and Opportunities**  
Joint Meeting of the WRC and EQC, June 6, 2002

### I. Issue Statement

There are a number of areas where the responsibilities of the Department of Environmental Quality (DEQ) and the Water Resources Department (WRD) intersect. This staff report highlights ongoing issues that demonstrate this intersection. Meeting these challenges and others will require continued coordination and cooperation between DEQ and WRD.

### II. Examples of Challenges

#### A. Cross compliance related to siting wells and permitting on-site sewage disposal systems

WRD has administrative rules for siting wells that prescribe setbacks from septic tanks and drain fields. Similarly, DEQ has rules for the siting of septic tanks and drain fields that prescribe setbacks from wells. Under WRD's rules, depending upon geologic and well construction circumstances, WRD can issue a special standard that allows a well driller to encroach upon the prescribed setbacks, e.g. locate a well closer to a septic tank or drain field than required. While the special standard provides compliance for the well driller with WRD requirements, it may put the landowner in violation of a DEQ permit regarding the proximity of a septic tank or drain field from a well. In these cases, the landowner can obtain an amended permit from DEQ, but statutes require that a public hearing be held, which means that the process could take several months and also requires a sizable application fee. Additionally, WRD's well construction rules do not require the identification of permitted, but yet to be constructed, on-site sewage disposal systems or prescribe setbacks from such systems. Therefore, the construction of a well could invalidate an existing on-site permit and potentially preclude the development of the parcel. WRD and DEQ need to continue working toward a reciprocal process for siting of wells and on-site disposal systems.

#### B. Permitting Aquatic Herbicide Use in Irrigation Systems

In March 2001, the Ninth Circuit U.S. Court of Appeals ruled that aquatic herbicide application by the Talent Irrigation District requires a National Pollutant Discharge

Elimination System (NPDES) permit (*Headwaters, Inc. v Talent Irrigation District*). In response to a request from Oregon Water Resources Congress (OWRC), DEQ issued a Mutual Agreement and Order (MAO) in lieu of an NPDES permit for application of the aquatic herbicides acrolein and xylene in irrigation systems for the 2001 irrigation season. An MAO was necessary because there was insufficient time to issue a permit before the irrigation season. A key difference between an MAO and a permit is that an MAO does not provide the same legal "shield" that a permittee has when operating in compliance with an NPDES permit.

On March 29, 2002, EPA issued guidance on the Court's decision. EPA's guidance stated that the application of an aquatic herbicide consistent with the federally-approved FIFRA label instructions to ensure the passage of irrigation return flow meets a legal exemption from NPDES permitting, consistent with Congressional intent. However, there is some question as to the applicability of the irrigation return flow exemption to supply systems for irrigation water. Furthermore, this guidance does not negate the Ninth Circuit Court decision.

As a result of this ambiguity, OWRC requested that the DEQ expedite the issuance of individual NPDES permits to 10 irrigation districts (Klamath ID, North Unit ID, Ochoco ID, Vale ID, Owyhee ID, Owyhee Ditch Company, Hermiston ID, Stanfield ID, West Extension ID, and Westland ID). The DEQ entered into a contract agreement ("receipts authority") with OWRC to expedite this work and plans to public notice the proposed permits starting in mid-May. In addition, the DEQ is preparing an MAO in lieu of an NPDES permit for the 2002 irrigation season for irrigation districts that are unable to participate in this contract due to resource constraints.

In addition to aquatic herbicide application activities in irrigation systems, the Ninth Circuit Court decision implies that other aquatic pesticide application activities may need NPDES permits. These include such activities as mosquito control, weed control in lakes and ponds, and nuisance fish kill activities. EPA's March guidance did not address these activities, but other states such as California and Washington have issued NPDES general permits to cover these types of aquatic pesticide applications. To address these activities, the DEQ is beginning its permit development process. General permits to cover these activities would likely be in place by early 2003, which will allow the DEQ to consider any additional guidance that EPA may provide in 2002 on the Ninth Circuit Court decision.

### C. Hydroelectric Application Review Teams

Hydroelectric Application Review Teams (HARTs) were established by HB 2119 in 1995. Through the coordinated effort under the HART process, the state produces a "unified state position" on the re-authorization of hydroelectric licenses. The HART process was also designed as a forum to resolve conflicts between state agency positions on licensing and to provide utilities and citizens with one point of contact. The state position produced by the HART process may include a WRD water rights certificate, a DEQ Clean Water Act Section 401 water quality certificate, and Oregon Department of

Fish and Wildlife "10j" recommendations. Other agencies such as Oregon Department of Geology and Mineral Industries, Oregon State Marine Board, Oregon Parks and Recreation Department, and the State Historic Preservation Offices may also have input to the unified position.

#### D. Aquifer Recharge and Aquifer Storage and Recovery

Groundwater storage projects help supply water when the need is greatest by using water stored during low demand periods. There are two types of groundwater storage projects, aquifer storage and recovery (ASR) and artificial recharge (AR). Groundwater storage for ASR occurs by injection of water down a well while water for AR can either seep into the aquifer from the land surface or be injected down a well, pit, or shaft. Both types of projects are subject to water quality requirements. Specifically, aquifer recharge water must not degrade groundwater quality while water for ASR must meet drinking water standards. Artificial replenishment of underground reservoirs can provide a sustainable resource with minimal environmental impacts. The challenge is for WRD and DEQ to fully coordinate on these projects to ensure that Oregon's water resources are protected.

#### E. EPA Draft Temperature Guidance

In October 2001, EPA released its Draft Guidance for Developing Water Quality Temperature Criteria for public comment. This guidance is the product of over two years of discussions between EPA, NMFS, USFWS, Oregon, Washington, and Idaho, and several tribal representatives. The purpose of this initiative is to identify a common approach to temperature that can be used throughout the Pacific Northwest. Once final, DEQ will have one year to decide whether and how to incorporate the guidance into Oregon's water quality criteria.

The public comment period ended on February 22, 2002. DEQ worked with other state agencies to develop and submit a single set of comments. In general, the state supported the initiative and many of its concepts, but stopped short of endorsing much of the recommended methodology and concept application. Parts of the draft methodology were scientifically untested, would be very expensive and would produce uncertain results. EPA received numerous other comments, expressing concerns about potential impacts to private forest lands, recommending various improvements to the process and guidance itself, and suggesting EPA look to Oregon's approach to simplify their guidance.

As a result of the comments received, EPA is currently rethinking their guidance. The final guidance, expected by the end of 2002, will likely place greater emphasis on the biological needs of salmonids and less on the thermal potential of rivers and streams. Similarly, the final guidance will describe implementation methods in less detail than the original draft guidance. A redraft of the guidance and an additional opportunity for public comment is expected in late summer or fall.



#### F. Willamette Basin Reservoir System


The federal storage projects in the Willamette Basin operated by the U.S. Army Corps of Engineers provide multiple benefits for the Basin. Historically, flood control, recreation, power, irrigation and water quality flow augmentation were the operational goals for the projects. Recently, spring flow targets at Salem from April through June have been incorporated into the operation to promote fish life. After June, the Corps operates the projects to meet flow targets at Albany and Salem for water quality purposes. Under low water conditions, it may be difficult to meet the multiple goals for the projects. This was a well-publicized issue during the 2001 drought due to low water levels in Detroit Lake reservoir. Last year it was not possible to achieve summer flow targets. State agencies, including WRD, DEQ, Oregon Parks and Recreation Department, Oregon Department of Fish and Wildlife, and Oregon Department of Agriculture, negotiated with the Corps to reach agreement on a flow regime that considered multiple water use needs, but some drought impacts are unavoidable.

#### G. Underground Injection Systems


The construction, maintenance, and abandonment of wells requires compliance with well construction standards administered by the Water Resources Department. However, certain injection systems such as sewage drain holes and subsurface fluid distribution systems are not regulated by the Water Resources Department. In June 2001, WRD and DEQ signed a Memorandum of Agreement (MOA) regarding injection holes and how they are addressed. Under the MOA, the two agencies will coordinate activities as much as possible to ensure that these types of borings are abandoned in a manner that is protective of the resource.

### **III. Discussion**


As these examples and others (e.g. Town of Bonanza, Deschutes Basin groundwater, Klamath TMDLs, etc.) demonstrate, the intersection in water resource authorities often coincides with inherently complex issues. Addressing these issues will be an evolving process that will require close coordination, flexibility, and creativity from DEQ and WRD.


**DEQ**  
State of Oregon  
Department of  
Environmental  
Quality

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**WRD**  
STATE OF OREGON  
WATER RESOURCES DEPARTMENT

Discussion: TMDLs and Stream Flow



**DEQ**  
State of Oregon  
Department of  
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**WRD**  
STATE OF OREGON  
WATER RESOURCES DEPARTMENT

Discussion: TMDLs and Stream Flow

*Summary of Presentation*

- Describe "TMDL" generally (Dick Pedersen)
- Streamflow Restoration Tools (Tom Paul)
- The Umatilla Basin TMDL (Don Butcher)
- Umatilla Basin TMDL-related flow Restoration (Mike Ladd)
- Discussion

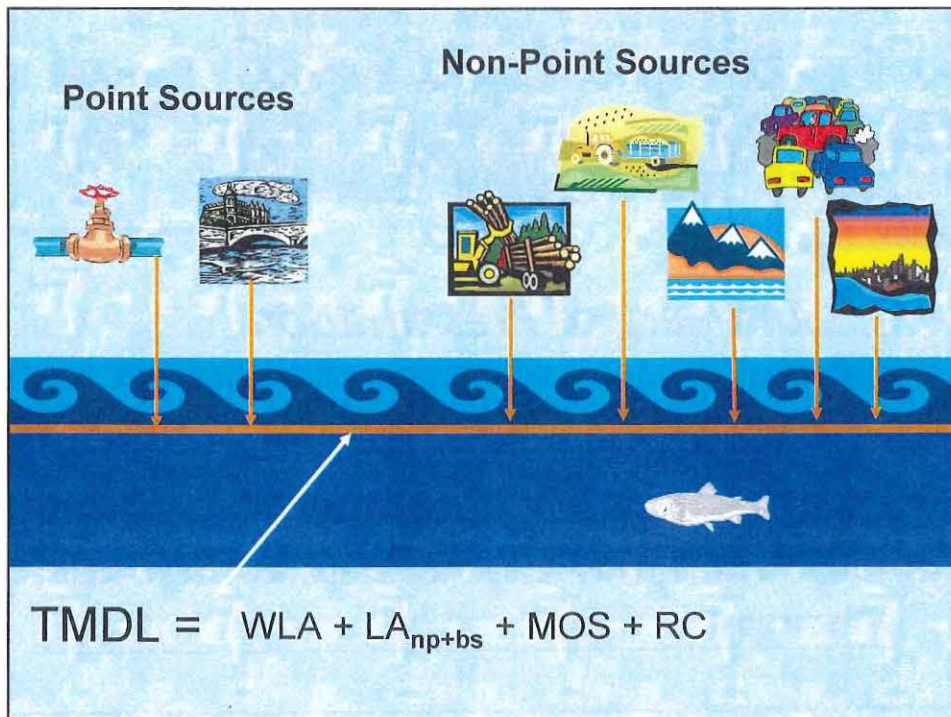


## Joint Commission Meeting Water Resources & Environmental Quality



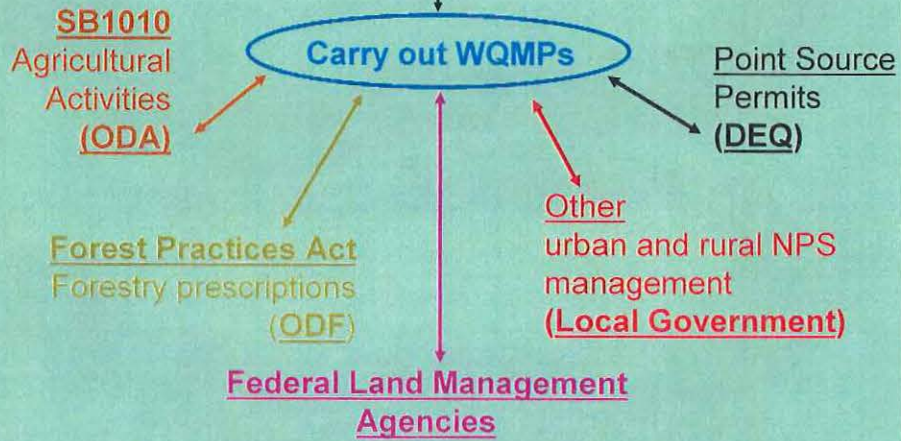
### TMDL Process

1. Protect sensitive **Beneficial Uses** by developing **Water Quality Standards**.
2. Classify water bodies that do not meet **Water Quality Standards** as **303(d) Water Quality Limited**.
3. Determine **TMDLs** for **303(d) Water Quality Limited** water bodies.
4. Implement **TMDLs** through NPDES Permits and **Water Quality Management Plans**



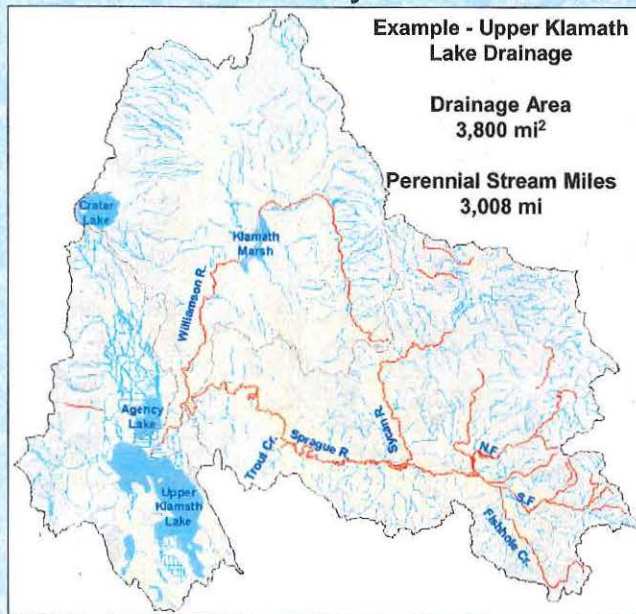
# TMDL Roles and Responsibilities

DEQ calculates TMDLs, sets allocations to reach water quality compliance



## What sets us apart?

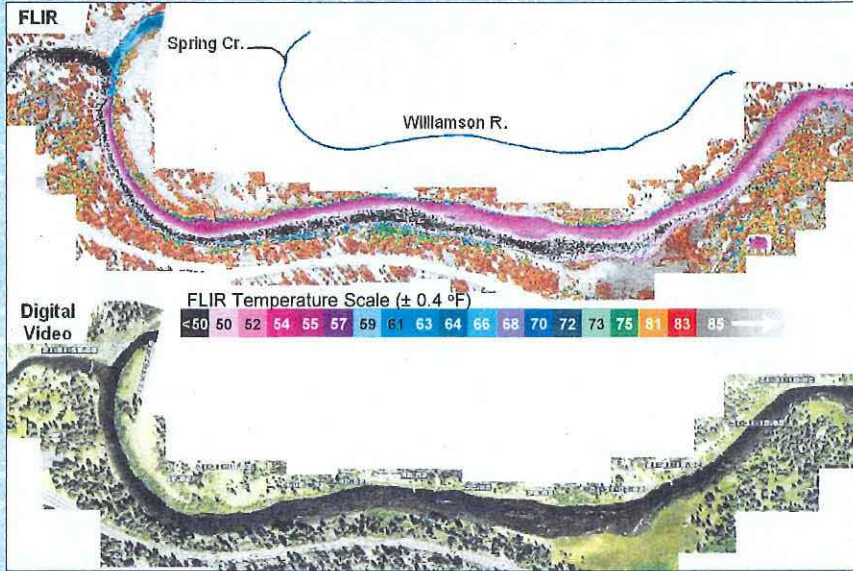
Analysis is Scaled to Large Drainages



Oregon DEQ TMDL Program

## What sets us apart?

Analytical Methods Include GIS and Remotely Sensed Data

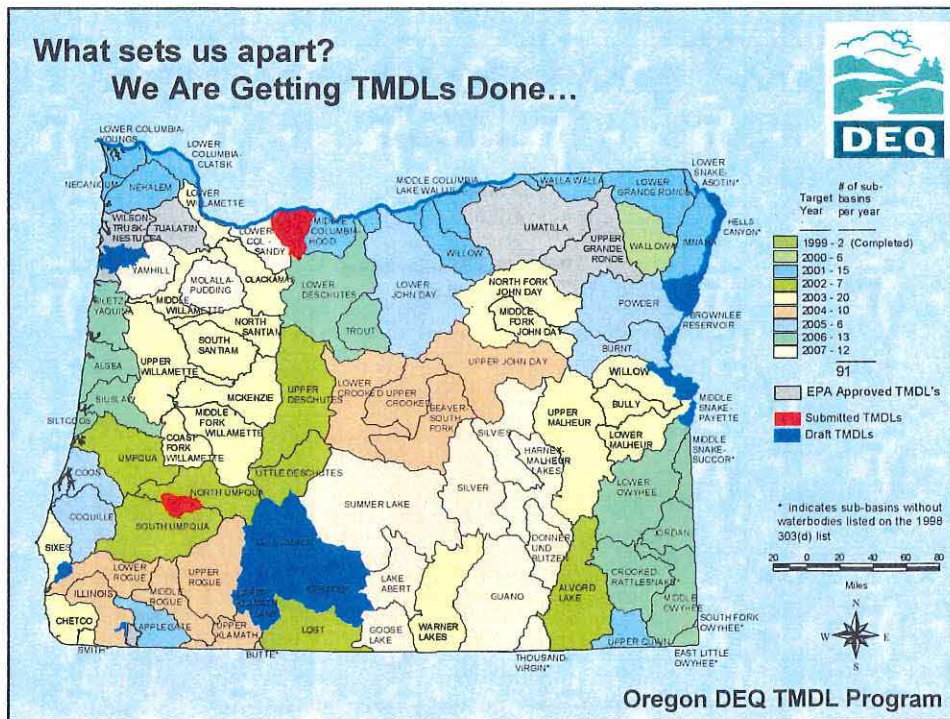


Example – Williamson River

Oregon DEQ TMDL Program

## What sets us apart?

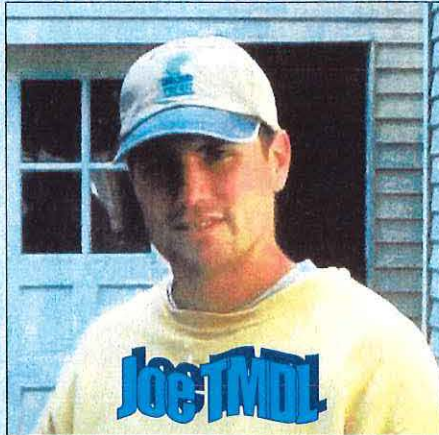
We Are Getting TMDLs Done...



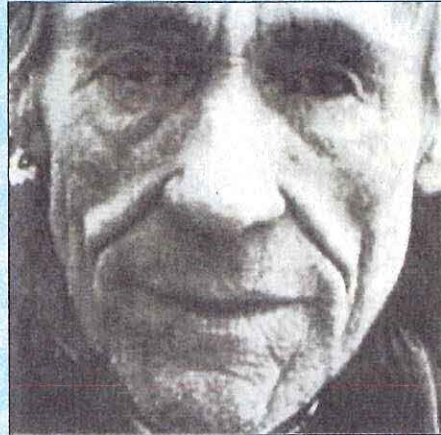
**What sets us apart?**

**Seasoned Staff**

**Before a TMDL**



**After a TMDL**



Oregon DEQ TMDL Program

**What sets us apart?**

**Documentation is Useful and Technically Honest**

- Sufficient Public Comment Periods
- Sincere Response to Comments
- Access to Documents (Hard Copy, CD, Web)

<http://www.deq.state.or.us/wq/TMDLs/TMDLs.htm>



Oregon DEQ TMDL Program

Upper Klamath Lake Drainage  
Total Maximum Daily Load  
(TMDL)



Upper Klamath Lake

Presented by

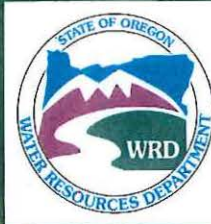


May 2002



## Joint Commission Meeting

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### TMDLs and Flow

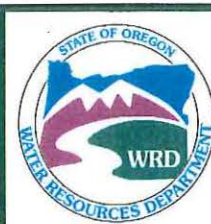
#### How do TMDLs, Stream Flow, Organizations and Communities Mix?

- TMDLs account for water quantity
- Organizations other than WRD and DEQ are often the drivers:  
(W/S Councils, Irrigation Districts, Federal Agencies, Tribes, Cities)
- WRD and DEQ provide permits, technical assistance, incentives



## Joint Commission Meeting

Water Resources &  
Environmental Quality



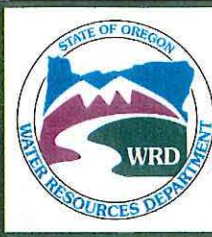
### Streamflow Restoration Tools

*Tom Paul*

- Instream Transfers and Leases
- Allocation of Conserved Water
- Split Season Use Lease
- Exchanges/Source Switching
- Substituting Groundwater for Surface Water
- Voluntary Agreement Among Water Users
- Water Quality Trading



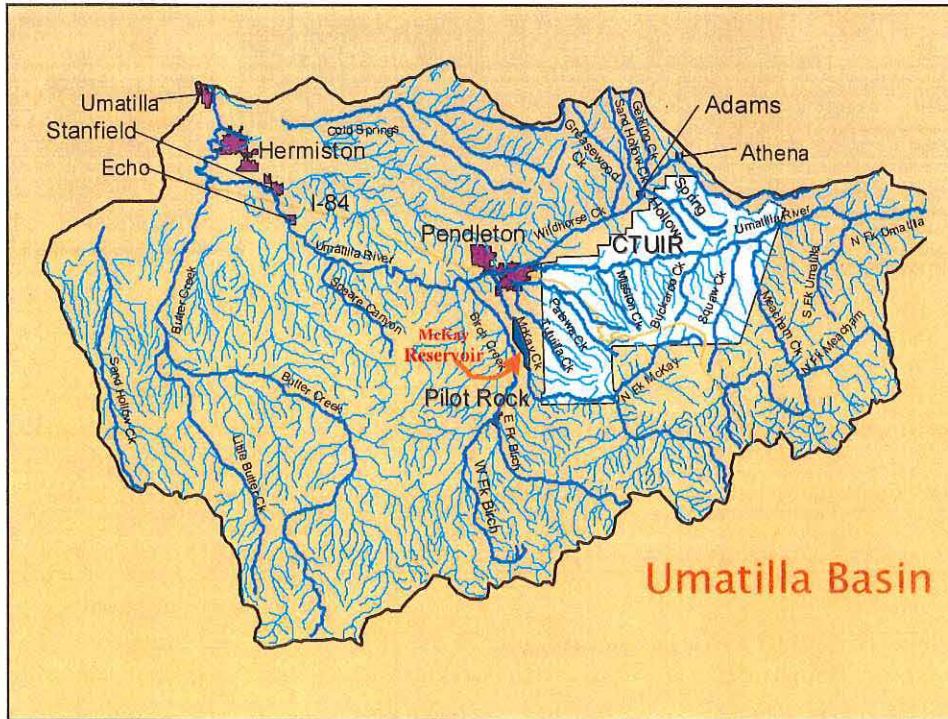
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Environmental Quality



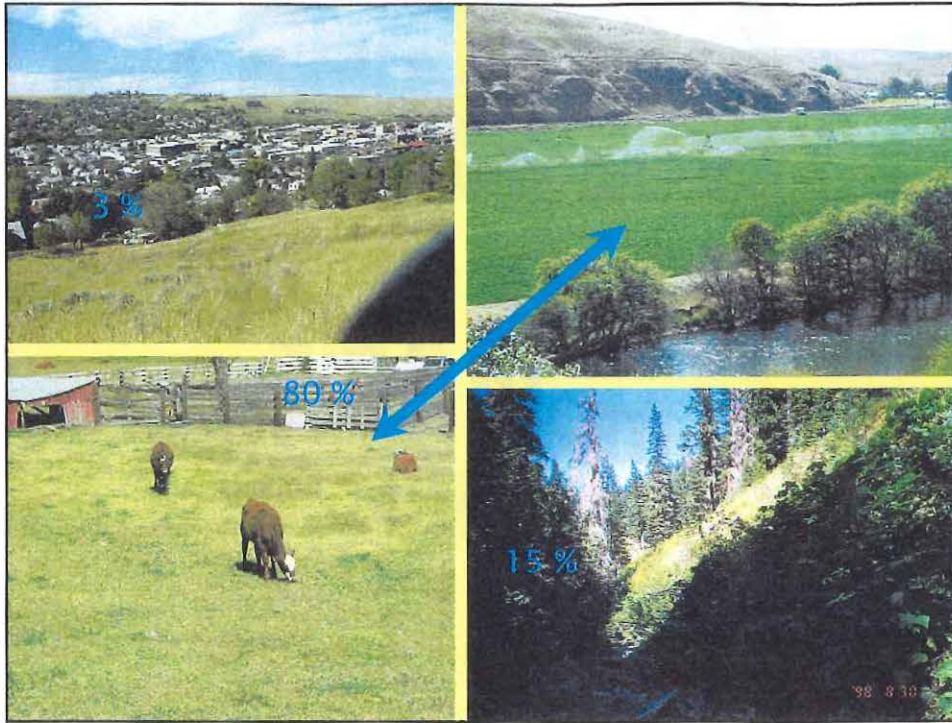
TMDLs and Flow

# Example TMDL: The Umatilla Basin

Don Butcher (DEQ)









State of Oregon  
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**Umatilla Basin TMDL**



STATE OF OREGON  
WATER RESOURCES DEPARTMENT

**Existing 303(d) Listings:**

- Temperature
- Sediment, Turbidity
- pH, aquatic weeds and algae
- Turbidity
- Bacteria
- Ammonia
- Nitrate
- Habitat Modification
- Flow Modification

**Most Sensitive  
Beneficial Uses:**

- Salmon and Trout
- Swimming
- Drinking Water Supply

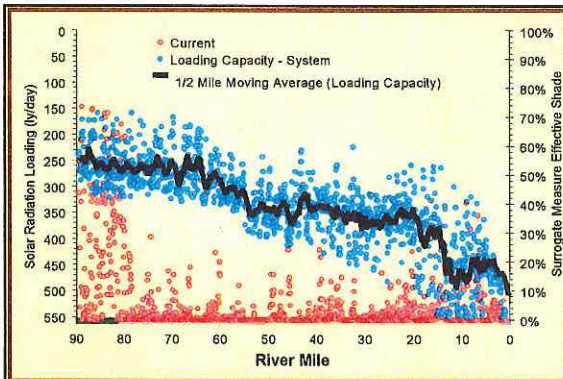


## Joint Commission Meeting Water Resources & Environmental Quality



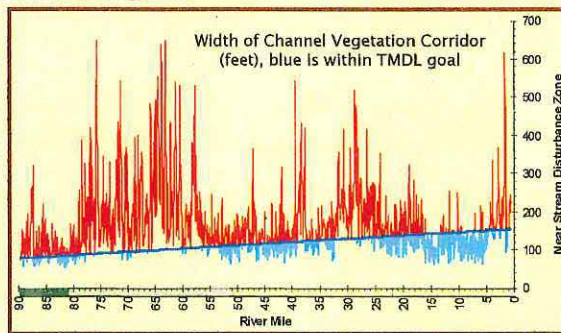
### Umatilla Basin TMDL Process Highlights

- Community Leadership
- Emphasis on Public Involvement  
(Watershed Council, Tribes, volunteers, extensive outreach)
- Emphasis on inter-agency collaboration  
(5-years of basin assessment and strategy forming: DEQ, WRD, ODFW, ODA, Cities, County, ODF, USFS, USBR, CTUIR, ARS, OSU, SWCD, Watershed Council)
- Technically rigorous
- Mostly Nonpoint Sources of Pollutants



Where feasible and attainable, instream flows should be maintained or increased during the critical season (at a minimum, June to September) by limiting new water withdrawals, improved flow management, and/or flow augmentation.

### Umatilla Basin Temperature TMDL Allocations





## Joint Commission Meeting Water Resources & Environmental Quality



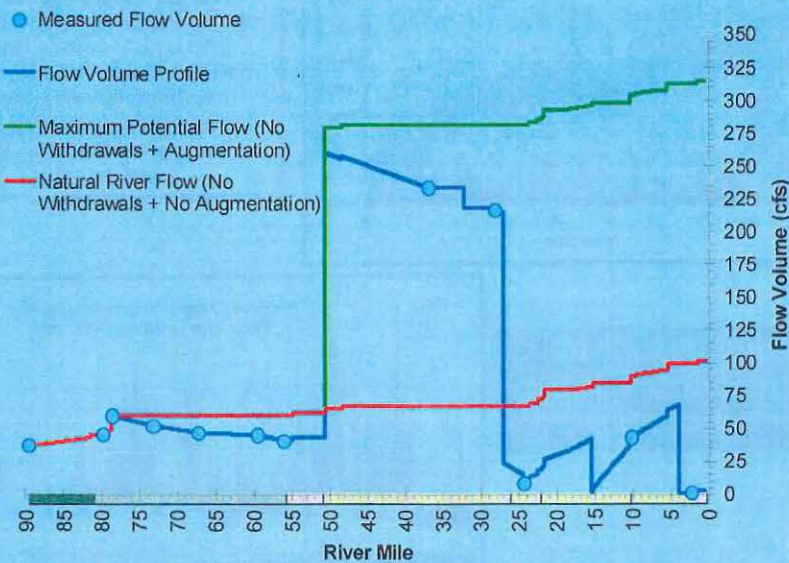
### Umatilla Basin Temperature TMDL

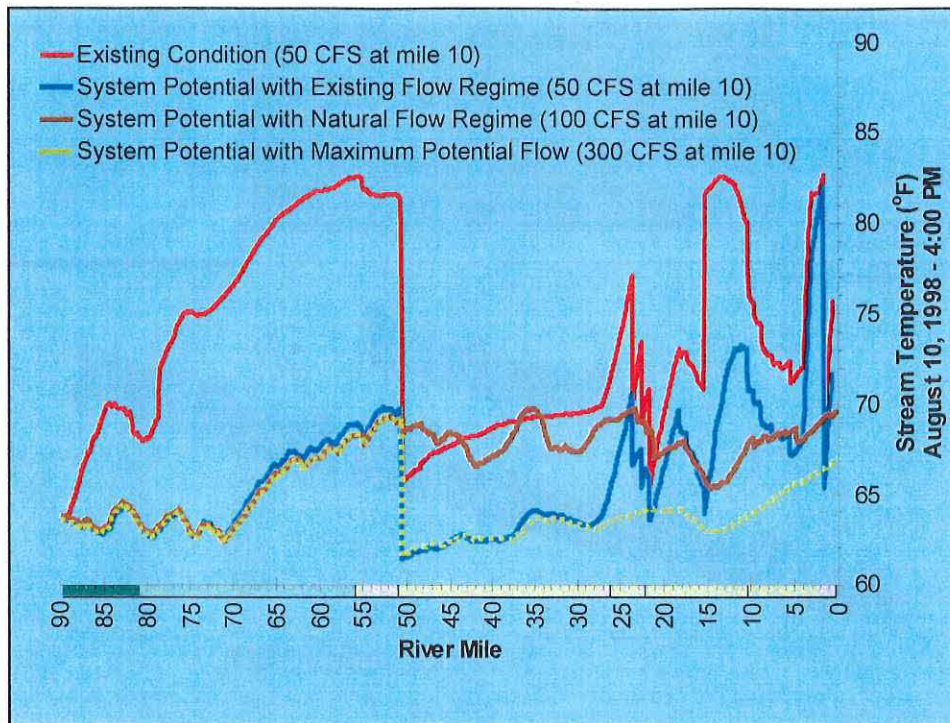
- The TMDL brings a Basin from a state-wide temperature target to a Basin-specific estimation of thermal potential.
- The Umatilla Basin can achieve this potential if:
  1. Stream-side shade increases (riparian vegetation)
  2. Channels narrow (riparian vegetation)
  3. Flow increases

Shade and Channel width are TMDL allocations.

Flow maintenance and restoration results from existing regulation and collaborative, initiative based approaches.

#### Temperature was calculated for these three flow scenarios







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**TMDLs and Stream Flow**



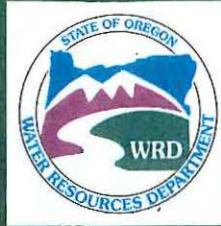
STATE OF OREGON  
WRD  
WATER RESOURCES DEPARTMENT

### Umatilla Basin TMDL Water Quantity Management Plan

- Wetland development
- Basin Project Phase III
- Investigating reservoir storage possibilities
- Purchasing/leasing water rights
- WRD conserved water program
- Municipal and Ag. Water Mgmt and Conservation Plans
- Existing water law and regulation
- Upgrading irrigation systems
- Water inventory study



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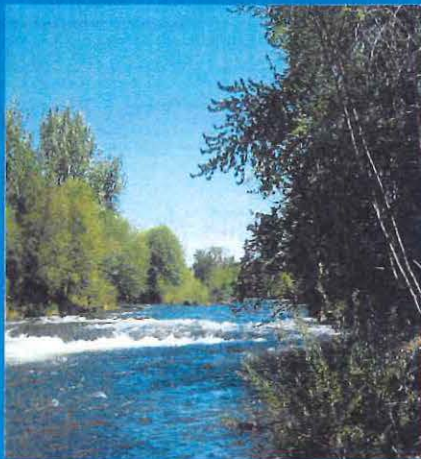
TMDLs and Stream Flow

# Examples of River Flow Restoration that Benefit TMDL

Mike Ladd (WRD)

## Water Management

- Umatilla River and McKay Creek



## Flow Augmentation

- Umatilla Basin Project
- Echo Meadows Project
- City Of Pendleton

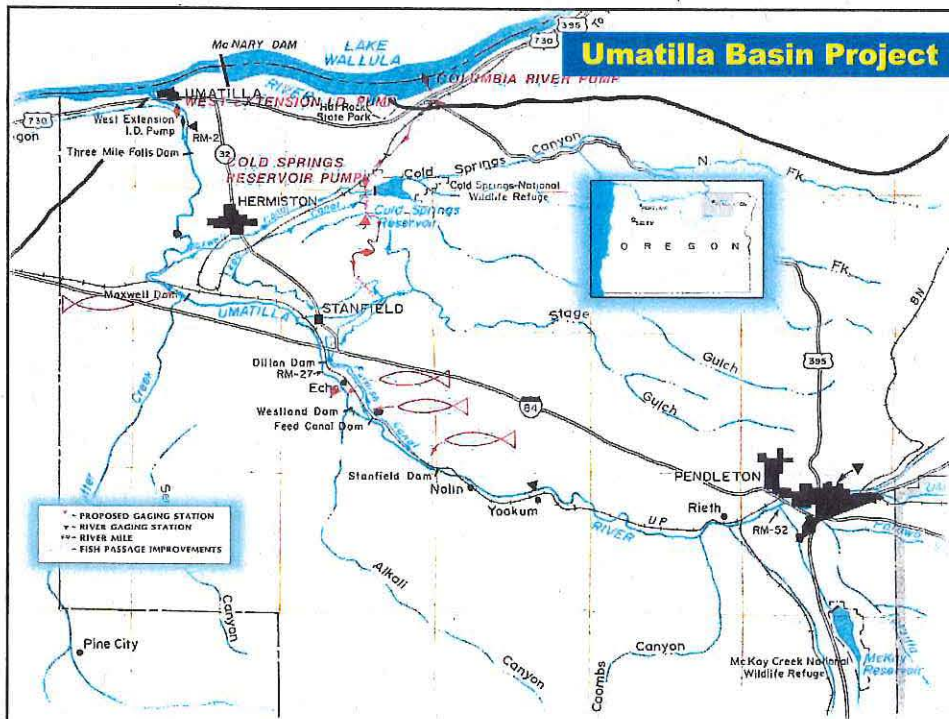




## WATER MANAGEMENT

### UMATILLA RIVER

- McKay and Umatilla Water Management Plan 1991
- Measuring devices on diversions
  - 82 Umatilla River
  - 29 McKay Creek
- 20 Gaging Stations for monitoring and regulation
- 1 Gage for additional water quality monitoring



## Flow Augmentation



### Umatilla Basin Project

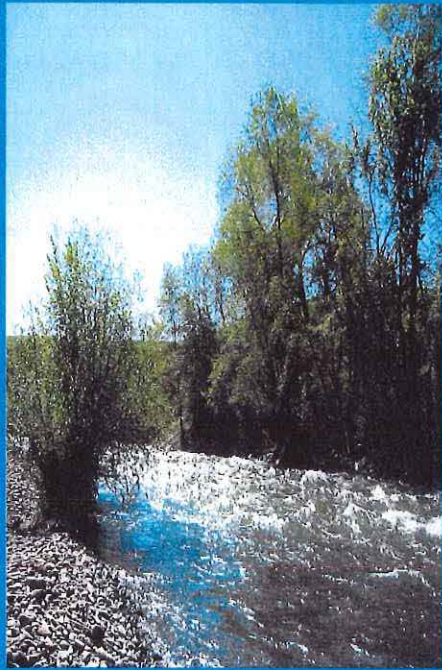
- |      |   |
|------|---|
| 2001 | 25,000 Acre Feet From McKay Reservoir<br>60,000 Acre Feet Umatilla River Natural Flow |
| 2000 | 26,000 Acre Feet From McKay Reservoir<br>41,000 Acre Feet Umatilla River Natural Flow |

## Flow Augmentation

### Echo Meadows Project

- Recharge Demonstration Project
- Divert High Winter Flows From the Umatilla River
- Flood Lands in the Echo Meadows Area
- Recharge Shallow Alluvial Aquifer to Provide Cool Discharge to the River
- Water Diverted and Applied to Land in February 2002
- More Demonstration Needed to Analyze Results

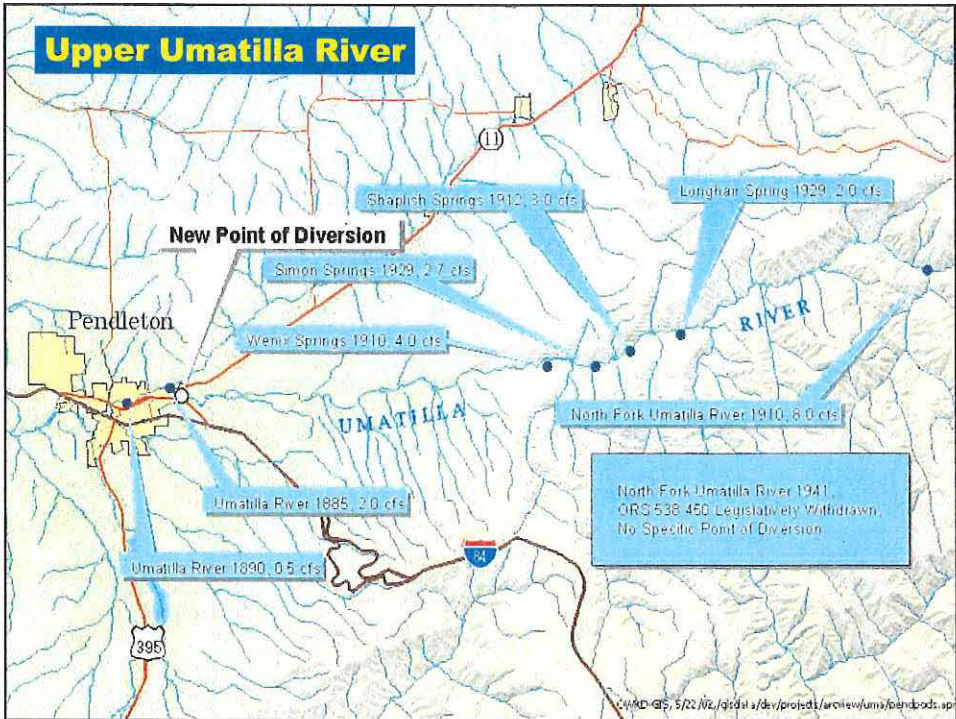




## Flow Augmentation

### City Of Pendleton

- Combine Multiple Water Rights and Diversions to One Common Point
- Up To 33 Miles Will Have Enhanced River Flows
- Regulation To Priority Date







*Joint Commission Meeting*  
Water Resources &  
Environmental Quality

TMDLs and Flow



# Discussion

Minutes are not final until approved by the Commission.

## **Environmental Quality Commission Minutes of the Three Hundredth and Second Meeting**

**April 23-25, 2002  
Regular Meeting<sup>1</sup>**

The following Environmental Quality Commission (EQC) members were present for the regular meeting, held at The Comfort Inn, located at 504 Highway 20 in Hines, Oregon.

Melinda Eden, Chair  
Tony Van Vliet, Vice Chair  
Mark Reeve, Member  
Harvey Bennett, Member  
Deirdre Malarkey, Member

Also present were Larry Knudsen, Oregon Department of Justice (DOJ), Stephanie Hallock, Department of Environmental Quality (DEQ) Director, and DEQ staff.

### **Tuesday, April 23, 2002**

Vice Chair Van Vliet called the meeting to order at approximately 3:00 p.m.<sup>2</sup> Agenda items were taken in the following order.

#### **A. Information Item: Overview of the DEQ Land Quality Division**

David Rozell, Acting DEQ Land Quality Division Administrator, presented an overview of the major DEQ programs and initiatives for solid and hazardous waste management, environmental clean-up, and cross-program activities that address air, water and land quality issues. Commissioners discussed program activities, challenges and budget needs with Mr. Rozell and Director Hallock.

#### **B. Information Item: DEQ Information Management Assessment Project Update**

Helen Lottridge, DEQ Management Services Division Administrator working on special assignment, gave the Commission an update on DEQ's work to find ways to make environmental information more accessible to Oregonians and make the best use of the technology and information resources available to the agency. Ms. Lottridge described progress since January 2002 to evaluate information management systems and develop recommendations for system improvements by September 2002.

#### **I. Temporary Rule Adoption: Authorized Representatives for Parties in Contested Case Hearings**

Larry Knudsen, Assistant Attorney General, proposed temporary adoption of an agency rule that was inadvertently repealed in July 2000. The rule, Oregon Administrative Rule 340-011-0106, allowed

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<sup>1</sup> Staff reports and written material submitted at the meeting are made part of the record and available from DEQ, Office of the Director, 811 SW Sixth Avenue, Portland, Oregon 97204; phone: (503) 229-5990.

<sup>2</sup> Chair Eden arrived shortly after the meeting was called to order.

certain entities that appear before DEQ in contested case hearings to be represented by an authorized representative. Without the rule, these entities would need to be represented by an attorney. Mr. Knudsen explained that once adopted, the temporary rule would be effective for a maximum of 180 days. Commissioners discussed and concluded the need for the rule. Commissioner Bennett moved the Commission adopt the proposed temporary rule. Commissioner Malarkey seconded the motion and it passed with five "yes" votes.

Chair Eden recessed the meeting at approximately 4:30 p.m. At 6:30 p.m., the Commission joined DEQ staff for dinner at The Apple Peddler, located at 540 Highway 20 North, in Hines, to discuss agency activities in Eastern Oregon.

### **Wednesday, April 24, 2002**

The Commission toured the Malheur Wildlife Refuge and Frenchglen area with Harney County Judge Steve Grasty, local stakeholders and DEQ staff to discuss ecological conditions and various environmental issues. At 6:00 p.m., the Commission hosted a dinner with local officials and citizens to hear and discuss environmental issues, opportunities and challenges. During the dinner, Commissioners expressed their appreciation to attendees for their interest and involvement in protecting environmental quality. The dinner was held at The Pine Room, located at 543 West Monroe, in Burns.

### **Thursday, April 25, 2002**

The Commission held an executive session at 8:00 a.m., to consult with counsel concerning legal rights and duties with regard to current and potential litigation involving the Department. Executive session was held pursuant to ORS 192.660(1)(h).

At approximately 8:30 a.m., Chair Eden called the regular meeting to order and agenda items were taken in the following order.

#### **C. Approval of Minutes**

Chair Eden and Commissioner Reeve amended draft minutes of the March 7-8, 2002, meeting. On page 3, Item E, "starting-up" was changed to "starting" in the first sentence. On page 4, Item G, "early-on" was changed to "early" in the third sentence. Commissioner Van Vliet moved the Commission approve draft minutes with corrections. Commissioner Malarkey seconded the motion and it passed with five "yes" votes.

#### **D. Director's Dialogue**

Commissioners and Director Hallock discussed current events and issues involving the Department and state. In addition, Mike Llewelyn, DEQ Water Quality Division Administrator, and Dick Nichols, DEQ Eastern Region Manager, described the status of the Snake River-Hells Canyon Total Maximum Daily Load (TMDL) and answered questions from the Commission.

#### **E. Information Item: Status Update on DEQ Approval for the Start of Umatilla Chemical Agent Disposal Facility Surrogate Operations**

Wayne Thomas, DEQ Administrator of the Umatilla Chemical Demilitarization Program, gave the Commission an update on the status of activities that must be completed before DEQ approves the start of Umatilla Chemical Agent Disposal Facility (UMCDF) surrogate operations. In March 2002, the Commission modified the hazardous waste permit for the UMCDF to require DEQ approval for starting surrogate operations (scheduled for May 2002) and Commission approval for starting chemical agent operations (scheduled for February 2003). Commissioners discussed progress and upcoming work at UMCDF with Mr. Thomas and Director Hallock.

#### **F. Rule Adoption: Mercury Thermostat Labeling Rules**

David Rozell, Acting DEQ Land Quality Division Administrator, proposed new rules for labeling mercury-containing thermostats to help homeowners and building contractors dispose of thermostats correctly. Mr. Rozell explained that the rules were needed to implement a law passed by the 2001 Legislature intended to reduce the release of mercury, a toxic chemical, to the environment. Mr. Rozell described plans to make the rules effective this summer, working with thermostat manufacturers that produce thermostats sold in Oregon, as well as stakeholders involved in reducing mercury in the environment. Commissioners discussed the new rules with Mr. Rozell, noting that the Legislature made the Department of Justice, rather than DEQ, responsible for enforcing the requirement. Commissioner Reeve moved the Commission adopt the rule. Commissioner Malarkey seconded the motion and it passed with five "yes" votes.

#### **G. Rule Adoption: Amendments to the Oregon Visibility Protection Plan**

Brian Finneran, DEQ Air Quality specialist, proposed improvements to the Oregon Visibility Protection Plan, which was adopted in 1986 to protect certain areas of the state from air pollution. The plan covers Crater Lake National Park and eleven national wilderness areas in Oregon. As periodically required by law, DEQ reviewed the plan in consultation with a stakeholder advisory committee to develop recommendations and plan improvements. Mr. Finneran summarized changes to expand Oregon's visibility monitoring network, strengthen smoke management coordination, increase the use of non-burning alternatives for agriculture and forestry, and improve tracking of burning and fire emissions. The plan is one part of Oregon's State Implementation Plan (SIP) for protecting air quality under the federal Clean Air Act. Commissioners discussed the proposed changes and gave suggestions for working with stakeholders and other agencies. Commissioner Van Vliet moved the Commission adopted proposed amendments to the plan as a revision to the SIP. Commissioner Bennett seconded the motion and it passed with five "yes" votes.

#### **H. Information Item: Updating the Performance Partnership Agreement between DEQ and the Environmental Protection Agency**

Director Hallock introduced Marianne Fitzgerald, DEQ Cross Program Coordinator, to report on negotiations with the federal Environmental Protection Agency (EPA) to update the Performance Partnership Agreement. Ms. Fitzgerald explained that the agreement describes how DEQ and EPA carry out joint environmental responsibilities for air quality, water quality and hazardous waste, including work priorities and program commitments. Commissioners gave suggestions for soliciting input from the Tribes, other stakeholders and the public in updating the agreement, which will be finalized in June 2002.

#### **Public Forum**

At approximately 11:30 a.m., Chair Eden asked whether anyone wished to provide public comment. David Evans, representing the Burns Paiute Tribe, expressed appreciation to the Commission for meeting in Burns, and commented on the good working relationship between DEQ staff and the Burns Paiute Tribe.

#### **J. Commissioners' Reports**

Commissioner Malarkey reported on her recent participation in a watershed management workgroup, and provided the Commission information on the "Waste to Work" Partnership program, which helps business, government and non-profit agencies develop recycling and waste disposal alternatives.

Commissioner Bennett commented on the high value and quality of the Hines-Burns meeting, noting exceptional dialogue and interaction with local officials and stakeholders.

Chair Eden adjourned the meeting at approximately 12:30 p.m.

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**Date:** May 21, 2002  
**To:** Environmental Quality Commission  
**From:** Stephanie Hallock, Director *S. Hallock*  
**Subject:** Agenda Item B, Action Item: Tax Credit Application Consideration  
June 7, 2002 EQC Meeting

**Proposed Action** Commission decision on DEQ's analysis and recommendations on Pollution Control Facilities Tax Credit applications. Attachment A summarizes all applications.

**Key Issues** There are no key issues.

**EQC Action Alternatives** Any application may be postponed to a future meeting if the Commission:

- Requires the Department or the applicant to provide additional information; or
- Makes a determination different from the Department's recommendation and that determination may have an adverse effect on the applicant.

**Department Recommendation** The Department recommends the Commission **approve** certification of the facilities represented in Attachment B.


**Attachments** A. Summary & Recommendations  
B. Approvals

**Available Upon Request** 1. ORS 468.150 to 468.190 & OAR 340-016-0005 to 340-016-0080

Approved:

Section:

Division:



Report Prepared By: Maggie Vandehey  
Phone: 503-229-6878

**Attachment A**  
**Summary**  
**&**  
**Recommendations**

## Summary: Recommended Action

App #	Applicant	Claimed Cost	Certified Cost	Difference	Percent Allocable	Maximum Tax Credit	GF Liability	Type	Recommended Action	EQC Action
5427	LSI Logic Corporation	14,614,345	11,213,435	-3,400,910	100%	50%	5,606,718	Water	Approve	
5428	LSI Logic Corporation	7,166,846	5,501,259	-1,665,587	100%	50%	2,750,630	Air	Approve	
5596	Dravon Medical Inc.	253,512	217,111	-36,401	100%	50%	108,556	Air	Approve	
5670	A-DEC Inc.	197,663	197,663	0	100%	50%	98,832	Water	Approve	
6037	Portland General Electric	59,253	59,253	0	100%	50%	29,627	Water	Approve	
6057	Zeigler Farms, LLC	39,300	39,300	0	100%	35%	13,755	Field Burning	Approve	
6065	Scott McConnachie	6,200	6,200	0	100%	35%	2,170	Wood Chipper	Approve	
6070	Donn Callahan	4,800	4,800	0	100%	35%	1,680	Wood Chipper	Approve	
6076	James C. Embree	1,499	1,499	0	100%	35%	525	Wood Chipper	Approve	
6077	Leonard J. George	630	630	0	100%	35%	221	Wood Chipper	Approve	
6081	Bassett and Sons, Inc.	9,675	9,675	0	100%	35%	3,386	Wood Chipper	Approve	
6087	David E. Chambers	19,500	19,500	0	100%	35%	6,825	Wood Chipper	Approve	
6093	Robert D. Cunningham	2,350	2,350	0	100%	35%	823	Wood Chipper	Approve	
6107	Richard McCollum	1,599	1,599	0	100%	35%	560	Wood Chipper	Approve	
6111	Robert R. Shumaker	2,925	2,925	0	100%	35%	1,024	Wood Chipper	Approve	
6114	Holce Logging Co., Inc.	2,359	2,359	0	100%	35%	826	Wood Chipper	Approve	
6117	Blue Darter Farms	2,150	2,150	0	100%	35%	753	Wood Chipper	Approve	
6118	Bruce C. Jones	2,200	2,200	0	100%	35%	770	Wood Chipper	Approve	
6120	Gregory Dale Hess	2,210	2,210	0	100%	35%	774	Wood Chipper	Approve	
6125	Robert F. Bradford	7,495	7,495	0	100%	35%	2,623	Wood Chipper	Approve	
6128	Michael Cole	22,240	22,240	0	100%	35%	7,784	Wood Chipper	Approve	
6132	Douglas N. Smith	999	999	0	100%	35%	350	Wood Chipper	Approve	
6133	Ned Ludlum	1,499	1,499	0	100%	35%	525	Wood Chipper	Approve	
6141	Norman J. Schafer	1,600	1,600	0	100%	35%	560	Wood Chipper	Approve	
	<b>Sum</b>	<b>22,422,849</b>	<b>17,319,951</b>				<b>8,640,291</b>			

# Attachment B

## Approvals

The Department presents 24 applications for approval in this attachment. The recommended facility cost on 3 of the applications is less than the amount the applicant claimed. The percentage of the facility cost allocable to pollution control is 100% for all facilities.

The Department considers that all applications in this attachment meet the eligibility requirements for certificate issuance according to the Pollution Control Facilities Tax Credit regulations. There are no applications presented for preliminary certification of a pollution control facility.

The Review Reports in this Approvals section are separated into the categories below. The pastel separator pages discuss program information unique to that category of applications.

- Air Pollution Control Facilities
- Alternatives to Field Burning Facilities
- Nonpoint Source Pollution Control Facilities: Wood Chippers
- Water Pollution Control Facilities

The statistics for all tax credit applications recommended for approval are shown below:

	<b>Sum</b>	<b>Average</b>	<b>Minimum</b>	<b>Maximum</b>
<b>Claimed</b>	\$22,422,849	\$934,285	\$630	\$14,614,345
<b>Certified</b>	\$17,319,951	\$721,665	\$630	\$11,213,435
<b>GF Liability</b>	\$8,640,291	\$360,012	\$221	\$5,606,718



## Air Pollution Control Facilities

The Department recommends the Commission approve **2** facilities for certification as air pollution control facilities. The statistics for these approvals are:

	Sum	Average	Minimum	Maximum
<b>Claimed</b>	\$7,420,358	\$3,710,179	\$253,512	\$7,166,846
<b>Certified</b>	\$5,718,370	\$2,859,185	\$217,111	\$5,501,259
<b>GF Liability</b>	\$2,859,185	\$1,429,593	\$108,556	\$2,750,630

A summary of the air pollution control facilities is on the next page followed by the individual reports for each facility in application number order.

### Increase or Decrease in Cost

The recommended certified facility cost on **both** of the reports is less than the applicant requested on the application. The Department worked with each of these applicants to accurately identify the eligible costs. Each report explains the reason for the increase or reduction.

### Eligibility

The air pollution control facilities in this section are eligible for the tax credit because they have a **principal purpose** of meeting a requirement of the federal Environmental Protection Agency, the Oregon Department of Environmental Quality, or a regional air pollution authority. The facilities' primary and most important purposes are to comply with requirements to prevent, reduce, control, or eliminate air contamination by use of air cleaning devices as defined in ORS 468A.005 prior to discharge to the atmosphere. Each facility has only one primary and most important purpose.

**APPROVALS: Air  
Pollution Control Facilities Tax Credit**



State of Oregon  
Department of  
Environmental  
Quality

# Tax Credit Review Report

EQC 0602

Director's Recommendation:	<b>Approve - Reduced Cost</b>
Applicant	<b>LSI Logic Corporation</b>
Application No.	<b>5428</b>
Facility Cost	<b>\$5,501,259</b>
Percentage Allocable	<b>100%</b>
Maximum Tax Credit	<b>50%</b>
Useful Life	<b>10 years</b>

## Pollution Control Facility: Air

### Final Certification

ORS 468.150 -- 468.190

OAR 340-016-0005 -- 340-016-0050

### *Applicant Identification*

Organized as: **a C Corporation**

Business: **Electronics Manufacturer**

Taxpayer ID: **94-2712976**

The applicant's address is:

**1551 McCarthy Blvd.  
Milpitas, CA 95035**

### *Facility Identification*

The certificate will identify the facility as:

**A Munters VOC Abatement System  
27 Point of Use Scrubbers  
7 Beverly Pacific Acid Scrubbers**

The applicant is the owner of the facility located at:

**23400 NE Gilsan Street  
Gresham, OR 97030**

### *Technical Information*

The air pollution control equipment claimed in this application consists of:

#### Volatile Organic Compound (VOC) Abatement System

The applicant installed a thermal oxidizer to reduce VOC emissions from various process operations. The system is manufactured by Munters. Approximately 7 tons/year of VOC emissions are oxidized to carbon dioxide and water at a temperature of 1400° F. The destruction efficiency is over 90%.

#### Point of Use (POU) Scrubbers

The POU scrubbers consist of 21 Edwards Thermal Processing Units (TPU) and 6 Edwards Gas Reactor Columns (GRC). The TPUs control the hazardous air pollutant silane emitted from the plasma etch and chemical vapor deposition operations. The TPUs consist of a thermal oxidizer followed by a wet scrubber and have a destruction efficiency of 95%. The GRCs are dry reactors that chemically convert acid gases to non-hazardous salts and removes hydride gases from the exhaust stream. The GRCs control boron

trichloride, hydrogen chloride, and chlorine emissions from the diffusion furnaces and dry etch operations. These emissions are hazardous air pollutants listed in the Federal Clean Air Act, Section 112(r). The GRCs use a catalyst at an elevated temperature to oxidize the emissions.

The exhaust gases from the POU scrubbers are routed to the Acid Exhaust Abatement System to ensure these exhaust gas streams are treated in the event of POU failure.

Acid Exhaust Abatement System

The applicant installed seven horizontal wet scrubbers manufactured by the Beverly Pacific Company. The scrubbers range in size from 11,600 cubic feet per minute (cfm) to 43,800 cfm. The scrubbers remove about 4 tons of sulfuric acid, ammonium hydroxide and hydrofluoric acid emissions from various processes.

**Eligibility**

ORS 468.155 (1)(a)(A) VOC system, point of use scrubbers and the acid exhaust abatement system. The **principal purpose** of this **new equipment installation** is to comply with a requirement imposed by the applicant's Air Contaminant Discharge Permit to **control** VOC emissions, hazardous air pollutants and acid fumes, which meet the definitions of air pollution.

ORS 468.155 (1)(b) The **control** is accomplished by the elimination of air contaminants and the use of air scrubbers, which meet the definition in ORS 468B.005 of an air cleaning device.

ORS 468.173(1) The maximum tax credit available to the applicant is **50%** because construction of the facility commenced prior to January 1, 2001.

**Timeliness of Application**

The applicant submitted the application within the timing requirements of the 1999 edition of ORS 468.165 (6).

<i>Construction Started</i>	<u>8/1/95</u>
<i>Construction Completed</i>	<u>9/30/98</u>
<i>Facility Placed into Operation</i>	<u>9/30/98</u>
<i>Application Received</i>	<u>6/30/00</u>

**Facility Cost**

Claimed Cost	\$7,166,846
Ineligible costs removed by applicant	<u>-1,665,587</u>
Eligible Cost	<b>\$5,501,259</b>

The applicant submitted copies of purchase orders, invoices, change order justification memos, payment applications, financial analysis notes by Ernst and Young and similar financial documents to support the cost of the facility.

***Facility Cost Allocable to Pollution Control***

The following factors were used to determine that **100%** of the facility cost is allocable to pollution control.

<b>Factor</b>	<b>Applied to This Facility</b>
ORS 468.190(1)(a) Salable or Usable Commodity	No salable or useable commodity of net positive value.
ORS 468.190(1)(b) Return on Investment	The useful life of the facility used for the return on investment consideration is 10 years. No gross annual revenues were associated with this facility.
ORS 468.190(1)(c) Alternative Methods	No alternatives were considered.
ORS 468.190(1)(d) Savings or Increase in Costs	No savings or increase in costs.
ORS 468.190(1)(e) Other Relevant Factors	No other relevant factors.

***Compliance and Other Tax Credits***

The applicant claims the facility is in compliance with Department rules and statutes. The applicant is operating under Air Contaminant Discharge Permit #26-0027 issued on 7/17/96. No previous pollution control facilities tax credit certificates have been issued to the applicant.

Reviewer: Michael G. Ruby, Ph.D., P.E., Envirometrics, Inc.  
Maggie Vandehey, DEQ



State of Oregon  
Department of  
Environmental  
Quality

Director's  
Recommendation: **APPROVE - Reduced Cost**

Applicant	<b>Dravon Medical, Inc.</b>
Application No.	<b>5596</b>
Facility Cost	<b>\$217,111</b>
Percentage Allocable	<b>100%</b>
Maximum Tax Credit	<b>50%</b>
Useful Life	<b>5 years</b>

## Tax Credit Review Report

EQC 0602

**Pollution Control Facility: Air  
Final Certification**  
ORS 468.150 -- 468.190  
OAR 340-016-0005 -- 340-016-0080

### *Applicant Identification*

Organized as: **C Corporation**  
Business: **Sterilization of medical devices**  
Taxpayer ID: **93-1020493**

The applicant's address is:

**11465 S.E. Highway 212  
Clackamas, Oregon 97015**

### *Facility Identification*

The applicant claimed:

**Donaldson ETO-Abator, Model 2000 SCFM,  
Dekker Vacuum Technologies  
Model VMX0200DA1-25 oil lubricated  
vacuum pump.**

The applicant is the owner of the facility located at:

**11465 S.E. Highway 212  
Clackamas, Oregon 97015**

### *Technical Information*

The claimed facility is a catalytic thermal oxidizer that converts ethylene oxide, a hazardous air pollutant, into carbon dioxide and water. The applicant included a vacuum and other components that were required for the catalytic thermal oxidizer to function properly. The equipment is sized to handle 1,500 actual cubic feet per minute of air and an ethylene oxide flow of 0.5 pounds per minute. It is designed to control 99.9% of the ethylene oxide emission from the medical equipment sterilizer. Each year approximately 5,000 pounds of ethylene oxide gas would have been released in the environment without the catalytic abator.

***Facility Cost Allocable to Pollution Control***

The following factors were used to determine that 100% of the facility cost is allocable to pollution control.

<u>Factor</u>	<u>Applied to This Facility</u>
ORS 468.190(1)(a) Salable or Usable Commodity	No usable or salable commodity.
ORS 468.190(1)(b) Return on Investment (ROI)	The useful life of the facility used for the ROI consideration is 5 years. No gross annual revenues were associated with this facility.
ORS 468.190(1)(c) Alternative Methods	No alternative methods were considered.
ORS 468.190(1)(d) Savings or Increase in Costs	No savings or increase in costs was identified.
ORS 468.190(1)(e) Other Relevant Factors	No other relevant factors.

***Compliance and Other Tax Credits***

The applicant states the facility is in compliance with Department rules and statutes and with EQC orders. DEQ issued Air Contamination Discharge Permit Number 03-0030 on July 7, 1999. No other tax credits have been issued to the applicant.

Reviewer: Gordon Chun, P.E., SJO Consulting Engineers  
Dennis Cartier, Associate, SJO Consulting Engineers  
Maggie Vandehey, DEQ

# APPROVALS: Field Burning

## Pollution Control Facilities Tax Credit

### Eligible Alternative to Open Field Burning Facilities

The Department recommends the Commission approve certification of **one** application claiming equipment used as alternatives to open field burning. The recommendation does not include a reduction in the facility cost or the percentage of the cost that is allocable to pollution control.

#### Eligibility

The equipment on this application is **principal purpose** because it reduces the maximum number of acres that is open-burned in compliance with acreage limitations and allocations under OAR 340-266-0060.



State of Oregon  
Department of  
Environmental  
Quality

# Tax Credit Review Report

Directors	
Recommendation:	Approve
Applicant	Zigler Farms, LLC
Application No.	6057
Facility Cost	\$39,300.00
Percentage Allocable	100%
Maximum Tax Credit	35%
Useful Life	3

---

## Pollution Control Facility: Field Burning

### Final Certification

ORS 468.150 -- 468.190

OAR 340-016-0005 -- 340-016-0080

### *Applicant Identification*

Organized As: LLC

Business: Grass seed farm

Taxpayer ID: 93-1246567

The applicant's address is:

PO Box 71

Rickreall, OR 97371

### *Facility Identification*

The certificate will identify the facility as:

Two Bush Hog Model 2620 flex wing  
rotary cutters. Serial numbers 12-02052  
and 12-02060

The applicant is the Owner/Operator of the  
facility located at:

1097 N. Pacific Hwy. W.  
Rickreall, OR 97371

### *Technical Information*

The applicant claimed two new Bush Hog flex-wing rotary cutters used as an alternative to open field burning. The new equipment allows the applicant to remove all 3,000 acres under perennial grass seed production and 700 acres under annual grass seed production from being open field burned. The applicant currently manages a total of 3,700 acres. The applicant burned and baled their straw in the past.

### *Eligibility*

ORS 468.155 The sole purpose of the new equipment is to prevent a substantial quantity of air  
(1)(a)(A) pollution.

ORS 340-016- Equipment, facilities, and land for gathering, densifying, handling, storing  
0060 (4)(b)(A) transporting and incorporating grass straw or straw based products which will result in



**reduction of open field burning.**

ORS 468.155 **Replacement:** The claimed equipment does not replace any previously certified  
(3)(e) equipment.

ORS 468.173 The maximum tax credit available to the applicant is 35% because the certified cost  
(3)(f) of the facility does not exceed \$200,000.

***Timeliness of Application***

The application was submitted within  
the one-year filing requirement  
of the 2001 edition of ORS 468.165 (6).

*Construction Started*

02/05/2002

*Construction Completed*

02/05/2002

*Facility Placed into Operation*

02/12/2002

*Application Received*

02/13/2002

***Facility Cost***

Claimed Cost \$39,300.00

Eligible Cost **\$39,300.00**

Copies of invoices and a project summary report substantiated the claimed facility cost.

***Facility Cost Allocable to Pollution Control***

The only factor used in determining that **100%** of the claimed facility cost is allocable to pollution control is the percentage of time the facility is used for pollution control.

[ORS 468.190 (3)]

***Compliance and Other Tax Credits***

The applicant states that the facility is in compliance with Department rules and statutes and with EQC orders. There are no DEQ permits issued to the facility.

Reviewers: John Hamblin, Department of Agriculture  
Maggie Vandehey, DEQ

## Summary: Recommended Action

### Nonpoint Source Pollution Control Facilities: Wood Chippers

The Department recommends the Commission approve 18 nonpoint source (NPS) wood chippers for certification as pollution control facilities. The statistics for the wood chipper approvals are:

	Sum	Average	Minimum	Maximum
Claimed	\$91,930	\$5,107	\$630	\$22,240
Certified	\$91,930	\$5,107	\$630	\$22,240
GF Liability	\$32,176	\$1,788	\$221	\$7,784

A list of all the NPS facilities is on the next five pages followed by the review reports for each pollution control facility. The reports are in application number order.

#### Increase or Decrease in Cost

The recommended certified facility cost on **all** reports is the amount the applicant requested on the application.

#### Eligibility

The wood chippers in this section are eligible for the pollution control facilities tax credit because they have the **sole purpose** of reducing a significant amount of nonpoint source pollution as provided in ORS 468.155 (2).

**APPROVALS: NPS Wood Chippers**  
Pollution Control Facilities Tax Credit

**Eligible Nonpoint Source Facilities**

App #	Applicant	Cost			+/-	%	Max. TC	GF Liability
		Claimed	Certified					
6065	Scott McConnachie	6,200	6,200	0	100%	35%	2,170	
6070	Donn Callaham	4,800	4,800	0	100%	35%	1,680	
6076	James C. Embree	1,499	1,499	0	100%	35%	525	
6077	Leonard J. George	630	630	0	100%	35%	221	
6081	Bassett and Sons, Inc.	9,675	9,675	0	100%	35%	3,386	
6087	David E. Chambers	19,500	19,500	0	100%	35%	6,825	
6093	Robert D. Cunningham	2,350	2,350	0	100%	35%	823	
6107	Richard McCollum	1,599	1,599	0	100%	35%	560	
6111	Robert R. Shumaker	2,925	2,925	0	100%	35%	1,024	
6114	Holce Logging Co., Inc.	2,359	2,359	0	100%	35%	826	
6117	Blue Darter Farms	2,150	2,150	0	100%	35%	753	
6118	Bruce C. Jones	2,200	2,200	0	100%	35%	770	
6120	Gregory Dale Hess	2,210	2,210	0	100%	35%	774	
6125	Robert F. Bradford	7,495	7,495	0	100%	35%	2,623	
6128	Michael Cole	22,240	22,240	0	100%	35%	7,784	
6132	Douglas N. Smith	999	999	0	100%	35%	350	
6133	Ned Ludlum	1,499	1,499	0	100%	35%	525	
6141	Norman J. Schafer	1,600	1,600	0	100%	35%	560	



State of Oregon  
Department of  
Environmental  
Quality

# Tax Credit Review Report

EQC 6/7/2002

Director's Recommendation:	Approve
Applicant	Scott McConnachie
Application No.	6065
Facility Cost	\$6,200.00
Percentage Allocable	100%
Maximum Tax Credit	35%
Useful Life	3 years

**Pollution Control Facility: NPS**  
**Final Certification**  
ORS 468.150 -- 468.190  
OAR 340-016-0005 -- 340-016-0080

***Applicant Identification***  
Organized as: **Individual**

The applicant's address is:

**PO Box 1643  
Oregon City, OR 97045**

***Facility Identification***

The applicant identified the facility as:

**Valby PTO, Model CH160T, 6" capacity  
Serial # 3510797**

The applicant is the owner of the **mobile** facility  
garaged at:

**5S 3E SEC. 32, Lots 100 & 200  
Molalla, OR 97038**

***Eligibility***

- ORS 468.155 (1)(a)(B) The **sole purpose** of this **new equipment** is to reduce a substantial quantity of nonpoint source pollution.
- ORS 468.155 (2)(b) The **nonpoint source pollution reduction** is accomplished by the use of a wood chipper to reduce openly burned woody debris.
- ORS 315.304  
ORS 468.173 (2)(c) The maximum tax credit available to the applicant is **35%** because the wood chipper was purchased on or after January 1, 2002, and it is a nonpoint source facility.

***Timeliness of Application***

The application was submitted within the timing requirements of ORS 468.165 (6).

*Purchase Date*

02/08/2002

*Application Received*

02/25/2002

***Facility Cost***

Claimed Cost	<u>\$6,200.00</u>
Eligible Cost	<b>\$6,200.00</b>

An invoice substantiated the facility cost.

***Facility Cost Allocable to Pollution Control***

The only factor used in determining that 100% of the cost of the wood chipper is allocable to air pollution control is the percentage of time the facility is used for pollution control.

***Compliance and Other Tax Credits***

The facility is in compliance with Department rules and statutes and with EQC orders. No DEQ permits have been issued to the applicant at this location. No other tax credits have been issued to the applicant.

Reviewer: Maggie Vandehey, DEQ



State of Oregon  
Department of  
Environmental  
Quality

# Tax Credit Review Report

EQC 6/7/2002

Director's Recommendation:	Approve
Applicant	Donn Callaham
Application No.	6070
Facility Cost	\$4,800.00
Percentage Allocable	100%
Maximum Tax Credit	35%
Useful Life	2 years

**Pollution Control Facility: NPS**  
**Final Certification**  
ORS 468.150 -- 468.190  
OAR 340-016-0005 -- 340-016-0080

***Applicant Identification***  
Organized as: **Individual**

The applicant's address is:

23351 NW Turner Creek Road  
Yamhill, OR 97148

***Facility Identification***  
The applicant identified the facility as:

**GME PTO, Model 24P, 6" capacity  
Serial # 19138.**

The applicant is the owner of the **mobile** facility  
garaged at:

**23351 NW Turner Creek Road  
Yamhill, OR 97148**

## ***Eligibility***

- ORS 468.155 (1)(a)(B) The **sole purpose** of this **new equipment** is to reduce a substantial quantity of nonpoint source pollution.
- ORS 468.155 (2)(b) The **nonpoint source pollution reduction** is accomplished by the use of a wood chipper to reduce openly burned woody debris.
- ORS 315.304  
ORS 468.173 (2)(c) The maximum tax credit available to the applicant is **35%** because the wood chipper was purchased on or after January 1, 2002, and it is a nonpoint source facility.

***Timeliness of Application***

The application was submitted within the timing requirements of ORS 468.165 (6).

*Purchase Date*

02/01/2002

*Application Received*

02/27/2002

***Facility Cost***

Claimed Cost	<u>\$4,800.00</u>
Eligible Cost	<b>\$4,800.00</b>

An invoice substantiated the facility cost.

***Facility Cost Allocable to Pollution Control***

The only factor used in determining that 100% of the cost of the wood chipper is allocable to air pollution control is the percentage of time the facility is used for pollution control.

***Compliance and Other Tax Credits***

The facility is in compliance with Department rules and statutes and with EQC orders. No DEQ permits have been issued to the applicant at this location. No other tax credits have been issued to the applicant.

Reviewer: Maggie Vandehey, DEQ



State of Oregon  
Department of  
Environmental  
Quality

# Tax Credit Review Report

EQC 6/7/2002

Director's Recommendation:	<b>Approve</b>
Applicant	<b>James C. Embree</b>
Application No.	<b>6076</b>
Facility Cost	<b>\$1,499.00</b>
Percentage Allocable	<b>100%</b>
Maximum Tax Credit	<b>35%</b>
Useful Life	<b>1 year</b>

## Pollution Control Facility: NPS

### Final Certification

ORS 468.150 -- 468.190

OAR 340-016-0005 -- 340-016-0080

### *Applicant Identification*

Organized as: **Individual**

The applicant's address is:

**1513 SE Ammon Road  
Toledo, OR 97391**

### *Facility Identification*

The applicant identified the facility as:

**BearCat chipper, Model 70080, 8 hp, 3"  
capacity, Serial # 105855**

The applicant is the owner of the **mobile** facility  
garaged at:

**1513 SE Ammon Road  
Toledo, OR 97391**

### *Eligibility*

ORS 468.155 (1)(a)(B) The **sole purpose** of this **new equipment** is to reduce a substantial quantity of nonpoint source pollution.

ORS 468.155 (2)(b) The **nonpoint source pollution reduction** is accomplished by the use of a wood chipper to reduce openly burned woody debris.

ORS 315.304  
ORS 468.173 (2)(c) The maximum tax credit available to the applicant is **35%** because the wood chipper was purchased on or after January 1, 2002, and it is a nonpoint source facility.



***Timeliness of Application***

The application was submitted within the timing requirements of ORS 468.165 (6).

*Purchase Date*

02/24/2002

*Application Received*

03/04/2002

***Facility Cost***

Claimed Cost	<u>\$1,499.00</u>
Eligible Cost	<b>\$1,499.00</b>

An invoice substantiated the facility cost.

***Facility Cost Allocable to Pollution Control***

The only factor used in determining that 100% of the cost of the wood chipper is allocable to air pollution control is the percentage of time the facility is used for pollution control.

***Compliance and Other Tax Credits***

The facility is in compliance with Department rules and statutes and with EQC orders. No DEQ permits have been issued to the applicant at this location. No other tax credits have been issued to the applicant.

Reviewer: Maggie Vandehey, DEQ



State of Oregon  
Department of  
Environmental  
Quality

# Tax Credit Review Report

EQC 6/7/2002

Director's Recommendation:	Approve
Applicant	Leonard J. George
Application No.	6077
Facility Cost	\$630.00
Percentage Allocable	100%
Maximum Tax Credit	35%
Useful Life	1 year

## Pollution Control Facility: NPS

### Final Certification

ORS 468.150 -- 468.190

OAR 340-016-0005 -- 340-016-0080

### *Applicant Identification*

Organized as: **Individual**

The applicant's address is:

**25364 Lamb Road  
Elmira, OR 97437**

### *Facility Identification*

The applicant identified the facility as:

**Sears Craftsman chipper, Model 247.775880,  
3" capacity, 8 hp woodchipper  
Serial # 1H091G20223**

The applicant is the owner of the **mobile** facility garaged at:

**25364 Lamb Road  
Elmira, OR 97437**

### *Eligibility*

- ORS 468.155 (1)(a)(B) The **sole purpose** of this **new equipment** is to reduce a substantial quantity of nonpoint source pollution.
- ORS 468.155 (2)(b) The **nonpoint source pollution reduction** is accomplished by the use of a wood chipper to reduce openly burned woody debris.
- ORS 315.304  
ORS 468.173 (2)(c) The maximum tax credit available to the applicant is **35%** because the wood chipper was purchased on or after January 1, 2002, and it is a nonpoint source facility.

***Timeliness of Application***

The application was submitted within the timing requirements of ORS 468.165 (6).

*Purchase Date*

02/10/2002

*Application Received*

03/04/2002

***Facility Cost***

Claimed Cost	<u>\$630.00</u>
Eligible Cost	<b>\$630.00</b>

An invoice substantiated the facility cost.

***Facility Cost Allocable to Pollution Control***

The only factor used in determining that 100% of the cost of the wood chipper is allocable to air pollution control is the percentage of time the facility is used for pollution control.

***Compliance and Other Tax Credits***

The facility is in compliance with Department rules and statutes and with EQC orders. No DEQ permits have been issued to the applicant at this location. No other tax credits have been issued to the applicant.

Reviewer: Maggie Vandehey, DEQ



State of Oregon  
Department of  
Environmental  
Quality

# Tax Credit Review Report

EQC 6/7/2002

Director's Recommendation:	Approve
Applicant	Bassett and Sons, Inc.
Application No.	6081
Facility Cost	\$9,675.00
Percentage Allocable	100%
Maximum Tax Credit	35%
Useful Life	3 years

**Pollution Control Facility: NPS  
Final Certification**  
ORS 468.150 -- 468.190  
OAR 340-016-0005 -- 340-016-0080

## *Applicant Identification*

Organized as: S Corp

The applicant's address is:

5345 Commercial Street SE  
Salem, OR 97306

## *Facility Identification*

The applicant identified the facility as:

Vermeer chipper, Model BC625A, 6"  
capacity, 25 hp, Serial # 5212

The applicant is the owner of the mobile facility  
garaged at:

5345 Commercial Street SE  
Salem, OR 97306

## *Eligibility*

- ORS 468.155 (1)(a)(B) The **sole purpose** of this **new equipment** is to reduce a substantial quantity of nonpoint source pollution.
- ORS 468.155 (2)(b) The **nonpoint source pollution reduction** is accomplished by the use of a wood chipper to reduce openly burned woody debris.
- ORS 315.304  
ORS 468.173 (2)(c) The maximum tax credit available to the applicant is **35%** because the wood chipper was purchased on or after January 1, 2002, and it is a nonpoint source facility.

***Timeliness of Application***

The application was submitted within the timing requirements of ORS 468.165 (6).

*Purchase Date*

02/20/2002

*Application Received*

03/05/2002

***Facility Cost***

Claimed Cost	<u>\$9,675.00</u>
Eligible Cost	<u>\$9,675.00</u>

An invoice substantiated the facility cost.

***Facility Cost Allocable to Pollution Control***

The only factor used in determining that 100% of the cost of the wood chipper is allocable to air pollution control is the percentage of time the facility is used for pollution control.

***Compliance and Other Tax Credits***

The facility is in compliance with Department rules and statutes and with EQC orders. No DEQ permits have been issued to the applicant at this location. No other tax credits have been issued to the applicant.

Reviewer: Maggie Vandehey, DEQ



State of Oregon  
Department of  
Environmental  
Quality

# Tax Credit Review Report

EQC 6/7/2002

Director's Recommendation:	Approve
Applicant	David E. Chambers
Application No.	6087
Facility Cost	\$19,500.00
Percentage Allocable	100%
Maximum Tax Credit	35%
Useful Life	3 years

## Pollution Control Facility: NPS

### Final Certification

ORS 468.150 -- 468.190

OAR 340-016-0005 -- 340-016-0080

### *Applicant Identification*

Organized as: **Individual**

The applicant's address is:

**39338 Groshong Road NE  
Albany, OR 97321**

### *Facility Identification*

The applicant identified the facility as:

**Vermeer woodchipper, Model BC1230A  
Serial # 3135**

The applicant is the owner of the **mobile** facility  
garaged at:

**39338 Groshong Road NE  
Albany, OR 97321**

### *Eligibility*

ORS 468.155 (1)(a)(B) The **sole purpose** of this **new equipment** is to reduce a substantial quantity of nonpoint source pollution.

ORS 468.155 (2)(b) The **nonpoint source pollution reduction** is accomplished by the use of a wood chipper to reduce openly burned woody debris.

ORS 315.304  
ORS 468.173 (2)(c) The maximum tax credit available to the applicant is **35%** because the wood chipper was purchased on or after January 1, 2002, and it is a nonpoint source facility.

***Timeliness of Application***

The application was submitted within the timing requirements of ORS 468.165 (6).

*Purchase Date*

02/28/2002

*Application Received*

03/11/2002

***Facility Cost***

Claimed Cost	<u>\$19,500.00</u>
Eligible Cost	<b>\$19,500.00</b>

An invoice substantiated the facility cost.

***Facility Cost Allocable to Pollution Control***

The only factor used in determining that 100% of the cost of the wood chipper is allocable to air pollution control is the percentage of time the facility is used for pollution control.

***Compliance and Other Tax Credits***

The facility is in compliance with Department rules and statutes and with EQC orders. No DEQ permits have been issued to the applicant at this location. No other tax credits have been issued to the applicant.

Reviewer: Maggie Vandehey, DEQ



State of Oregon  
Department of  
Environmental  
Quality

# Tax Credit Review Report

EQC 6/7/2002

Director's Recommendation:	<b>Approve</b>
Applicant	<b>Robert D. Cunningham</b>
Application No.	<b>6093</b>
Facility Cost	<b>\$2,350.00</b>
Percentage Allocable	<b>100%</b>
Maximum Tax Credit	<b>35%</b>
Useful Life	<b>3 years</b>

## **Pollution Control Facility: NPS**

### **Final Certification**

ORS 468.150 -- 468.190

OAR 340-016-0005 -- 340-016-0080

### ***Applicant Identification***

Organized as: **Individual**

The applicant's address is:

**2083 E. 15th Street  
Eugene, OR 97439**

### ***Facility Identification***

The applicant identified the facility as:

**BearCat Woodchipper  
Model 70554**

The applicant is the owner of the **mobile** facility garaged at:

**93730 Deadwood Creek Road  
Deadwood, OR 97439**

### ***Eligibility***

ORS 468.155 (1)(a)(B) The **sole purpose** of this **new equipment** is to reduce a substantial quantity of nonpoint source pollution.

ORS 468.155 (2)(b) The **nonpoint source pollution reduction** is accomplished by the use of a wood chipper to reduce openly burned woody debris.

ORS 315.304  
ORS 468.173 (2)(c) The maximum tax credit available to the applicant is **35%** because the wood chipper was purchased on or after January 1, 2002, and it is a nonpoint source facility.



***Timeliness of Application***

The application was submitted within the timing requirements of ORS 468.165 (6).

*Purchase Date*

03/11/2002

*Application Received*

03/21/2002

***Facility Cost***

Claimed Cost	<u>\$2,350.00</u>
Eligible Cost	<b>\$2,350.00</b>

An invoice substantiated the facility cost.

***Facility Cost Allocable to Pollution Control***

The only factor used in determining that 100% of the cost of the wood chipper is allocable to air pollution control is the percentage of time the facility is used for pollution control.

***Compliance and Other Tax Credits***

The facility is in compliance with Department rules and statutes and with EQC orders. No DEQ permits have been issued to the applicant at this location. No other tax credits have been issued to the applicant.

Reviewer: Maggie Vandehey, DEQ



State of Oregon  
Department of  
Environmental  
Quality

# Tax Credit Review Report

EQC 6/7/2002

Director's Recommendation:	Approve
Applicant	Richard McCollum
Application No.	6107
Facility Cost	\$1,599.00
Percentage Allocable	100%
Maximum Tax Credit	35%
Useful Life	1 year

## Pollution Control Facility: NPS

### Final Certification

ORS 468.150 -- 468.190

OAR 340-016-0005 -- 340-016-0080

### *Applicant Identification*

Organized as: LLC

The applicant's address is:

6826 SW 62nd Place  
Portland, OR 97219

### *Facility Identification*

The applicant identified the facility as:

Mackissic Mighty Mac Model 12PT-9, 9 hp,  
3 1/2" capacity chipper/shredder  
Serial # 00536Z

The applicant is the owner of the **mobile** facility  
garaged at:

6826 SW 62nd Place  
Portland, OR 97219

### *Eligibility*

- ORS 468.155 (1)(a)(B) The **sole purpose** of this **new equipment** is to reduce a substantial quantity of nonpoint source pollution.
- ORS 468.155 (2)(b) The **nonpoint source pollution reduction** is accomplished by the use of a wood chipper to reduce openly burned woody debris.
- ORS 315.304  
ORS 468.173 (2)(c) The maximum tax credit available to the applicant is **35%** because the wood chipper was purchased on or after January 1, 2002, and it is a nonpoint source facility.

***Timeliness of Application***

The application was submitted within the timing requirements of ORS 468.165 (6).

*Purchase Date*

03/21/2002

*Application Received*

03/27/2002

***Facility Cost***

Claimed Cost	<u>\$1,599.00</u>
Eligible Cost	<b>\$1,599.00</b>

An invoice substantiated the facility cost.

***Facility Cost Allocable to Pollution Control***

The only factor used in determining that 100% of the cost of the wood chipper is allocable to air pollution control is the percentage of time the facility is used for pollution control.

***Compliance and Other Tax Credits***

The facility is in compliance with Department rules and statutes and with EQC orders. No DEQ permits have been issued to the applicant at this location. No other tax credits have been issued to the applicant.

Reviewer: Maggie Vandehey, DEQ



State of Oregon  
Department of  
Environmental  
Quality

# Tax Credit Review Report

EQC 6/7/2002

Director's Recommendation:	Approve
Applicant	Robert R. Shumaker
Application No.	6111
Facility Cost	\$2,925.00
Percentage Allocable	100%
Maximum Tax Credit	35%
Useful Life	1 year

**Pollution Control Facility: NPS  
Final Certification**  
ORS 468.150 -- 468.190  
OAR 340-016-0005 -- 340-016-0080

***Applicant Identification***  
Organized as: **Individual**

The applicant's address is:

**52490 NW Cedar Canyon Road  
Banks, OR 97106**

***Facility Identification***

The applicant identified the facility as:

**BearCat Model 73454 PTO, 4" woodchipper,  
Serial # 105084**

The applicant is the owner of the mobile facility  
garaged at:

**52490 NW Cedar Canyon Road  
Banks, OR 97106**

## ***Eligibility***

ORS 468.155 (1)(a)(B) The **sole purpose** of this **new equipment** is to reduce a substantial quantity of nonpoint source pollution.

ORS 468.155 (2)(b) The **nonpoint source pollution reduction** is accomplished by the use of a wood chipper to reduce openly burned woody debris.

ORS 315.304  
ORS 468.173 (2)(c) The maximum tax credit available to the applicant is **35%** because the wood chipper was purchased on or after January 1, 2002, and it is a nonpoint source facility.

***Timeliness of Application***

The application was submitted within the timing requirements of ORS 468.165 (6).

*Purchase Date*

03/25/2002

*Application Received*

03/29/2002

***Facility Cost***

Claimed Cost	<u>\$2,925.00</u>
Eligible Cost	<u>\$2,925.00</u>

An invoice substantiated the facility cost.

***Facility Cost Allocable to Pollution Control***

The only factor used in determining that 100% of the cost of the wood chipper is allocable to air pollution control is the percentage of time the facility is used for pollution control.

***Compliance and Other Tax Credits***

The facility is in compliance with Department rules and statutes and with EQC orders. No DEQ permits have been issued to the applicant at this location. No other tax credits have been issued to the applicant.

Reviewer: Maggie Vandehey, DEQ



State of Oregon  
Department of  
Environmental  
Quality

# Tax Credit Review Report

EQC 6/7/2002

Director's Recommendation:	Approve
Applicant	Holce Logging Company Inc.
Application No.	6114
Facility Cost	\$2,359.00
Percentage Allocable	100%
Maximum Tax Credit	35%
Useful Life	1 year

## Pollution Control Facility: NPS Final Certification

ORS 468.150 -- 468.190  
OAR 340-016-0005 -- 340-016-0080

## *Applicant Identification*

Organized as: C Corp

The applicant's address is:

PO Box 127  
Vernonia, OR 97064

## *Facility Identification*

The applicant identified the facility as:

Briggs & Stratton Drive Chipper, Model  
C18-CHP 18.0 hp, Serial # 138520

The applicant is the owner of the mobile facility  
garaged at:

60735 Stoney Point Road  
Vernonia, OR 97064

## *Eligibility*

- ORS 468.155 (1)(a)(B) The **sole purpose** of this **new equipment** is to reduce a substantial quantity of nonpoint source pollution.
- ORS 468.155 (2)(b) The **nonpoint source pollution reduction** is accomplished by the use of a wood chipper to reduce openly burned woody debris.
- ORS 315.304  
ORS 468.173 (2)(c) The maximum tax credit available to the applicant is **35%** because the wood chipper was purchased on or after January 1, 2002, and it is a nonpoint source facility.

***Timeliness of Application***

The application was submitted within the timing requirements of ORS 468.165 (6).

*Purchase Date*

02/15/2002

*Application Received*

04/01/2002

***Facility Cost***

Claimed Cost	<u>\$2,359.00</u>
Eligible Cost	<u>\$2,359.00</u>

An invoice substantiated the facility cost.

***Facility Cost Allocable to Pollution Control***

The only factor used in determining that 100% of the cost of the wood chipper is allocable to air pollution control is the percentage of time the facility is used for pollution control.

***Compliance and Other Tax Credits***

The facility is in compliance with Department rules and statutes and with EQC orders. No DEQ permits have been issued to the applicant at this location. No other tax credits have been issued to the applicant.

Reviewer: Maggie Vandehey, DEQ



State of Oregon  
Department of  
Environmental  
Quality

# Tax Credit Review Report

EQC 6/7/2002

Director's Recommendation:	Approve
Applicant	Blue Darter Farms
Application No.	6117
Facility Cost	\$2,150.00
Percentage Allocable	100%
Maximum Tax Credit	35%
Useful Life	1 year

**Pollution Control Facility: NPS  
Final Certification**  
ORS 468.150 -- 468.190  
OAR 340-016-0005 -- 340-016-0080

***Applicant Identification***  
Organized as: **Sole Proprietor**

The applicant's address is:

**27111 SW Vanderschuere Road  
Hillsboro, OR 97123**

***Facility Identification***  
The applicant identified the facility as:

**BearCat Model 70554 PTO chipper  
Serial # 107341**

The applicant is the owner of the **mobile** facility  
garaged at:

**27111 SW Vanderschuere Road  
Hillsboro, OR 97123**

## ***Eligibility***

- ORS 468.155 (1)(a)(B) The **sole purpose** of this **new equipment** is to reduce a substantial quantity of nonpoint source pollution.
- ORS 468.155 (2)(b) The **nonpoint source pollution reduction** is accomplished by the use of a wood chipper to reduce openly burned woody debris.
- ORS 315.304  
ORS 468.173 (2)(c) The maximum tax credit available to the applicant is **35%** because the wood chipper was purchased on or after January 1, 2002, and it is a nonpoint source facility.



***Timeliness of Application***

The application was submitted within the timing requirements of ORS 468.165 (6).

*Purchase Date*03/08/2002*Application Received*04/04/2002***Facility Cost***

Claimed Cost	<u>\$2,150.00</u>
Eligible Cost	<b>\$2,150.00</b>

An invoice substantiated the facility cost.

***Facility Cost Allocable to Pollution Control***

The only factor used in determining that 100% of the cost of the wood chipper is allocable to air pollution control is the percentage of time the facility is used for pollution control.

***Compliance and Other Tax Credits***

The facility is in compliance with Department rules and statutes and with EQC orders. No DEQ permits have been issued to the applicant at this location. No other tax credits have been issued to the applicant.

Reviewer: Maggie Vandehey, DEQ



State of Oregon  
Department of  
Environmental  
Quality

# Tax Credit Review Report

EQC 6/7/2002

Director's Recommendation:	<b>Approve</b>
Applicant	<b>Bruce C. Jones</b>
Application No.	<b>6118</b>
Facility Cost	<b>\$2,200.00</b>
Percentage Allocable	<b>100%</b>
Maximum Tax Credit	<b>35%</b>
Useful Life	<b>1 year</b>

## Pollution Control Facility: NPS

### Final Certification

ORS 468.150 -- 468.190

OAR 340-016-0005 -- 340-016-0080

### *Applicant Identification*

Organized as: **Individual**

The applicant's address is:

**7540 NW Ridgewood  
Corvallis, OR 97330**

### *Facility Identification*

The applicant identified the facility as:

**BearCat Model 70554 PTO, 26 hp chipper,  
Serial # 105460**

The applicant is the owner of the **mobile** facility  
garaged at:

**7540 NW Ridgewood  
Corvallis, OR 97330**

### *Eligibility*

ORS 468.155 (1)(a)(B) The **sole purpose** of this **new equipment** is to reduce a substantial quantity of nonpoint source pollution.

ORS 468.155 (2)(b) The **nonpoint source pollution reduction** is accomplished by the use of a wood chipper to reduce openly burned woody debris.

ORS 315.304  
ORS 468.173 (2)(c) The maximum tax credit available to the applicant is **35%** because the wood chipper was purchased on or after January 1, 2002, and it is a nonpoint source facility.

***Timeliness of Application***

The application was submitted within the timing requirements of ORS 468.165 (6).

*Purchase Date*

02/11/2002

*Application Received*

04/04/2002

***Facility Cost***

Claimed Cost	<u>\$2,200.00</u>
Eligible Cost	<b>\$2,200.00</b>

An invoice substantiated the facility cost.

***Facility Cost Allocable to Pollution Control***

The only factor used in determining that **100%** of the cost of the wood chipper is allocable to air pollution control is the percentage of time the facility is used for pollution control.

***Compliance and Other Tax Credits***

The facility is in compliance with Department rules and statutes and with EQC orders. No DEQ permits have been issued to the applicant at this location. No other tax credits have been issued to the applicant.

Reviewer: Maggie Vandehey, DEQ



State of Oregon  
Department of  
Environmental  
Quality

# Tax Credit Review Report

EQC 6/7/2002

Director's Recommendation:	Approve
Applicant	Gregory Dale Hess
Application No.	6120
Facility Cost	\$2,210.00
Percentage Allocable	100%
Maximum Tax Credit	35%
Useful Life	1 year

## Pollution Control Facility: NPS

### Final Certification

ORS 468.150 -- 468.190

OAR 340-016-0005 -- 340-016-0080

### *Applicant Identification*

Organized as: **Individual**

The applicant's address is:

**16815 S Hattan Road  
Oregon City, OR 97045**

### *Facility Identification*

The applicant identified the facility as:

**Dr. Chipper Model CPI, 18 hp woodchipper,  
Serial # 01636N**

The applicant is the owner of the **mobile** facility  
garaged at:

**16815 S Hattan Road  
Oregon City, OR 97045**

### *Eligibility*

ORS 468.155 (1)(a)(B) The **sole purpose** of this **new equipment** is to reduce a substantial quantity of nonpoint source pollution.

ORS 468.155 (2)(b) The **nonpoint source pollution reduction** is accomplished by the use of a wood chipper to reduce openly burned woody debris.

ORS 315.304  
ORS 468.173 (2)(c) The maximum tax credit available to the applicant is **35%** because the wood chipper was purchased on or after January 1, 2002, and it is a nonpoint source facility.

***Timeliness of Application***

The application was submitted within the timing requirements of ORS 468.165 (6).

*Purchase Date*  
*Application Received*

02/02/2002

04/08/2002

***Facility Cost***

Claimed Cost	<u>\$2,210.00</u>
Eligible Cost	<b>\$2,210.00</b>

An invoice substantiated the facility cost.

***Facility Cost Allocable to Pollution Control***

The only factor used in determining that **100%** of the cost of the wood chipper is allocable to air pollution control is the percentage of time the facility is used for pollution control.

***Compliance and Other Tax Credits***

The facility is in compliance with Department rules and statutes and with EQC orders. No DEQ permits have been issued to the applicant at this location. No other tax credits have been issued to the applicant.

Reviewer: Maggie Vandehey, DEQ



State of Oregon  
Department of  
Environmental  
Quality

# Tax Credit Review Report

EQC 6/7/2002

Director's Recommendation:	<b>Approve</b>
Applicant	<b>Robert F. Bradford</b>
Application No.	<b>6125</b>
Facility Cost	<b>\$7,495.00</b>
Percentage Allocable	<b>100%</b>
Maximum Tax Credit	<b>35%</b>
Useful Life	<b>3 years</b>

## **Pollution Control Facility: NPS**

### **Final Certification**

ORS 468.150 -- 468.190

OAR 340-016-0005 -- 340-016-0080

### ***Applicant Identification***

Organized as: **Individual**

The applicant's address is:

**9100 W Evans Creek Road  
Rogue River, OR 97537**

### ***Facility Identification***

The applicant identified the facility as:

**BearCat Model 72854 PTO, 8" capacity  
Serial # Y04079**

The applicant is the owner of the **mobile facility** garaged at:

**9100 W Evans Creek Road  
Rogue River, OR 97537**

### ***Eligibility***

- ORS 468.155 (1)(a)(B) The **sole purpose** of this **new equipment** is to reduce a substantial quantity of nonpoint source pollution.
- ORS 468.155 (2)(b) The **nonpoint source pollution reduction** is accomplished by the use of a wood chipper to reduce openly burned woody debris.
- ORS 315.304  
ORS 468.173 (2)(c) The maximum tax credit available to the applicant is **35%** because the wood chipper was purchased on or after January 1, 2002, and it is a nonpoint source facility.

***Timeliness of Application***

The application was submitted within the timing requirements of ORS 468.165 (6).

*Purchase Date*  
*Application Received*

04/08/2002

04/15/2002

***Facility Cost***

Claimed Cost	<u>\$7,495.00</u>
Eligible Cost	<u>\$7,495.00</u>

An invoice substantiated the facility cost.

***Facility Cost Allocable to Pollution Control***

The only factor used in determining that **100%** of the cost of the wood chipper is allocable to air pollution control is the percentage of time the facility is used for pollution control.

***Compliance and Other Tax Credits***

The facility is in compliance with Department rules and statutes and with EQC orders. No DEQ permits have been issued to the applicant at this location. No other tax credits have been issued to the applicant.

Reviewer: Maggie Vandehey, DEQ



State of Oregon  
Department of  
Environmental  
Quality

# Tax Credit Review Report

EQC 6/7/2002

Director's Recommendation:	Approve
Applicant	Michael Cole
Application No.	6128
Facility Cost	\$22,240.00
Percentage Allocable	100%
Maximum Tax Credit	35%
Useful Life	3 years

## Pollution Control Facility: NPS

### Final Certification

ORS 468.150 -- 468.190

OAR 340-016-0005 -- 340-016-0080

### *Applicant Identification*

Organized as: **Individual**

The applicant's address is:

**63558 Seven Devils Road  
Coos Bay, OR 97420**

### *Facility Identification*

The applicant identified the facility as:

**Brush Bandit Model 250XP, 12" capacity  
Serial # 15007**

The applicant is the owner of the **mobile** facility garaged at:

**63558 Seven Devils Road  
Coos Bay, OR 97420**

### *Eligibility*

- ORS 468.155 (1)(a)(B) The **sole purpose** of this **new equipment** is to reduce a substantial quantity of nonpoint source pollution.
- ORS 468.155 (2)(b) The **nonpoint source pollution reduction** is accomplished by the use of a wood chipper to reduce openly burned woody debris.
- ORS 315.304  
ORS 468.173 (2)(c) The maximum tax credit available to the applicant is **35%** because the wood chipper was purchased on or after January 1, 2002, and it is a nonpoint source facility.



***Timeliness of Application***

The application was submitted within the timing requirements of ORS 468.165 (6).

*Purchase Date*

04/03/2002

*Application Received*

04/15/2002

***Facility Cost***

Claimed Cost	<u>\$22,240.00</u>
Eligible Cost	<u>\$22,240.00</u>

An invoice substantiated the facility cost.

***Facility Cost Allocable to Pollution Control***

The only factor used in determining that 100% of the cost of the wood chipper is allocable to air pollution control is the percentage of time the facility is used for pollution control.

***Compliance and Other Tax Credits***

The facility is in compliance with Department rules and statutes and with EQC orders. No DEQ permits have been issued to the applicant at this location. No other tax credits have been issued to the applicant.

Reviewer: Maggie Vandehey, DEQ



State of Oregon  
Department of  
Environmental  
Quality

# Tax Credit Review Report

EQC 6/7/2002

Director's Recommendation:	Approve
Applicant	Douglas Smith
Application No.	6132
Facility Cost	\$999.00
Percentage Allocable	100%
Maximum Tax Credit	35%
Useful Life	1 year

## Pollution Control Facility: NPS

### Final Certification

ORS 468.150 -- 468.190

OAR 340-016-0005 -- 340-016-0080

### *Applicant Identification*

Organized as: **Individual**

The applicant's address is:

**371 NE Gwen Court  
Hillsboro, OR 97124**

### *Facility Identification*

The applicant identified the facility as:

**BearCat Model 70050, 5 hp woodchipper  
Serial # 106834**

The applicant is the owner of the **mobile** facility  
garaged at:

**3010 NE Jackson School Road  
Hillsboro, OR 97124**

### *Eligibility*

- ORS 468.155 (1)(a)(B) The **sole purpose** of this **new equipment** is to reduce a substantial quantity of nonpoint source pollution.
- ORS 468.155 (2)(b) The **nonpoint source pollution reduction** is accomplished by the use of a wood chipper to reduce openly burned woody debris.
- ORS 315.304  
ORS 468.173 (2)(c) The maximum tax credit available to the applicant is **35%** because the wood chipper was purchased on or after January 1, 2002, and it is a nonpoint source facility.

***Timeliness of Application***

The application was submitted within the timing requirements of ORS 468.165 (6).

*Purchase Date*

03/27/2002

*Application Received*

04/19/2002

***Facility Cost***

Claimed Cost	<u>\$999.00</u>
Eligible Cost	<u>\$999.00</u>

An invoice substantiated the facility cost.

***Facility Cost Allocable to Pollution Control***

The only factor used in determining that 100% of the cost of the wood chipper is allocable to air pollution control is the percentage of time the facility is used for pollution control.

***Compliance and Other Tax Credits***

The facility is in compliance with Department rules and statutes and with EQC orders. No DEQ permits have been issued to the applicant at this location. No other tax credits have been issued to the applicant.

Reviewer: Maggie Vandehey, DEQ



State of Oregon  
Department of  
Environmental  
Quality

Director's Recommendation:	<b>Approve</b>
Applicant	<b>Ned Ludlum</b>
Application No.	<b>6133</b>
Facility Cost	<b>\$1499.00</b>
Percentage Allocable	<b>100%</b>
Maximum Tax Credit	<b>35%</b>
Useful Life	<b>1 year</b>

## Tax Credit Review Report

EOC 6/7/2002

**Pollution Control Facility: NPS**

**Final Certification**

ORS 468.150 -- 468.190

OAR 340-016-0005 -- 340-016-0080

### *Applicant Identification*

Organized as: **Individual**

The applicant's address is:

**36416 SW Bald Peak Road  
Hillsboro, OR 97124**

### *Facility Identification*

The applicant identified the facility as:

**BearCat Model 70180, 10 hp woodchipper  
Serial # 102891**

The applicant is the owner of the **mobile** facility  
garaged at:

**36416 SW Bald Peak Road  
Hillsboro, OR 97124**

### *Eligibility*

- ORS 468.155 (1)(a)(B) The **sole purpose** of this **new equipment** is to reduce a substantial quantity of nonpoint source pollution.
- ORS 468.155 (2)(b) The **nonpoint source pollution reduction** is accomplished by the use of a wood chipper to reduce openly burned woody debris.
- ORS 315.304  
ORS 468.173 (2)(c) The maximum tax credit available to the applicant is **35%** because the wood chipper was purchased on or after January 1, 2002, and it is a nonpoint source facility.

***Timeliness of Application***

The application was submitted within the timing requirements of ORS 468.165 (6).

*Purchase Date*

04/05/2002

*Application Received*

04/19/2002

***Facility Cost***

Claimed Cost	<u>\$1499.00</u>
Eligible Cost	<u>\$1499.00</u>

An invoice substantiated the facility cost.

***Facility Cost Allocable to Pollution Control***

The only factor used in determining that 100% of the cost of the wood chipper is allocable to air pollution control is the percentage of time the facility is used for pollution control.

***Compliance and Other Tax Credits***

The facility is in compliance with Department rules and statutes and with EQC orders. No DEQ permits have been issued to the applicant at this location. No other tax credits have been issued to the applicant.

Reviewer: Maggie Vandehey, DEQ



State of Oregon  
Department of  
Environmental  
Quality

## Tax Credit Review Report

EQC 6/7/2002

Director's Recommendation:	<b>Approve</b>
Applicant	<b>Norman Schafer</b>
Application No.	<b>6141</b>
Facility Cost	<b>\$1,600.00</b>
Percentage Allocable	<b>100%</b>
Maximum Tax Credit	<b>35%</b>
Useful Life	<b>1 year</b>

### **Pollution Control Facility: NPS**

#### **Final Certification**

ORS 468.150 -- 468.190

OAR 340-016-0005 -- 340-016-0080

### ***Applicant Identification***

Organized as: **Individual**

The applicant's address is:

**78877 Bryson-Sears Road  
Cottage Grove, OR 97424**

### ***Facility Identification***

The applicant identified the facility as:

**MacKissic Model 12PT-9, 9 hp woodchipper,  
Serial # 003537**

The applicant is the owner of the **mobile** facility  
garaged at:

**78877 Bryson-Sears Road  
Cottage Grove, OR 97424**

### ***Eligibility***

ORS 468.155 (1)(a)(B) The **sole purpose** of this **new equipment** is to reduce a substantial quantity of nonpoint source pollution.

ORS 468.155 (2)(b) The **nonpoint source pollution reduction** is accomplished by the use of a wood chipper to reduce openly burned woody debris.

ORS 315.304  
ORS 468.173 (2)(c) The maximum tax credit available to the applicant is **35%** because the wood chipper was purchased on or after January 1, 2002, and it is a nonpoint source facility.

***Timeliness of Application***

The application was submitted within the timing requirements of ORS 468.165 (6).

*Purchase Date*

03/09/2002

*Application Received*

04/30/2002

***Facility Cost***

Claimed Cost	<u>\$1600.00</u>
Eligible Cost	<b>\$1600.00</b>

An invoice substantiated the facility cost.

***Facility Cost Allocable to Pollution Control***

The only factor used in determining that **100%** of the cost of the wood chipper is allocable to air pollution control is the percentage of time the facility is used for pollution control.

***Compliance and Other Tax Credits***

The facility is in compliance with Department rules and statutes and with EQC orders. No DEQ permits have been issued to the applicant at this location. No other tax credits have been issued to the applicant.

Reviewer: Maggie Vandehey, DEQ

## Eligible Water Pollution Control Facilities

The Department recommends the Commission issue certificates to **three** water pollution control facilities. The statistics for these approvals are:

	Sum	Average	Minimum	Maximum
<b>Claimed</b>	\$14,871,261	\$4,957,087	\$59,253	\$14,614,345
<b>Certified</b>	\$11,470,351	\$3,823,450	\$59,253	\$11,213,435
<b>GF Liability</b>	\$5,735,176	\$1,911,725	\$29,627	\$5,606,718

### Increase or Decrease in Cost

The recommended certified facility cost on **one** report is less than the applicant requested on the application. The report explains the reason for the reduction.

### Eligibility

One facility in this section has a **principal purpose** meaning it complies with an EPA or DEQ requirement to prevent, control or reduce water pollution. Two facilities in this section were constructed or installed voluntarily and they have a **sole purpose** to prevent, control or reduce a substantial quantity of water pollution.

The water pollution control or reduction is accomplished by the disposal or elimination of or redesign to eliminate industrial waste and the use of treatment works for industrial waste as defined in ORS 468B.005.

**APPROVALS: Water  
Pollution Control Facilities Tax Credit**





State of Oregon  
Department of  
Environmental  
Quality

# Tax Credit Review Report

EQC 0602

## Pollution Control Facility: Water

### Final Certification

ORS 468.150 -- 468.190

OAR 340-016-0005 -- 340-016-0050

### *Applicant Identification*

Organized As: **C Corporation**

Business: **Electronics Manufacturer**

Taxpayer ID: **94-2712976**

The applicant's address is:

**1551 McCarthy Blvd.  
Milpitas, CA 95035**

Director's

Recommendation: **Approve - Reduced Cost**

Applicant **LSI Logic Corporation**

Application No. **5427**

Facility Cost **\$11,213,435**

Percentage Allocable **100%**

Maximum Tax Credit **50%**

Useful Life **10 years**

### *Facility Identification*

The certificate will identify the facility as:

**A wastewater treatment system that includes Storm Water Treatment, Acid Waste Neutralization, Microfiltration, Ammonia Treatment, and Hydrofluoric Acid Treatment**

The applicant is the owner of the facility located at:

**23400 NE Gilsan Street  
Gresham, OR 97030**

### *Technical Information*

Storm Water Facility: The claimed facility consists of trapped catch basins, piping to carry the surface runoff to a 6-acre storm water detention pond, and 1800 feet of bioswale. The system effectively removes 65% of total suspended solids from the site runoff.

Acid Waste Neutralization (AWN) System: The AWN system processes 600-gallons per minute (gpm) of wastewater. The system consists of an agitated, 20,000-gallon equalization tank, three 20,000-gallon treatment tanks, a monitoring tank, and a 100,000-gallon emergency holding tank, pumps and controls. The pH wastewater is controlled to be within the range of 6.0 to 9.0.

**Microfiltration:** The microfiltration system removes particles as small as 0.1 microns from two processes that generate wastewater containing very fine particulate that does not settle out. The system consists of two collection tanks (10,000 gallon & 375 gallon), two feed tanks, microfilter modules, an effluent tank (1,300 gallon), a filter press, pumps and controls. Approximately 5.5 million gallons of wastewater are treated per year, with over 24,000 pounds of solids removed.

**Ammonia Treatment System:** Several processes generate wastewater containing ammonia. The waste streams are pumped through an ion exchange system, which consists of three identical 510-gallon ion resin chambers that adsorb the ammonia from the wastewater. The system has a capacity of 75 gpm of wastewater containing up to 300 parts per million (ppm) ammonia. The ion exchange system will reduce ammonia levels to under 5 ppm.

**Hydrofluoric Acid (HF) Treatment:** The claimed facility is designed to remove fluorides from wastewater using lime to form calcium fluoride, which is a solid that can be removed by filtration. The system consists of a lime addition system, mix tank, two ten-foot Exxflow clarifiers, a filter press with a feed tank. The system is designed to accept wastewater with fluoride concentrations as high as 6,500 milligrams per liter (mg/L) at an average flow rate of 20 gpm. After treatment, the fluoride concentration is about 6 ppm, which is acceptable for discharge to the City of Gresham's treatment plant.

### **Eligibility**

- ORS 468.155 (1)(a)(A) The **principal purpose** of the storm water treatment, acid waste neutralization, ammonia treatment and hydrofluoric treatment systems are to comply with requirements of their Gresham Wastewater Discharge Permit #331, dated 11/01/96 and DEQ Storm Water Control Permit #108800 dated 9/29/95 to **control** water pollution.
- ORS 468.155 (1)(b)(A) The eligible treatment systems **control** industrial waste with the use of **treatment works** for industrial waste as defined in ORS 468B.005.
- ORS 468.173(1) The maximum tax credit available to the applicant is **50%** because construction of the facility commenced prior to January 1, 2001.

### **Timeliness of Application**

The application was submitted within the two-year timing requirements of the 1999 edition of ORS 468.165 (6).

*Construction Started*

8/1/95

*Claimed Date Construction Completed*

9/30/98

*Claimed Date Facility Placed into Operation*

9/30/98

*Application Received*

6/30/00

### **Facility Cost**

Claimed Cost	\$14,614,345
Ineligible costs removed by applicant	<u>-3,400,910</u>
Eligible Cost	<u>\$11,213,435</u>

Copies of purchase orders, invoices, change order justification memos, payment applications, financial analysis notes by Ernst and Young were provided to supported the facility cost.

### ***Facility Cost Allocable to Pollution Control***

The following factors were considered in determining that 100% of the facility cost is allocable to pollution control.

<b>Factor</b>	<b>Applied to This Facility</b>
ORS 468.190(1)(a) Salable or Usable Commodity	No salable or useable commodity of net positive value.
ORS 468.190(1)(b) Return on Investment	The useful life of the facility used for the return on investment consideration is 10 years. No gross annual revenues were associated with this facility.
ORS 468.190(1)(c) Alternative Methods	The applicant explored discharging to the City of Gresham.
ORS 468.190(1)(d) Savings or Increase in Costs	No savings or increase in costs.
ORS 468.190(1)(e) Other Relevant Factors	No other relevant factors.

### ***Compliance and Other Tax Credits***

The applicant claims the facility is in compliance with Department rules and statutes. The applicant is operating under the following permits:

Gresham Wastewater Discharge Permit #331, issued 11/1/96  
 NPDES General Permit 1200-Z, #109799, issued 9/25/95  
 DEQ Stormwater Control Permit #108800, issued 9/29/95  
 NPDES Stormwater Discharge Permit #1200-COLS, issued 12/22/99

No previous pollution control facilities tax credit certificates have been issued to the applicant.

Reviewers: Michael G. Ruby, Ph.D., P.E., Envirometrics, Inc.  
 Maggie Vandehey, DEQ



State of Oregon  
Department of  
Environmental  
Quality

Directors	
Recommendation:	Approve
Applicant	A-DEC Inc.
Application No.	5670
Facility Cost	\$197,663.00
Percentage Allocable	100%
Maximum Tax Credit	50%
Useful Life	10

## Tax Credit Review Report

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### Pollution Control Facility: Water

#### Final Certification

ORS 468.150 -- 468.190

OAR 340-016-0005 -- 340-016-0080

### *Applicant Identification*

Organized As: S. Corp

Business: manufacture of dental  
equipment and furniture

Taxpayer ID: 93-0555952

The applicant's address is:

2601 Crestview Drive  
Newberg, OR 97132

### *Technical Information*

The applicant installed a closed loop system to treat rinse-waters from yellow chromate conversion coating and zinc phosphate immersion processes for aluminum and steel alloys. The claimed system pumps rinse-waters through the ion exchange where metal ions are removed from the solution using cation and anion resin exchange media. Deionized water is returned to the yellow chromate and zinc phosphate lines for use as rinse water; components used in this return process were not claimed as part of the pollution control facility. A reverse exchange process flushes the metal ions to collection tanks as the ion-exchange media becomes loaded. These supernatant liquids from the collection tanks are then combined, the chromium is converted from hexavalent to trivalent, then the dissolved solids are precipitated out of the solution and the solution is pH adjusted. The solution (sludge) is pumped through a filter press where the solids are filtered and placed in a drum for removal by a hazardous waste disposal company.

### *Eligibility*

### *Facility Identification*

The certificate will identify the facility as:

A wastewater treatment system that  
includes an ion-exchange system and a  
gas-fired evaporator.

The applicant is the owner and operator of the  
facility located at:

2207 Crestview Drive  
Newberg, OR 97132

- ORS 468.155 (1)(a)(A) The sole purpose of the new wastewater treatment system is to control water pollution.
- ORS 468.155 (1)(b)(A) The system controls a substantial quantity of industrial waste with the use of a treatment works as defined in ORS 468B.005.
- ORS 468.155 (3)(e) The claimed facility does not replace a previously certified pollution control facility.
- ORS 315.304 The maximum tax credit available to the applicant is 50% because construction commenced prior to January 1, 2001 and it was completed prior to January 1, 2004.
- OAR 340-016-0008

### ***Timeliness of Application***

The application was submitted within the two-year filing requirement of the 1999 edition of ORS 468.165 (6). The application was filed before the effective date of the 2001 edition of ORS 468.165 (6).

<i>Construction Started</i>	2/01/1999
<i>Construction Completed</i>	12/1/1999
<i>Facility Placed into Operation</i>	12/1/1999
<i>Application Received</i>	9/24/2001

### ***Facility Cost***

Claimed Cost	\$197,663.00
Eligible Cost	\$197,663.00

Copies of invoices substantiated the claimed facility cost. KPMG LLP provided the independent accountant's statement on behalf of the applicant.

### ***Facility Cost Allocable to Pollution Control***

The following factors were used to determine that 100% of the facility cost is allocable to pollution control.

<u>Factor</u>	<u>Applied to This Facility</u>
ORS 468.190(1)(a) Salable or Usable Commodity	The claimed facility does not produce a saleable or useable product.
ORS 468.190(1)(b) Return on Investment	The useful life of the facility used for the return on investment consideration is 15 years. No gross annual revenues were associated with this facility.
ORS 468.190(1)(c) Alternative Methods	The applicant did not consider an alternative method.
ORS 468.190(1)(d) Savings or Increase in Costs	No substantive savings or increases in costs were identified.
ORS 468.190(1)(e) Other Relevant Factors	No other relevant factors.

### ***Compliance and Other Tax Credits***

The applicant states that the facility is in compliance with Department rules and statutes and with EQC orders. No permits have been issued to this applicant at this site.

Reviewers: Maggie Vandehey



State of Oregon  
Department of  
Environmental  
Quality

Directors	
Recommendation:	<b>Approve</b>
Applicant	<b>Portland General Electric</b>
Application No.	<b>6037</b>
Facility Cost	<b>\$59,253.00</b>
Percentage Allocable	<b>100%</b>
Maximum Tax Credit	<b>50%</b>
Useful Life	<b>10</b>

## Tax Credit Review Report

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### **Pollution Control Facility: Water**

#### **Final Certification**

ORS 468.150 -- 468.190

OAR 340-016-0005 -- 340-016-0080

#### ***Applicant Identification***

Organized As: **C Corp**

Business: **Provides electrical power  
source**

Taxpayer ID: **93-0256820**

The applicant's address is:

**121 SW Salmon Street  
Portland, OR 97204**

#### ***Facility Identification***

The certificate will identify the facility as:

#### **Oil containment system**

The applicant is the owner and operator of the facility located at:

**Leland Substation  
21665 S Molalla Avenue  
Oregon City, OR 97045**

#### ***Technical Information***

The applicant installed an oil containment system installed at Leland Station. The containment system includes a membrane liner covering the ground around the transformer that is sealed to the transformer's concrete foundation. The liner is sandwiched between two layers of geo-fabric to protect it from punctures. Drain piping and drain rocks installed over the liner direct any spilled oil into a containment pit and then to a draitrench. Without the facility there was a potential for approximately 6,521 gallons of transformer oil to drain into the Cahill Creek in the event of a spill.

#### ***Eligibility***

ORS 468.155 (1)(a)(A) The **sole purpose** of the new equipment is to **prevent** a substantial quantity of water pollution.

ORS 468.155 (1)(b)(A) The prevention of industrial wastewater is accomplished with **the oil containment system** that meet the definition in ORS 468B.005 of an industrial water treatment works.

ORS 468.155 (3)(e) The claimed facility did not replace a previously certified facility.

ORS 315.304 OAR 340-016-0008 The maximum tax credit available to the applicant is **50%** because construction of the facility commenced prior to January 1, 2001.

***Timeliness of Application***

The application was submitted within the two-year filing requirements of 1999 edition of ORS 468.165 (6) and the one-year filing requirement of the 2001 edition.

<i>Construction Started</i>	<b>12/01/2000</b>
<i>Construction Completed</i>	<b>01/26/2001</b>
<i>Facility Placed into Operation</i>	<b>01/26/2001</b>
<i>Application Received</i>	<b>01/24/2002</b>

***Facility Cost***

Claimed Cost	<u>\$59,253.00</u>
Eligible Cost	<b>\$59,253.00</b>

Copies of invoices and a project summary report substantiated the claimed facility cost.

***Facility Cost Allocable to Pollution Control***

The following factors were used to determine that **100%** of the facility cost is allocable to pollution control.

<u>Factor</u>	<u>Applied to This Facility</u>
ORS 468.190(1)(a) Salable or Usable Commodity	No salable or usable commodity.
ORS 468.190(1)(b) Return on Investment	The useful life of the facility used for the return on investment consideration is <b>47</b> years. No gross annual revenues were associated with this facility.
ORS 468.190(1)(c) Alternative Methods	No alternative investigated.
ORS 468.190(1)(d) Savings or Increase in Costs	No savings or increases in costs were identified.
ORS 468.190(1)(e) Other Relevant Factors	No other relevant factors.

***Compliance and Other Tax Credits***

The applicant states that the facility is in compliance with Department rules and statutes and with EQC orders.

Reviewers: Maggie Vandehey, DEQ



State of Oregon  
Department of  
Environmental  
Quality

Director's  
Recommendation: **APPROVE - Reduced Cost**

Applicant	<b>Dravon Medical, Inc.</b>
Application No.	<b>5596</b>
Facility Cost	<b>\$217,111</b>
Percentage Allocable	<b>100%</b>
Maximum Tax Credit	<b>50%</b>
Useful Life	<b>5 years</b>

## Tax Credit Review Report

EQC 0602

### **Pollution Control Facility: Air**

#### **Final Certification**

ORS 468.150 -- 468.190

OAR 340-016-0005 -- 340-016-0080

#### ***Applicant Identification***

Organized as: **C Corporation**

Business: **Sterilization of medical devices**

Taxpayer ID: **93-1020493**

The applicant's address is:

**11465 S.E. Highway 212  
Clackamas, Oregon 97015**

#### ***Facility Identification***

The applicant claimed:

**Donaldson ETO-Abator, Model 2000 SCFM,  
Dekker Vacuum Technologies  
Model VMX0200DA1-25 oil lubricated  
vacuum pump.**

The applicant is the owner of the facility located at:

**11465 S.E. Highway 212  
Clackamas, Oregon 97015**

#### ***Technical Information***

The claimed facility is a catalytic thermal oxidizer that converts ethylene oxide, a hazardous air pollutant, into carbon dioxide and water. The applicant included a vacuum and other components that were required for the catalytic thermal oxidizer to function properly. The equipment is sized to handle 1,500 actual cubic feet per minute of air and an ethylene oxide flow of 0.5 pounds per minute. It is designed to control 99.9% of the ethylene oxide emission from the medical equipment sterilizer. Each year approximately 5,000 pounds of ethylene oxide gas would have been released in the environment without the catalytic abator.



**Eligibility**

- ORS 468.155 (1)(a)(A) The **principal purpose** of the new equipment is to comply with the applicant's Air Contaminant Discharge Permit No. 03-0030 issued on July 7, 1999 to control ethylene oxide emissions. No permit was needed for the operation of an ethylene oxide sterilizer prior to December 8, 1998.
- ORS 468.155 (2)(d) Ineligible costs listed below are distinct portions of the pollution control facility that makes an insignificant contribution to to the principal purpose of the facility.
- OAR 340-016-0060 (2)(a)
- OAR 340-016-0070 (3)
- ORS 468.155 (1)(b)(B) The air cleaning device eliminates air contaminants as definition in ORS 468A.005.
- OAR 340-016-0060 (3)(k) **Replacement:** The new catalytic thermal oxidizer is not a replacement of a previously certified facility.
- ORS 315.304 The maximum tax credit available to the applicant is **50%** because the
- ORS 468.173(1) construction of the facility commenced prior to January 1, 2002.

**Timeliness of Application**

The application was submitted within the timing requirements of the 1999 edition of ORS 468.165 (6).

<i>Construction Started</i>	<b>01/25/1999</b>
<i>Construction Completed</i>	<b>07/26/1999</b>
<i>Placed into Operation</i>	<b>07/26/1999</b>
<i>Application Received</i>	<b>07/18/2001</b>

**Facility Cost**

Claimed Cost		\$253,512.00
Eligible Cost Identified in Review - concrete pad		\$2,739.00
Ineligible Costs		
Prepare DEQ report & operating permit	\$ 9,106.50	
System check out, start-up, training, and travel	23,594.00	
Maintenance, operation, or repair	2,439.50	
Source testing	2,900.00	
Fence	1,100.00	
	Subtotal	\$ 39,140.00
		<u>-\$ 39,140.00</u>
	<b>Eligible Cost</b>	<b>\$217,111.00</b>

Invoices and canceled checks substantiated the cost of the facility.

***Facility Cost Allocable to Pollution Control***

The following factors were used to determine that **100%** of the facility cost is allocable to pollution control.

<b>Factor</b>	<b>Applied to This Facility</b>
ORS 468.190(1)(a) Salable or Usable Commodity	No usable or salable commodity.
ORS 468.190(1)(b) Return on Investment (ROI)	The useful life of the facility used for the ROI consideration is 5 years. No gross annual revenues were associated with this facility.
ORS 468.190(1)(c) Alternative Methods	No alternative methods were considered.
ORS 468.190(1)(d) Savings or Increase in Costs	No savings or increase in costs was identified.
ORS 468.190(1)(e) Other Relevant Factors	No other relevant factors.

***Compliance and Other Tax Credits***

The applicant states the facility is in compliance with Department rules and statutes and with EQC orders. DEQ issued Air Contamination Discharge Permit Number 03-0030 on July 7, 1999. No other tax credits have been issued to the applicant.

Reviewer: Gordon Chun, P.E., SJO Consulting Engineers  
Dennis Cartier, Associate, SJO Consulting Engineers  
Maggie Vandehey, DEQ

State of Oregon  
Department of Environmental Quality

Memorandum

**Date:** May 20, 2002  
**To:** Environmental Quality Commission  
**From:** Stephanie Hallock, Director *S. Hallock*  
**Subject:** Agenda Item D, Action Item: Decision on Modification of the Umatilla Chemical Disposal Facility (UMCDF) Hazardous Waste Permit to Add Permitted Storage in J-Block  
June 6-7, 2002 EQC Meeting

**Department Recommendation** The Department recommends that the Commission approve Permit Modification No. UMCDF-00-004-WAST(3) to modify the Umatilla Chemical Agent Disposal Facility (UMCDF) Hazardous Waste Storage and Treatment Permit (HW Permit) (Permit No. ORQ 000 009 431) as shown in Attachment A to this staff report.

The Permit Modification adds 58 J-Block storage igloos to the UMCDF HW Permit for use as permitted storage for containerized liquid and solid hazardous wastes generated during demilitarization operations. The proposed modification adds two new definitions to Module I ("Standard Permit Conditions") to recognize classification of wastes with "higher" or "lower" levels of agent contamination and to allow imposition of more stringent management standards for those wastes with higher levels of contamination. It also adds seven new Permit Conditions to Module III of the HW Permit ("Container Storage") defining specific requirements for segregation and management of wastes stored in J-Block, three of which specify the more stringent requirements applicable to wastes with higher agent contamination.

At the request of Morrow County, the Department is also proposing to modify the Introduction to the UMCDF HW Permit to recognize the responsibility of the UMCDF Permittees to comply with applicable local laws.

**Background** On February 29, 2000 the United States Army's Project Manager for Chemical Stockpile Disposal (PMCS D) submitted a Class 3 Permit Modification Request (PMR) UMCDF-00-004-WAST(3) "Permitted Storage in J-Block." Class 3 PMRs must undergo a 60-day public comment process before the Department prepares final draft permit language for further public comment. The initial public comment period on this PMR was held from February 29, 2000 through May 1, 2000.

After review of the PMR and the three written comments received during the initial public comment period, the Department prepared draft revisions to the UMCDF HW Permit and HW Permit Application. In accordance with Resource and Conservation Act (RCRA) regulations, the draft revisions were then issued for an additional 45-day public comment period (held from February 22 through April 9, 2002). The history of the original PMR public comment and review process is documented in a Fact Sheet issued by the Department on February 22, 2002 (included here as Attachment B, without attachments).

A public hearing was held on March 27, 2002 in Hermiston, Oregon. One set of verbal comments was received at the public hearing and two sets of written comments were received during the second comment period. The Department's response to all comments received during both public comment periods is included as Attachment C.

During the initial comment period the Department received written comments from Dr. Rod Skeen, representing the Confederated Tribes of the Umatilla Indian Reservation (CTUIR); Mr. Richard Condit, representing the "Oregon Wildlife Federation, GASP, Karyn Jones, Susan Jones, Deborah McCoy-Burns, and a number of other individuals..."; and Ms. Tamra J. Mabbott, Planning Director, representing Morrow County. During the second comment period the Department received written comments from the UMCDF Permittees and from the CTUIR (Dr. Skeen also provided oral comment during the public hearing held on March 27, 2002).

Concerns expressed during the initial comment period included the types and quantities of wastes to be stored, the level of environmental risk, the conditions of storage necessary to minimize increased environmental or health risk, and the time periods over which storage would be provided. The Department addressed many of the issues identified during the first comment period by expanding the waste management requirements, specifying monitoring and inspection requirements, and making other changes in the modification as originally proposed by the UMCDF Permittees.

The concerns raised during the second comment period were more limited in scope, but have resulted in several additional clarifications and a number of editorial corrections. The key issues identified by public comments are

discussed below. (See also Attachment C for the Department's specific response to each comment received.)

**Key Issues**

- 1. The need for additional permitted hazardous waste storage areas, and the amount of storage capacity being permitted, indicates that the original UMCDF HW Permit failed to anticipate the amount of secondary processing waste that would be generated during UMCDF operations.*

All three comments received during the initial comment period expressed concern about the need for storage and the proposed storage capacity. The need for longer-term storage of secondary wastes is not a new development and it has always been understood that sizeable quantities of secondary wastes would be produced during operation of the demilitarization processes. Provisions for such storage were not made in the HW Permit because it was anticipated that the secondary wastes would be transferred back to the K-block igloos for storage and management by the Umatilla Chemical Depot (UMCD).

Significant problems associated with the repeated custody transfers of wastes between UMCD and UMCDF, and other associated waste tracking and characterization issues, became apparent during review of the UMCD RCRA Part B Storage Permit Application. The U.S. Army subsequently decided that UMCDF should retain full responsibility for secondary wastes by operating the required storage facilities. UMCDF submitted the PMR for permitted storage in J-Block to add the permitted storage capacity to fulfill that responsibility.

The requested number of storage units is based on current projections of waste management needs. Because of requirements for segregation of stored wastes by type and level of agent contamination, process source, and other factors that preclude full utilization of available capacity, the total proposed capacity is intentionally conservative. Agent-contaminated wastes must undergo further thermal treatment. Consequently, storage duration is dependent on when thermal treatment can be scheduled and will vary by type of waste and the thermal treatment to be provided.

The proposed storage also provides needed flexibility for process operations by allowing storage of wastes destined for off-site disposal if transport cannot be effected within the 90-day storage limit applicable to the other storage areas in which these wastes are normally managed.

2. *Umatilla Chemical Depot J-Block igloos are inadequate structures for the storage of chemical agent-contaminated wastes.*

This concern was raised by all three Commenters during the initial comment period. The review of this PMR involved substantive consideration of the nature of the wastes and the adequacy and appropriateness of the proposed facilities and facility operations. The modifications to the HW Permit proposed here (see Attachment A) impose stringent requirements for modifying J-Block igloos (plugging drains and closing vents, for example) that will store "higher level" wastes. The Department has also required stringent monitoring requirements to supplement the weekly inspections required for all J-Block igloos. The Department believes that conditions imposed for operation of J-Block as a permitted hazardous waste storage area provide the basis for safe and environmentally protective storage.

3. *The storage of chemical agent-contaminated wastes poses a risk to human health and the environment.*

There was an apparent misunderstanding by commenters that the wastes to be stored in J-Block could include neat chemical agent. In fact, the PMR did not seek authorization for the storage of neat agent in the proposed J-Block permitted storage. The U.S. Army has confirmed that chemical surety requirements applicable to both UMCD and UMCDF would not allow the storage of neat agent in J-Block. To further ensure clarity, changes to explicitly exclude neat agent from J-Block storage were incorporated in the proposed modifications issued by the Department. As noted in the responses to comments in Attachment C, the materials being handled within the UMCDF Munitions Demilitarization Building (MDB) and the J-Block igloos are very different. UMCDF will be handling munitions and bulk containers of chemical agent. J-Block igloos will handle only containerized process wastes, most containing very limited concentrations of agent contamination.

Commenters also expressed concern about the risk associated with spillage during handling and transport of liquid wastes. The agent-contaminated liquid waste with the greatest potential need for transport and storage is spent decontamination solution (SDS). SDS will be fed into the secondary combustion chambers of the Liquid Incinerators and could need storage if the quantity generated exceeds the capacity for in-plant storage in the SDS tanks. The UMCDF HW Permit requires that SDS be decontaminated to below 20

parts per billion (ppb) of GB or VX agent, and below 200 ppb of mustard agent (these levels are based on the Army's drinking water standards for soldiers).

All liquid wastes, including SDS, would be containerized prior to storage and will be stored on spill control pallets. Although handling and transportation activities can represent opportunities for increased risks of unplanned releases, those risks can be effectively controlled by employment of well-trained, experienced personnel using safe and effective standardized procedures under qualified supervision.

The HW Permit modifications proposed by the Department are more extensive and stringent than those proposed by the Permittees in the original PMR. Numerous revisions have been made to the original PMR as a result of extensive review and in response to public comments. The most significant additions include more waste segregation requirements and more stringent storage requirements pertaining to wastes with higher levels of agent contamination (see Issue # 4 below). The Department considers permitted storage in J-Block to be acceptable and appropriate under the control, containment, monitoring, inspection and other measures contained in the proposed Permit Conditions and associated modifications.

*4. There is no limitation on agent contamination level and no provision for more stringent management requirements.*

Both CTUIR and Morrow County expressed this concern during the initial comment period. As originally submitted, the PMR did not distinguish between wastes with different agent contamination levels and did not apply higher management standards to wastes with greater agent content. Placing undue limitations on the types or concentrations of waste allowed in J-Block could impose arbitrary or unrealistic constraints on UMCDF waste management functions. The Department believes that a wider range of waste storage can be accommodated if the wastes are segregated by appropriate distinctions in contaminant type, process origin, or ultimate disposition, and if more stringent control and monitoring requirements are imposed on those wastes with higher levels of agent contamination.

The proposed modification adds specific definitions to distinguish between two contamination levels. The definitions added in Permit Module I incorporate the methods and procedures used by the US Army to distinguish

1X waste ("Higher Level Waste," as defined in Module I) from 3X waste ("Lower Level Waste," as defined in Module I) having substantially less contamination. These procedures rely on measurement of the agent concentration in the headspace air above the waste as the basis for making the determinations. "Higher Level Wastes" are wastes with headspace air agent concentration levels that exceed the allowed worker exposure levels established by the Centers for Disease Control (measured as an eight-hour time weighted average). "Lower Level Wastes" are those in which headspace air measurements do not exceed the allowed exposure levels.

"Higher Level Waste" must be managed under the substantially more stringent conditions and requirements indicated in Permit Conditions III.B.10, III.B.11., and III.B.12. (see Attachment A). Those requirements include waste segregation, improvements to sealing around vents and doors of the igloos, installation of drain plugs, operation with closed vents, and monitoring of the interior air space weekly and/or prior to any entry.

5. *Existing storage areas are limited to 90-day storage, but there is no apparent limitation in storage duration in J-Block.*

This concern was expressed by Morrow County and reflects the fact that J-Block will be used to store wastes for periods longer than 90 days. With regard to storage duration, the wastes that could be stored in J-Block fall into two groups. Storage time for non-agent-contaminated hazardous wastes generated from activities of UMCDF that do not involve agent operations (referred to as "non-process" wastes) cannot exceed one year. The one-year limitation also applies to any residues of thermal processing (such as ash) stored in J-Block pending final disposal.

There is no defined time limit for storage of agent-contaminated wastes that require further thermal treatment. The highest priority for use of the incinerator systems is the processing of munitions and liquid agent. These same incinerator systems will be used to provide thermal treatment of the stored wastes. Accordingly, the storage times are dependent on when thermal treatment can be scheduled and will vary by type of waste and the thermal treatment to be provided. The lack of a storage time limit allows the necessary flexibility to schedule and complete thermal treatment.



For some wastes (such as filter carbon) thermal treatment may not be possible until all munitions processing is complete and the closure process is initiated. After processing is completed the facilities must be closed in accordance with an approved Closure Plan, which places a finite limit on storage duration. Removal of all wastes is one of many legally enforceable requirements of the RCRA closure process for all solid waste management units, including the storage units.

*6. The Closure Plan in the proposed Permit Modification is inadequate.*

The revised text of proposed changes to Section I (Closure Plan) of the UMCDF HW Permit Application incorporate the J-Block igloos and the previously approved permitted storage in the MDB into the closure process. Although the revised text addresses in limited detail some of the weaknesses identified by CTUIR and Morrow County, the Department agrees that substantial additional revision will be required to provide the necessary and adequate level of detail needed during closure. Such revision, however, can be more accurately and effectively done nearer the time of commencement of closure activities, when the scope of required activities can be better assessed.

HW Permit Condition II.J.1. requires the Permittee to submit an amended Closure Plan to the Department for review and approval at least 180 days prior to initiation of closure activities. Because amendment of the Closure Plan will involve substantial changes to the Permit documents, it will require a major PMR and there will be opportunity for public comment at the time those changes are developed.

*7. The Permittees should be required to comply with the Morrow County "Toxic Waste Ordinance."*

Morrow County requested that the Department include a Permit Condition requiring payment of fees assessed by the County pursuant to the "Morrow County Toxic Waste Ordinance." Upon consultation with the Department of Justice the Department has determined it does not have authority to require the federal government to pay fees to Morrow County or any other local entity.

This issue has been raised numerous times in the past (see Attachment D for an index of documents related to payment of impact fees). Although the

Department cannot specifically require the payment of fees, the Department is recommending revising the language in the "Introduction" section of the HW Permit to recognize the Permittees' obligation to comply with laws of agencies that have jurisdiction over UMCDF. The Department is proposing the following modification to the language in the Introduction section (Page vi of ix) of the HW Permit.

"The Permittee must comply with all terms and conditions set forth in this Permit and in Attachments 1 through 6. ~~The Permittee must~~ Issuance of this Permit does not relieve the Permittee from the responsibility to comply with all applicable state or local laws and regulations, including OAR 340 Divisions 100-120, and the rules of the Public Utility Commissioner, the Workers' Compensation Department, State Health Division, and other state agencies having jurisdiction over the Facility."

8. *Operation of the "higher level waste" igloos with closed vents might result in poor storage conditions.*

This comment was made by CTUIR during the second comment period. The igloos are designed for operation with open vents to allow slow ventilation and air exchange. The Army and the Department recognize that operation of the igloos with closed vents could cause detrimental changes in interior temperatures or humidity levels. UMCDF has been monitoring and comparing the interior conditions in igloos operated with both open and closed vents since about June 2001. That on-going monitoring activity will provide baseline information necessary to better understand and identify any significant effects.

Although the Department has not yet received a formal report of the monitoring comparisons, informal feedback indicates that the differences noted to date do not suggest that operation with closed vents at UMCDF is problematic. It is important to note that the J-Block igloos operated with closed vents will also be subject to weekly entry for inspection and any substantial deterioration in storage conditions will be observable. If closed-vent operation does cause problems, then the problems will have to be addressed by appropriate changes either in operational procedures or by improvements in control equipment.

*9. Other concerns raised by comments received during the second comment period.*

CTUIR and the Permittees suggested a number of editorial changes to the proposed modifications. The Department incorporated some changes when appropriate (see Attachment C). The Permittees pointed out that the Department failed to incorporate changes to Section F of the HW Permit Application that were included in the original PMR. The changes were related to Contingency Plan and Inspection Plan issues that had in large part been superceded by two Permit Modifications previously approved by the Department. The Department has restored the proposed modifications to Section F that were not actually superceded by the previous modification.

The Permittees also correctly noted that air monitoring of container exteriors to detect agent vapor applies only to those containing agent-contaminated wastes. The wording of the applicable section has been clarified. The Permittees were unclear as to the Department's intentions regarding igloo interior air monitoring (as required by proposed Permit Conditions III.B.11.iii.) and the need for the sampling port required by Permit Condition III.B.10.vi. and the sequencing of activities related to air monitoring in the rear vent stack (Permit Condition III.B.12.i and ii.) The Department has revised the Conditions accordingly to remove any ambiguity.

**EQC Action  
Alternatives**

Alternatives for action by the EQC include the following:

*1. Approve the proposed modifications to the HW Permit and HW Permit Application as presented in Attachment A.*

This alternative provides UMCDF the permitted hazardous waste storage capacity needed to manage secondary process wastes under UMCDF's HW Permit. The modifications proposed in Attachment A incorporate revisions to clarify wording, correct minor errors, and to respond to public comments received since the initial public comment period on the original Permit Modification Request.

2. *Approve the proposed modifications as originally issued by the Department on February 22, 2002.*

This alternative also provides UMCDF the permitted hazardous waste storage capacity needed to manage secondary process wastes under UMCDF's HW Permit, but without the clarifications and revisions mentioned in Alternative #1. Although approval of the draft modification as issued in February could be considered, there does not appear to be an advantage to this alternative. Textual changes to incorporate the clarification of two of the Module III Permit Conditions and corrections to several sections of the Permit Application would have to be made through subsequent Permit Modification Requests.

3. *Deny the Permit Modification Request.*

This alternative would preclude the transfer of J-Block igloos from UMCD to UMCDF control for management of secondary waste storage. Permitted storage can be provided either by UMCDF, as proposed, or by transfer of the wastes to UMCD, as originally assumed at the time the HW Permit was issued. Declining to approve the proposed modifications will necessitate re-inclusion of permitted storage for these wastes in the UMCD Part B Storage Permit Application currently under review by the Department.

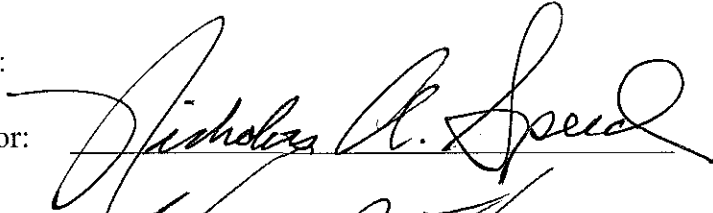
<b>Attachments</b>	Attachment A	Change Pages for Permit Modification No. UMCDF-00-0004-WAST(3) "Permitted Storage in J-Block"
	Attachment B	Fact Sheet issued by Department on February 22, 2002 (without original attachments)
	Attachment C	Response to Comments
	Attachment D	Index of Documents Related to Assessment of Toxic Waste Storage Fees by Morrow County
	Attachment E	Index of Documents Related to Permit Modification No. UMCDF-00-0004-WAST(3) "Permitted Storage in J-Block"

Agenda Item D, Action Item: Modification of the UMCDF  
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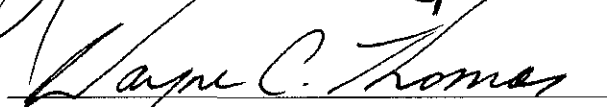
**Available Upon Request**     The documents listed in Attachments D and E are available upon request.

Approved:

Author:



Program:



Wayne C. Thomas, Administrator  
Chemical Demilitarization Program

Division: Office of the Director

Report Prepared By: Nick Speed, Sr. Hazardous Waste Specialist  
Phone: (541) 567-8297, ext. 29

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# ATTACHMENT A

## *Change Pages*

Proposed Modification of the  
Hazardous Waste Storage and Treatment Permit and Permit  
Application for the Umatilla Chemical Agent Disposal Facility

Permit Modification No. UMCDF-00-0004-WAST(3)  
“Permitted Storage in J-Block”

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**ATTACHMENT A**  
**Change Pages for Permit Modification No. UMCDF-00-004-WAST(3)**  
**“Permitted Storage in J-Block”**

This PMR resulted in substantial changes in the UMCDF HW Permit and numerous changes in several sections of the UMCDF HW Permit Application. Pages containing changes are included here, as indicated in the table below.

In addition, the original J-Block Storage PMR proposed the inclusion within the Permit Application of Section D-10 (“Air Emission Standards”). Section D-10 is not included here because the entire section has been superceded by Permit Modification Request UMCDF-00-022-MISC(3), “Incorporation of 40 CFR 264 Air Emission Standards,” currently under joint review by the Department and EPA. Revisions to Permit Application Section G (as originally proposed) are also not included here because those proposed revisions have been superceded by PMR UMCDF-01-010-CONT(2) “Revision of Section G, Contingency Plan,” approved by the Department on December 31, 2001.

## INDEX TO CHANGE PAGES

Text proposed for addition is shaded.

Text proposed for deletion is struck-out.

Section	Change Page Nos.	Attachment Page No. and Comments (if applicable)
<b>Index to Change Pages</b>	N/A	A-2 through A-4
<b>Changes to HW Permit</b>		A-5 through A-20
Preface (“Introduction”)	vi of ix	New text recognizing Permittees obligation to comply with applicable requirements of local government.
Module I	5 of 25 and 6 of 25	New definitions added for “Higher Level Waste” and “Lower Level Waste.”
Module III	1 of 19, 2 of 19, 8 of 19, 9 of 19, 10 of 19, 12 of 19, 13 of 19, 14 of 19, 15 of 19	Addition of seven new Permit Conditions III.B.6. through III.B.12. providing for the management of J-Block waste storage igloos, including waste segregation, engineering control, and monitoring requirements. Other related changes indicating the added storage facilities and requirements.
Permit Attachment 1 (“Part A Application”)	1 of 7, 4 of 7, 7B of 7	Cover Page and two pages with changes indicating the additional storage capacity.
<b>Changes to HW Permit Application</b>		A-21 through A-145
<b>Application Section B (“Facility Description”)</b>		A-21 through A-53
B-1 (“General Description”)	B-1-1 through B-1-6, Figures B-1-1, B-1-2	Page B-1-3 does not actually contain any changes but is included here for continuity.
B-2 (“Topographic Map Requirement”)	B-2-1 through B-2-4; Sheet 2 of Drawing B-2-1 (Topographic Map); and Sheet 2 of Drawing B-2-2 (Site Plan)	(None)

<b>Section</b>	<b>Change Page Nos.</b>	<b>Attachment Page No. and Comments (if applicable)</b>
B-3 ("Location Information")	B-3-1 through B-3-2	(None)
B-4 ("Traffic Patterns")	B-4-1 through B-4-3; Figures B-4-1 through B-4-12; and Table B-4-1	(None)
<b>Application Section C ("Waste Characteristics")</b>		<b>A-54 through A-65</b>
Attachment C-1 ("Chemical and Physical Analyses of Wastes")	C-1a-4 through C-1a-5	(None)
Attachment C-4 (Excerpts from Army regulations and standards for management of chemical agent material)	C-4-1, C-4-3, C-4-5, C-4-6, C-4-7 and C-4-9	(None)
<b>Application Section D ("General Process Information")</b>		<b>A-66 through A-97</b>
D-1 ("Process Description")	D-1a-1 through D-1a-2; D-1c-6 through D-1c-7; Tables D-1-12 and D-1-14; Figure D-1-1; Figure D-1-2 (Sheets 1, 2, and 3);	Page D1a-1 does not actually contain any changes but is included here for continuity.
D-3a ("Containers with Free Liquids and/or F020, F021, F022, F023, F026, and F027 Wastes")	D-3a-1 through D-3a-15	Pages D-3a-3, D-3a-4, D-3a-8, D-3a-13 do not actually contain any changes but are included here for continuity
D-3b ("Containers without Free Liquids or F020, F021, F022, F023, F026, and F027 Wastes")	D-3b-1 through D-3b-6	Page D-3b-3 does not actually contain any changes but is included here for continuity
<b>Application Section F ("Procedures to Prevent Hazards")</b>		<b>A-98 through A-123</b>
Section F ("Procedures to Prevent Hazards")	F-1 and F-1-1 through F-1-5	(None)
Section F-2 ("Inspection Schedule")	F-2a-1	(None)
Section F-3 ("waiver or Documentation of Preparedness and Prevention Requirements")	F-3-1 through F-3-3 Table F-3-2 (2 pages)	(None)
Section F-4 ("Preventive Procedures, Structures, and Equipment")	F-4-1 through F-4-6	Pages F-4-3 and F-4-5 do not actually contain any changes but are included here for continuity
Section F-5 ("Prevention of Reaction of Ignitable, Reactive, or Incompatible Wastes")	F-5a-2, F-5b-1, F-5b-2	(None)

Section	Change Page Nos.	Attachment Page No. and Comments (if applicable)
Attachment F-1 ("Chemical Agent Monitoring Devices")	Attachments F-1-7 through F-1-9 and Attachment F-1-12	(None)
<b>Application Section I ("Closure Plans, Post-Closure Plans, and Financial Requirements")</b>		<b>A-124 through A-145</b>
Section I-1 ("Closure Plan")	I-1a-1 through I-1a-5, I-1b-1, I-1c-1 through I-1c-3, I-1c-6 and I-1c-7, I-1d-1, I-1d-3, I-1d-6, I-1e-1, I-1e-3, I-1e-5, I-1e-11, I-1f-1, I-1g-2, I-1g-3	(None)
Attachment I-2 ("Protective Clothing Requirements by Area and Function")	Attachment I-2-4	(None)

## INTRODUCTION

Permittee: U.S. Army Umatilla Chemical Depot

Environmental Protection Agency Identification Number: ORQ 000 009 431

The Permittee shall proceed expeditiously in procuring a contractor, beginning construction and commencing operation of the Umatilla Chemical Agent Disposal Facility (UMCDF) in order to eliminate the significant risk to human health and the environment posed by the continued storage of the chemical weapons and chemical agents at the Umatilla Chemical Storage Depot.

Pursuant to Oregon Revised Statutes Chapter 466 and the hazardous waste regulations promulgated thereunder by the Oregon Environmental Quality Commission in Chapter 340 of the Oregon Administrative Rules (OAR), this Permit is issued to the U.S. Army Umatilla Chemical Depot (Permittee, Owner and Operator), the Project Manager for Chemical Stockpile Disposal (Permittee, Owner and Operator), and the Washington Demilitarization Company (Co-Permittee and Co-Operator) to operate a hazardous waste treatment and storage chemical demilitarization facility located in Umatilla County in Hermiston, Oregon, off Interstate Hwy-84 at exit 177 at latitude 45° 50' 30" and longitude 119° 26' 00". A map depicting the Umatilla Chemical Depot Site Plan is shown in FIGURE 1 on page 5 of Module VIII of this Permit.

For purposes of clarification, the designations Co-Permittee and Co-Operator hereinafter will be referred to as Permittee, and Operator, respectively. The use of Co-Permittee as Permittee and Co-Operator as Operator shall not change legal obligations and/or responsibilities.

The Permittee must comply with all terms and conditions set forth in this Permit and in Attachments 1 through 6. ~~Issuance of this Permit does not relieve the Permittee from the responsibility to. The Permittee must comply with all applicable state or local laws and regulations, including OAR 340 Divisions 100-120, and the rules of the Public Utility Commissioner, the Workers' Compensation Department, State Health Division, and other state agencies having jurisdiction over the Facility.~~

In some cases, within the Attachments of this Permit, the Permittee has included references to exhibits or other attachments which are not physically contained in this Permit. In such cases, the Permittee must still

(GFE) equipment that will be delivered to UMCDF as a pre-fabricated assembly.

“Hazardous waste” This term shall mean substances that meet the definition of hazardous waste found in ORS 466.005(7), 40 CFR Part 261, and OAR 340-101.

“Hazardous constituent” This term shall mean those substances listed in OAR 340-101 and 40 CFR Part 261 Appendix VIII and including hazardous constituents released from solid waste, hazardous waste, and hazardous waste constituents that are reaction by-products.

“Heel” This term shall mean the amount, by weight, of residue remaining in a munition or container after the munition or container has undergone the chemical agent draining process.

**Higher Level Waste**

Agent-related process wastes stored in J-Block pending further processing at UMCDF are designated as having either a “higher level” or a “lower level” of agent contamination. Designation of a waste as a “higher level waste” indicates the containerized waste has been partially decontaminated of chemical agent as specifically described in the 31 March 1997 revision of DA PAM 385-61 (Attachment C-4 of the Hazardous Waste Permit Application) and that chemical agent concentrations, as measured in the headspace air, exceed:

Agent	Concentration
GB	0.0001 mg/m <sup>3</sup>
VX	0.00001 mg/m <sup>3</sup>
HD	0.003 mg/m <sup>3</sup>

“Hourly rolling average” This term shall mean the arithmetic mean of the 60 most recent one-minute readings recorded.

“Inspector” This term shall mean the designated representative of the “Manager”

delegated routine UMCDF or UMCD oversight.

“LIC 1 operating day”

This term shall refer to twenty-four (24) hour periods initiated when Liquid Incinerator (LIC) 1 began thermal operation, and for which operation occurred for any length of time for LIC 1.

“LIC 2 operating day”

This term shall refer to twenty-four (24) hour periods initiated when LIC 2 began thermal operation, and for which operation occurred for any length of time for LIC 2.

**“Lower Level Waste”**

Agent-related process wastes stored in 1-Block pending further processing at UMCDF are designated as having either a “higher level” or a “lower level” of agent contamination. Designation of a waste as a “lower level waste” indicates the containerized waste has been surface decontaminated of chemical agent as specifically described in the 31 March 1997 revision of DA PAM 385-61 (Attachment C-4 of the Hazardous Waste Permit Application) and that chemical agent concentrations, as measured in the headspace air, do not exceed:

<b>Agent</b>	<b>Concentration</b>
<b>GB</b>	<b>0.0001 mg/m<sup>3</sup></b>
<b>VX</b>	<b>0.00001 mg/m<sup>3</sup></b>
<b>HD</b>	<b>0.003 mg/m<sup>3</sup></b>

“Manager”

This term shall mean the Department of Environmental Quality’s (DEQ’s) Chemical Demilitarization Program Administrator.

“MPF operating day”

This term shall refer to twenty-four (24) hour periods initiated when the Metal Parts Furnace (MPF) began thermal operation, and for which operation occurred for any length of time for the MPF.

## MODULE III - CONTAINER STORAGE

The UMCDF site shall be permitted for two container storage areas within the Container Handling Building. The first area is divided into two parts and is designated as the East and West Storage Areas on the first floor of the Container Handling Building (Figure 3-1 of the Permit). The second permitted area within the Container Handling Building is the second floor Unpack Area. This area is permitted under 40 CFR 264.1100 as part of a containment building. The UMCDF has also permitted the following portions of the Munitions Demilitarization Building under 40 CFR 264.100: the MDB Unpack Area, the Explosive Containment Vestibule, Explosive Containment Rooms, Upper Buffer Storage Area, Upper Munitions Corridor, the Munitions Processing Bay, the Lower Buffer Storage Area, Lower Munitions Corridor, and the TMA "C" Airlock and Decontamination Area. The Container Handling Building (CHB) and the Munitions Demilitarization Building (MDB) shall be limited to the storage of munitions and various munition components containing chemical agents, explosives, propellants, and bulk containers containing chemical agents (hazardous waste numbers D001, D002, D003, D004, D005, D006, D007, D008, D009, D010, D011, D022, D028, D030, D043, P998, P999). The storage of items in these areas is limited to the various process lines, conveyors, and reject systems; areas in which you would expect to find these items during normal operations. Storage is required in the event these items have been rejected from the demilitarization process and during process upset conditions during which the facility is shut down for extended periods. Storage in the TMA is required to allow adequate time for the processing of leakers transferred from the CHB.

~~An additional container storage area consists of 58 igloos (igloos J-1723 through J-1774 and J-1777 through J-1782) in J-Block used to store secondary wastes.~~

The UMCDF site has initially identified two 90-day storage areas: the Residue Handling Area (RHA) within the Process and Utility Building and the Toxic Maintenance Area (TMA) in the Munitions Demilitarization Building. All containers in the RHA and TMA shall be managed in accordance with the generator requirements of 40 CFR Part 262 and OAR-340-0102 as less than 90-day accumulation areas. ~~Any additional 90-day storage areas will be managed in accordance with the generator requirements of 40 CFR Part 262 and OAR-340-0102 as less than 90-day accumulation areas.~~

In the CHB, munitions (except spray tanks) will be stored in enhanced onsite transport containers (ONCs) which are resistant to leaks due to fires, drops, and collisions; spray tanks will be stored in shipping/overpack.



containers. The permitted container storage areas have conveyor tracks that route the ONCs to the Munitions Demilitarization Building (MDB) for demilitarization processing. Secondary containment for the first floor permitted area of the CHB is provided by the on-site containers and spray tank overpacks. Secondary containment for the second floor permitted storage area is provided by the coated concrete flooring and sump system.

III.A. **BUILDING DESIGN, CONSTRUCTION, AND OPERATION**

III.A.1. The Permittee shall design and construct the CHB and MDB as specified in:

- i. All applicable drawings in Volume V, Attachment D-3 of the Application;
- ii. The applicable specifications found in Volume VI, Attachment D-3 of the Application.

III.A.2. The Permittee shall design and construct secondary containment sump systems as specified in:

- i. All applicable drawings in Volume V, Attachment D-3 of the Application;
- ii. The applicable specifications found in Volume VI, Attachment D-3 of the Application; and
- iii. Table 4-4 of this Permit.

III.A.3. The Permittee shall operate the CHB as specified in Volume II, Sections D-3(a)(2), D-3(a)(3), and D-3(a)(4) of the Application. The Permittee shall operate the MDB and J-Block in accordance with permitted requirements and Volume II, Section D-3, of the Application.

III.B. **PERMITTED AND PROHIBITED WASTE IN THE PERMITTED STORAGE AREAS**

III.B.1. The Permittee shall store only the munitions containing the hazardous wastes listed in Table 3-1 of this Permit in the permitted storage areas within the CHB and MDB in accordance with the terms of this Permit. Chemical munitions will be stored in the permitted storage areas of the CHB only when contained within an ONC, with the exception of spray tanks, which have their own shipping/overpack containers.

munitions or bulk items at locations other than those identified or above the maximum quantity identified.

III.B.6. The Permittee shall store only the hazardous wastes listed in Attachment 2 of this Permit or waste codes listed in Attachment 1 of this Permit in the permitted J-Block igloos in accordance with the terms of this Permit. Munitions or bulk items that have not been treated in the Metal Parts Furnace or Deactivation Furnace System or neat agent shall not be stored in the permitted J-Block igloos.

III.B.7. The Permittee shall not store more than 21,780 gallons of hazardous waste in each J-Block igloo.

III.B.8. Nonprocess waste, as defined in Attachment 2, shall be stored in accordance with 40 CFR 268.50.

III.B.9. The Permittees shall segregate wastes stored in permitted J-Block igloos in accordance with the following requirements:

i. Nonprocess waste, as defined in Attachment 2, shall not be stored in the same J-Block igloos as process waste.

ii. Single-agent-contaminated waste shall be segregated (stored in separate igloos) by chemical agent type.

iii. Multiagent-contaminated wastes shall be stored together and segregated from single-agent-contaminated wastes.

iv. Agent-contaminated process wastes shall be segregated by the degree of contamination in accordance with their designation as either "higher level wastes" or "lower level wastes" (as those terms are defined in Module I).

v. Residues from thermal processing, if stored, shall be segregated from other process wastes and shall be further segregated, as appropriate, by source, type or destination.

III.B.10. Prior to the initial placement of "higher level waste" in a J-Block igloo, the following modifications will be made to each igloo to prevent any potential agent migration:

- i. Drain plugs will be installed. The plugs have been designed to accommodate air sampling lines, so headwall sampling can be accomplished without removing the drain plugs.
- ii. The main entrance door will be sealed with a neoprene gasket.
- iii. The vent closure panel on the entrance door will be sealed with a neoprene gasket.
- iv. The rear stack vent closure panel will be sealed with a neoprene gasket.
- v. The entrance door and rear stack vents will be closed.
- vi. A sampling port will be installed in the rear stack to allow air monitoring within the rear stack immediately downstream of the rear vent closure panel.

III.B.11. The Permittees shall conduct chemical agent monitoring using Real-Time Analytical Platforms (RTAP) for J-Block igloos storing chemical agent-contaminated hazardous waste as follows:

- i. Igloos containing "higher level waste" shall be monitored on a weekly basis and/or prior to any entry.
- ii. Individual igloos containing "higher level waste" shall be monitored for those chemical agents contained in the waste stored therein.
- iii. The interior space air will be monitored down to 0.25 of the 8-hour time-weighted average (TWA) established for each agent.

8-Hour TWA Limit for Chemical Agents

Chemical Agent	(mg/m <sup>3</sup> )
GB	0.0001
YX	0.00001
HD	0.003

III.B.12. If air monitoring indicates the presence of agent in the igloo at or above 0.25 of the 8-hour TWA limits indicated in Permit Condition III.B.11.iii., the following actions will be taken:

- i. Prior to installing the filter (see Item ii below), the air within the rear stack immediately downstream of the rear stack vent will be monitored as indicated in Permit Condition III.B.11 iii to determine if there has been a release of agent to the environment. Detection of agent within the stack and downstream of the closed rear stack vent at or above 0.25 of the 8-hour TWA established for each agent would constitute migration of agent of a reportable quantity (OAR 340-108-0010), and the appropriate notifications would be made in accordance with Permit Condition I.E.
- ii. Prior to opening the igloo, a powered 1000-cfm or M6 filter unit will be placed on the igloo rear stack vent.
- iii. The rear stack vent will be opened and the filter turned on.
- iv. The entrance door vent will be opened.
- v. After monitoring of the interior space air as indicated in Permit Condition III.B.11 iii confirms that the interior air has been adequately cleansed by filter operation, the igloo will be opened for entry and visual inspection and air sampling will be conducted to locate the source of the leak.
- vi. The leaking container will be overpacked.
- vii. After the igloo door is closed and additional interior space air monitoring confirms there is no agent present at or above the levels listed in Permit Condition III.B.11 iii, both igloo vents will be closed again and the filter removed.

### III.C. CONDITION OF ONCS, SPRAY TANK SHIPPING/OVERPACKS, AND CONTAINERS

- III.C.1. If an ONC or spray tank shipping/overpack container holding hazardous waste is not in good condition (e.g., severe rusting, apparent structural defects) or if the ONC, spray tank shipping/overpack, or container begins to leak, the Permittee shall transfer the ONC, spray tank shipping/overpack, or container to the Toxic Maintenance Area (TMA) for immediate unloading of its contents. If agent is detected, the Permittee shall complete decontamination prior to removal of the ONC or spray tank shipping/overpack container from the TMA. All spray tank shipping/overpack containers holding hazardous waste shall be used only once.

the ONC or spray tank shipping/overpack container entered the permitted storage area of the CHB according to Attachment 3 of this Permit and Volume III, Attachment D-2 of the Application. Items stored in the permitted portions of the Munitions Demilitarization Building will be inspected for leakage in accordance with the Inspection Schedule, Attachment 3 of this Permit.

- III.E.5. The Permittee shall ensure that each ONC or spray tank shipping/overpack container is clearly marked to identify its contents and the date each period of accumulation began as specified in 40 CFR §268.50(a)(2)(i). Items stored within the MDB permitted areas will be tracked in accordance with a DEQ-approved tracking system.

### III.F. CONTAINMENT SYSTEM

- III.F.1. The containment system in the Container Handling Building UPA shall consist of the bermed floor area, all CHB sumps listed in Table 4-3 of this Permit and any associated trenches. The containment system for the CHB first floor permitted storage area shall consist of the on-site containers and spray tank shipping/overpack containers.

Primary containment for all of the permitted areas within the Munitions Demilitarization Building (except those areas discussed below) consists of the coated concrete flooring and sumps systems. Secondary containment for these areas is provided by the coated concrete vaults in which the primary liners are placed. The vaults shall be provided with leak-detection instrumentation and shall be sloped to promote drainage. Items within the Munitions Demilitarization Building Unpack Area and Toxic Maintenance Area "C" Airlock shall be stored within containers (munitions, bulk items, ONCs, and Overpacks). Secondary containment shall be provided by the coated flooring and sump systems in these areas. The sumps are provided with dedicated pumps and level indication in order to detect and remove any accumulated liquids in a timely manner.

Secondary containment in J-Block will be provided through the use of spill pallets. In accordance with 40 CFR 264.175(3) the minimum spill pallet capacity must equal the volume of either the largest single container stored on the pallet, or 10% of the total container volume on the pallet, whichever is greater.

- III.F.2. The Permittee shall operate the **CHB Unpack Area and MDB** containment systems in accordance with Volume IX, Section F-2b(1) of the Application.
- III.F.3. Sealants and coatings for the applicable containment systems will be chemical resistant epoxy as specified in Volume VI, Attachment D-3, Section D-4B-18 of the Application. The floor, sump, trenches, on-site containers and spray tank shipping/overpack containers located in the CHB will be inspected weekly according to Permit Condition III.G. Items stored within the MDB shall be visually inspected approximately once per week (when DPE entries are made), as applicable, and on a weekly basis, at a minimum, in accordance with Permit Condition III.G.
- III.F.4. The Permittee shall consider any unknown materials or liquids detected in the **CHB Unpack Area and MDB** containment systems to be a hazardous waste. The Permittee will sample and analyze the materials or liquids for chemical agent, TCLP metals, TCLP organics and any other suspected hazardous waste or hazardous waste constituents, in accordance with the methods in the Waste Analysis Plan in Attachment 2 of this Permit.
- III.F.5. The Permittee shall send those liquids collected from the containment systems to a Spent Decontamination Holding Tank
- III.F.6. The Permittee shall remove all materials or liquids in the **CHB Unpack Area and MDB** containment systems as soon as practicable and decontaminate affected containers, munitions, and bulk items, as applicable. A dedicated sump pump system may not leave a residual liquid depth of more than 1 inch. All sumps evacuated using a vacuum truck shall not leave pumpable residual liquids in the sump.
- III.F.7. Operation of the **CHB Unpack Area and MDB** sump level indicators shall be visually inspected per the Inspection Schedule in Attachment 3 of this Permit and shall be tested upon installation, annually, and between every chemical agent change as specified in Attachment 3 of this Permit.
- III.F.8. When materials are found in J-Block secondary containment pallets, they will be known to have leaked from a container. The container(s) will be identified and the contents repackaged.**

### III.G. INSPECTION SCHEDULES AND PROCEDURES

The Permittee shall inspect the permitted storage areas ~~containing hazardous waste~~ weekly to detect leaks from the primary containment and deterioration of the ONCs/overpacks ~~and containers~~ and/or the containment system caused by corrosion and other factors in accordance with the Inspection Schedule, in Attachment 3 of this Permit. All inspection data shall be recorded and the records shall be placed in the Operating Record in accordance with Permit Condition II.I.

III.G.1. Upon detection of a condition that has led to the release of a hazardous waste (e.g., upon detection of leakage from primary containment), the Permittee shall perform the following:

- Enter a record of the discovery in the facility operating record;
- Immediately remove the portion of the containment building affected by the condition from service;
- Determine what steps must be taken to repair the containment building, remove any leakage from the secondary collection system, and establish a schedule for accomplishing the clean up and repairs;
- Within 7 days after the discovery of the condition notify the DEQ of the condition, and within 14 working days provide a written notice to the DEQ with a description of the steps taken to repair the containment building and the schedule for accomplishing the work; and
- Upon completing all repairs and clean up, the Permittee shall notify the DEQ in writing and provide a verification, signed by a qualified, registered professional engineer, that the repairs and clean up have been completed according to the information provided above.

### III.H. RECORDKEEPING

The Permittee shall document the results of all waste analyses and tests in the Operating Record, in accordance with Permit Condition II.I.

III.I. CLOSURE

At closure of the permitted storage areas, the Permittee shall remove all hazardous waste and hazardous waste constituents from the areas, including the applicable secondary containment system, in accordance with the procedures in the Closure Plan in Volume XII, Section I of the Application as revised in accordance with Permit Condition II.J.1. The containment building closure requirements of 40 CFR 264.1102 will be incorporated into the revision performed in accordance with Permit Condition II.J.1.

III.J. REACTIVE WASTE

III.J.1. The Permittee shall take precautions to prevent accidental reaction of wastes as stated in Volume IX, Section F-5 of the Application.



For EPA Regional Use Only  Date Received Month    Day    Year _____	United States Environmental Protection Agency Washington, DC 20460 <h2 style="margin: 0;">Hazardous Waste Permit Application</h2> <h3 style="margin: 0;">Part A</h3> <p style="font-size: small;">(Read the instructions before starting)</p>
I. Installation's EPA ID Number (Mark 'X' in the appropriate box)	
<input type="checkbox"/> A. First Part A Submission <input checked="" type="checkbox"/> B. Part A Amendment #	
C. Installation's EPA ID Number                      D. Secondary ID Number (If applicable)	
O R Q 0 0 0 0 0 9 4 3 1	
II. Name of Facility S E E    X I X	
III. Facility Location (Physical address not P.O. Box or Route Number)	
A. Street S E E    X I X	
Street (Continued)	
City or Town                      State    Zip Code	
H E R M I S T O N                      O R    9 7 8 3 8 -	
County Code (if known)    County Name	
U M A T I L L A / M O R R O W	
B. Land Type    C. Geographic Location                      D. Facility Existence Date	
(Enter Code)    LATITUDE (Degrees, minutes & seconds)    LONGITUDE (Degrees, minutes & seconds)    Month    Day    Year	
F    4 5    5 1    0 3 N    1 1 9    2 5    1 6 W    0 2    1 2    1 9 9 7	
IV. Facility Mailing Address	
Street or P.O. Box S E E    X I X	
City or Town                      State    Zip Code	
V. Facility Contact (Person to be contacted regarding waste activities at facility)	
Name (Last)                      (First)	
S E E    X I X	
Job Title                      Phone Number (Area Code and Number)	
VI. Facility Contact Address (See Instructions)	
A. Contact Address                      B. Street or P.O. Box	
Location    Mailing    Other	
<input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/>	
City or Town                      State    Zip Code	

EPA I.D. Number (Enter from page 1)	Secondary ID Number (Enter from page 1)
O R Q 0 0 0 0 0 9 4 3 1	

**XII. Process Codes and Design Capabilities (Continued)**

EXAMPLE FOR COMPLETING ITEM XII (shown in line number X-1 below). A facility has a storage tank, which can hold 533,788 gallons

Line Number	A. Process Code (From list above)	B. PROCESS DESIGN CAPACITY		C. Process Total Number Of Units	For Official Use Only
		1. Amount (Specify)	2. Unit Of Measure (Enter code)		
X-1	S 0 2	533,788	G	001	
1	S 0 1	30,810.000	G	001	
2	S 0 2	6,900.000	G	003	
3	S 0 2	188,000.000	G	004	
4	S 0 2	1,960.000	G	002	
5	T 0 3	3.300	D	002	
6	T 0 3	1.200	D	001	
7	T 0 3	14.400	D	001	
8	T 0 3	0.530	D	001	
9	S 0 1	1,263,240.000	G	058	
10	S 0 6	36.800	Y	001	
11		SEE XIX			
12					
13					

NOTE: If you need to list more than 13 process codes, attach an additional sheet(s) with the information in the same format as above. Number the lines sequentially, taking into account any lines that will be used for "other" processes (i.e., D99, S99, T04 and X99) in item XIII.

**XIII. Other Processes (Follow instructions from item XII for D99, S99, T04 and X99 process codes)**

Line Number (Enter #s in seq w/XI)	A. Process Code (From list above)	B. PROCESS DESIGN CAPACITY		C. Process Total Number Of Units	D. Description Of Process
		1. Amount (Specify)	2. Unit Of Measure (Enter code)		
X-1	T 0 4				In-situ Vitrification
9	T 0 4	22,896.000	U	003	The Brine Reduction Area contains three rotary double-drum dryers.
10	T 0 4	66,240.000	U	002	The Brine Reduction Area contains two evaporator packages.
3					
4					

EPA ID Number (Enter from page 1)

Secondary ID Number (Enter from Page 1)

O R Q 0 0 0 0 0 9 4 3 1

XIX. Comments (Continued)

**VIII. Facility Owner (Name, Address, Phone Number, Owner Type)**

Name	Umatilla Chemical Depot	U.S. Army Project Manager for Chemical Stockpile Disposal
Street		78072 Ordnance Road
City	Hermiston	Hermiston
State	OR	OR
Zip Code	97838	97838
Phone Number	(541) 564-5200	(541) 564-7051
Owner Type	F	F

**X. Other Environmental Permits**

A. Permit Type	B. Permit Number	C. Description
E	25-0024	Air Contaminant Discharge Permit
E	UST- BECCB, BECCC	Underground Storage Tanks
E	WPCF #101456	Water Pollution Control Facilities Permit
N	200-J	NPDES Permit General Permit

**XII. Process Codes and Design Capabilities**

- Line 1 = Container Storage in the Container Handling Building  
 Line 2 = Spent Decontamination Solution Holding Tanks (3)  
 Line 3 = Brine Surge Tanks (4)  
 Line 4 = Agent holding tank (1); Agent surge tank (1)  
 Line 5 = Liquid Incinerators (2)  
 Line 6 = Deactivation Furnace System  
 Line 7 = Metal Parts Furnace  
 Line 8 = Dunnage Incinerator

Line 9 = Container Storage in J-Block Igloos (21,780 gallons per igloo)

Line 10 = MDB Containment Building

**XIV. B (Estimated Annual Quantity of Waste), C (Unit of Measure), and D (Process Codes).**

Even though the U.S. Army has recently declassified the quantities of munitions containing chemical agents that are stockpiled at this location, the U.S. Army has estimated annual quantities of rockets to be demilitarized at the UMCDF. Quantities of the other stockpile munitions will be reported prior to operation. Munitions currently in the Umatilla Chemical Depot stockpile to be processed at the UMCDF are as follows:

Agent	Item	Quantity
HD	Ton containers	2,635
GB	155 mm Projectiles, M121/A1	47,406
GB	8 inch projectiles, M426	14,246
GB	115mm Rockets, M55	91,375
GB	115mm Rocket Warheads, M56	67
GB	500-lb Bombs, MK-94	27
GB	750-lb Bombs, MC-1	2,418
VX	155mm Projectiles, M121/A1	32,313
VX	8-in Projectiles, M426	3,752
VX	Mines, M23	11,685
VX	115mm Rockets, M55	14,513
VX	115mm Rocket Warheads, M56	6
VX	Spray Tanks, TMU-28B	156

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1 B-1 GENERAL DESCRIPTION [40 CFR 270.14(b)(1); OAR 340-105-0014, 340-104-0001]

2

3 The ~~Umatilla Chemical Depot (UMCD)~~, which is in ~~North~~northeastern Oregon, stores and maintains  
4 conventional and chemical munitions for Department of Defense agencies (see Figures B-1-1<sup>1</sup> and B-1-2).  
5 It is near Hermiston, Oregon, approximately 10 miles southwest of the city of Umatilla. All hazardous  
6 wastes that are stored and treated are generated at the UMCDF or the UMCD. The UMCD does not  
7 accept hazardous waste generated off the facility, except for waste from the UMCDF.

8

9 B-1a U.S. Army Chemical Stockpile Disposal Program

10

11 Public Law 99-145 (the Department of Defense Authorization Act, 1986), as amended, directs the  
12 Department of Defense to destroy the United States' stockpile of bulk unitary chemical agents and  
13 munitions. The U.S. Army is the custodian of the chemical stockpile for the Department of Defense and  
14 stores some of the chemical agents and munitions at the UMCD. The destruction and elimination of the  
15 stockpile will be accomplished by separating the chemical agents, energetic components, and (with the  
16 exception of two munitions) the munition hardware or storage containers. The chemical agents and  
17 energetic components will then be separately incinerated.

18

19 The chemical agents fall into three basic categories: nerve agent VX, nerve agent Sarin (GB), and  
20 mustard agents (H, HT, and HD). These chemical agents are contained in rockets, land mines, projectiles,  
21 bombs, spray tanks, and ton containers. Typical information on the munitions and bulk items (ton  
22 containers, bombs, and spray tanks) is summarized in Table B-1-1<sup>1</sup>, while chemical agent characteristics  
23 are briefly described in Table B-1-2. Note that mustard agents H and HT are not present at UMCD.  
24 Additional information on the chemical agents addressed in this RCRA permit application is contained in  
25 Section C-1, "Chemical and Physical Analyses of Wastes."

26

27 The Department of Defense plans to construct and operate the UMCDF at the UMCD. The ~~current~~  
28 schedule for starting the demilitarization of the stockpiled chemical agents, bulk items, and munitions is  
29 ~~July, 2000~~ ~~February 2003, but this date is subject to change~~. All chemical agents, bulk items, and  
30 munitions to be processed by the UMCDF are currently stockpiled at the UMCD.

31

32 The Army issued a Final Programmatic Environmental Impact Statement for the Chemical Stockpile  
33 Disposal Program in January, 1988. The Record of Decision on the programmatic action, which selected  
34 onsite disposal, was issued in February 1988. The Army subsequently developed site-specific  
35 environmental documentation as required by the National Environmental Policy Act. The site-specific  
36 process was conducted in two phases. In Phase I, the programmatic decision of onsite disposal was given  
37 further consideration by reviewing its validity at each storage installation using more recent and more

<sup>1</sup>All figures and tables are located at the end of this section.

1 detailed data than those providing the basis for the Final Programmatic Environmental Impact Statement.  
2 Phase II (the preparation of the Environmental Impact Statement) focused on the site-specific  
3 implementation (plant construction and disposal operations) of onsite incineration (assuming that onsite  
4 disposal would be upheld after Phase I). A Phase I Environmental Report for the UMCD was completed  
5 by the Army in February 1990.

6  
7 The report concluded that the Final Programmatic Environmental Impact Statement's environmentally  
8 preferred alternative (onsite disposal), which was also the Army's preferred alternative in the Record of  
9 Decision, was valid for the UMCD. The Phase I report was independently reviewed by Argonne National  
10 Laboratory.

11  
12 In November 1990, the independent review of the findings and conclusions of the Phase I report and  
13 addendum were certified to Congress. The site-specific Environmental Impact Statement for UMCD, in  
14 conjunction with the Final Programmatic Environmental Impact Statement, addresses:

- 15
- 16 • An evaluation of the public health, safety, and environmental aspects of the proposals
- 17
- 18 • An evaluation of the social and economic impacts of the proposed actions on the affected  
19 community
- 20
- 21 • An evaluation of mitigation measures to alleviate problems identified above
- 22
- 23 • The relationship of the proposal to local planning and existing development.
- 24

25 The Army published the draft site-specific Environmental Impact Statement in October 1991. The final  
26 site-specific Environmental Impact Statement was postponed by the Department of the Army to await  
27 completion of the National Research Council Alternative Technology Study and to incorporate new  
28 information. The final site-specific Environmental Impact Statement will be ~~was~~ published in ~~March~~  
29 ~~1995~~ ~~May 1996~~, and the Record of Decision is expected to be ~~was~~ published in ~~April 1995~~ ~~thereafter~~.

30  
31 B-1b Overview of Chemical Agent Demilitarization Process

32  
33 The treatment processes are based on the destruction of chemical agents and related munitions by  
34 incineration. The primary processes to be employed at the UMCDF and simplified layouts are briefly  
35 discussed below. Figure B-1-3 presents a simplified process flow diagram of the treatment processes to  
36 be constructed. A more detailed description of the demilitarization process is provided in Sections D-1  
37 and D-2 of this permit application.  
38

1 Munitions/Bulk Items Processing  
2

3 The munitions/bulk items processing will include initial draining of chemical agent from spray tanks, ton  
4 containers, bombs, and munitions. It will also include shearing of M55 rockets, punching of the booster  
5 from M23 land mines, and disassembly of projectiles. The Deactivation Furnace System will process  
6 drained rockets and mines, as well as explosives and propellants removed from projectiles. The Metal  
7 Parts Furnace will thermally decontaminate all drained ton containers, drained spray tanks, drained  
8 bombs, drained munitions (with their explosives and propellants removed) other than rockets and mines,  
9 and empty mine drums.

10  
11 Chemical Agent Processing  
12

13 The chemical agents GB, VX, and mustard drained from bulk items and munitions will be burned in the  
14 two Liquid Incinerators, along with spent decontamination solution and liquid laboratory waste.

15  
16 Dunnage Processing  
17

18 The Dunnage Incinerator will incinerate potentially contaminated dunnage including wood; mops;  
19 cleanup material; spent laboratory solids (contaminated paper, plasticware, and glassware); polystyrene;  
20 spent filter media and miscellaneous metal wastes.

21  
22 Air Pollution Abatement Systems  
23

24 The flue gases from the Deactivation Furnace System, Metal Parts Furnace, and two Liquid Incinerators  
25 will be cleaned via separate wet pollution abatement systems. Each pollution abatement system will have  
26 a quench tower, a venturi scrubber, a packed-bed scrubber tower, a demister vessel, at least one carbon  
27 filter system, and associated pumps and blowers. These four incinerator pollution abatement systems will  
28 share a common stack. The brine from the wet scrubbers will be pumped to brine surge tanks and will be  
29 fed to evaporators and drum dryers (Brine Reduction Area operations) to reduce the liquids to a brine salt.  
30 The Dunnage Incinerator will have a dry flue gas pollution abatement system consisting of a quench  
31 tower, recirculation tank, baghouse, carbon filter system, associated pumps and blowers, and a stack.

32  
33 Dunnage Incinerator Pollution Abatement System Carbon Filter System separator condensate from the  
34 carbon filter system will be pumped to a quench recirculation tank and distributed to either the quench  
35 tower or the brine surge tanks.

36  
37 Particulates from the exhaust of the Brine Reduction Area operations will be removed by a dry pollution  
38 abatement system. The exhaust from the drum dryers will be heated to prevent moisture condensation,  
39 and the combined evaporator package/drum dryer exhaust will be directed through a baghouse system for

1 separation of particulate matter from the gas stream. Exhaust from the Brine Reduction Area pollution  
2 abatement system will be vented through a stack.

3

4 Storage of Chemical Agent Related Waste

5

6 Potentially agent-contaminated or other hazardous wastes generated as a result of demilitarization  
7 activities may be containerized and stored in J-Block igloos prior to further treatment.

8

9 UMCDF Layout and Operation

10

11 The UMCDF layout is shown in Figure B-2-2, Site Plan. The disassembly of munitions and subsequent  
12 incineration of chemical agents, bulk items, and related munitions will occur in the Munitions  
13 Demilitarization Building. The pollution abatement systems for the incinerators will be located in the  
14 immediate vicinity of that building. Brine reduction operations will occur in the Process and Utility  
15 Building and the associated pollution abatement system will be located in the immediate vicinity of that  
16 building. Brine salts, ash, and incineration residues will be packaged in lined containers and will be  
17 temporarily stored in the Residue Handling Area in the Process and Utility Building. The containers of  
18 waste, if determined to be hazardous, will be regularly removed from the Residue Handling Area to an  
19 offsite approved hazardous waste treatment, storage, or disposal facility. Spent carbon and ventilation  
20 system filters will be stored in the Toxic Maintenance Area.

21

22 The UMCDF will be operated 24 hours per day, 5 days per week, 50 weeks per year. On occasion, the  
23 UMCDF may operate 6 or 7 days per week. Personnel will be at the site at all times because the UMCDF  
24 will be operated on a standby basis on holidays and weekends.

25

26 B-1c Hazardous Waste Disposed of/Generated

27

28 Chemical Agents, Bulk Items, and Munitions

29

30 The UMCDF stores ton containers of mustard; 155mm projectiles containing GB and VX; 8-inch  
31 projectiles containing GB and VX; M55 rockets containing GB and VX; M23 land mines containing VX;  
32 500- and 750-pound bombs containing GB; and spray tanks containing VX (see Table B-1-1). When the  
33 munitions are delivered to the Container Handling Building, the physical location and custody  
34 responsibility will be transferred to the chemical demilitarization program. At this point, all chemical  
35 agents and munitions will be classified as a hazardous waste. (Only the M55 rockets have previously  
36 been designated as hazardous waste.) Once removed from the inventory, all of these chemical agents and  
37 related munitions will be classified as hazardous waste because of their reactivity. Oregon Administrative  
38 Rules also classify nerve agents GB and VX as acutely hazardous wastes [OAR 340-101-0033(6)(b)(7)].

39



1 Potentially Hazardous Wastes Generated at UMCDF

2  
3 In addition to chemical agent and munition wastes, there will be potentially hazardous wastes generated  
4 during the UMCDF operation that may require either storage, further onsite treatment, or shipment offsite  
5 to an approved hazardous waste treatment, storage, or disposal facility. These wastes include:

- 6
- 7 • Brine generated from the Liquid Incinerators, Metal Parts Furnace, and Deactivation Furnace  
8 System pollution abatement systems
  - 9
  - 10 • Brine salts generated from brine reduction operations
  - 11
  - 12 • Spent decontamination solution
  - 13
  - 14 • Residues collected from the cyclone in the Deactivation Furnace System
  - 15
  - 16 • Ash from the operation of the Dunnage Incinerator, Metal Parts Furnace, and Deactivation  
17 Furnace System
  - 18
  - 19 • Residues from the Dunnage Incinerator pollution abatement systems (baghouse)
  - 20
  - 21 • Spent carbon from the incinerator pollution abatement systems, ventilation system,  
22 Deactivation Furnace System cyclone, and Agent Collection Tank System filters.
  - 23
  - 24 • Ventilation system filters (high-efficiency particulate air filters, prefilters)
  - 25
  - 26 • Laboratory wastes generated from onsite chemical analysis
  - 27
  - 28 • Slag generated from the secondary chamber of the Liquid Incinerators (resulting from the  
29 incineration of spent decontamination solution).

30 Nonprocess waste

31  
32 Table C-1-4 provides a matrix of waste material versus RCRA and State of Oregon hazardous waste  
33 designation and rationale. Chemical and physical characteristics of the chemical agents, propellants, and  
34 explosives are presented in Tables C-1-6 through C-1-11. A detailed description of the chemical agents,  
35 munitions, process residues, and the analyses to be performed is provided in Section C and in

36 Attachment 2 of the Permit.

37

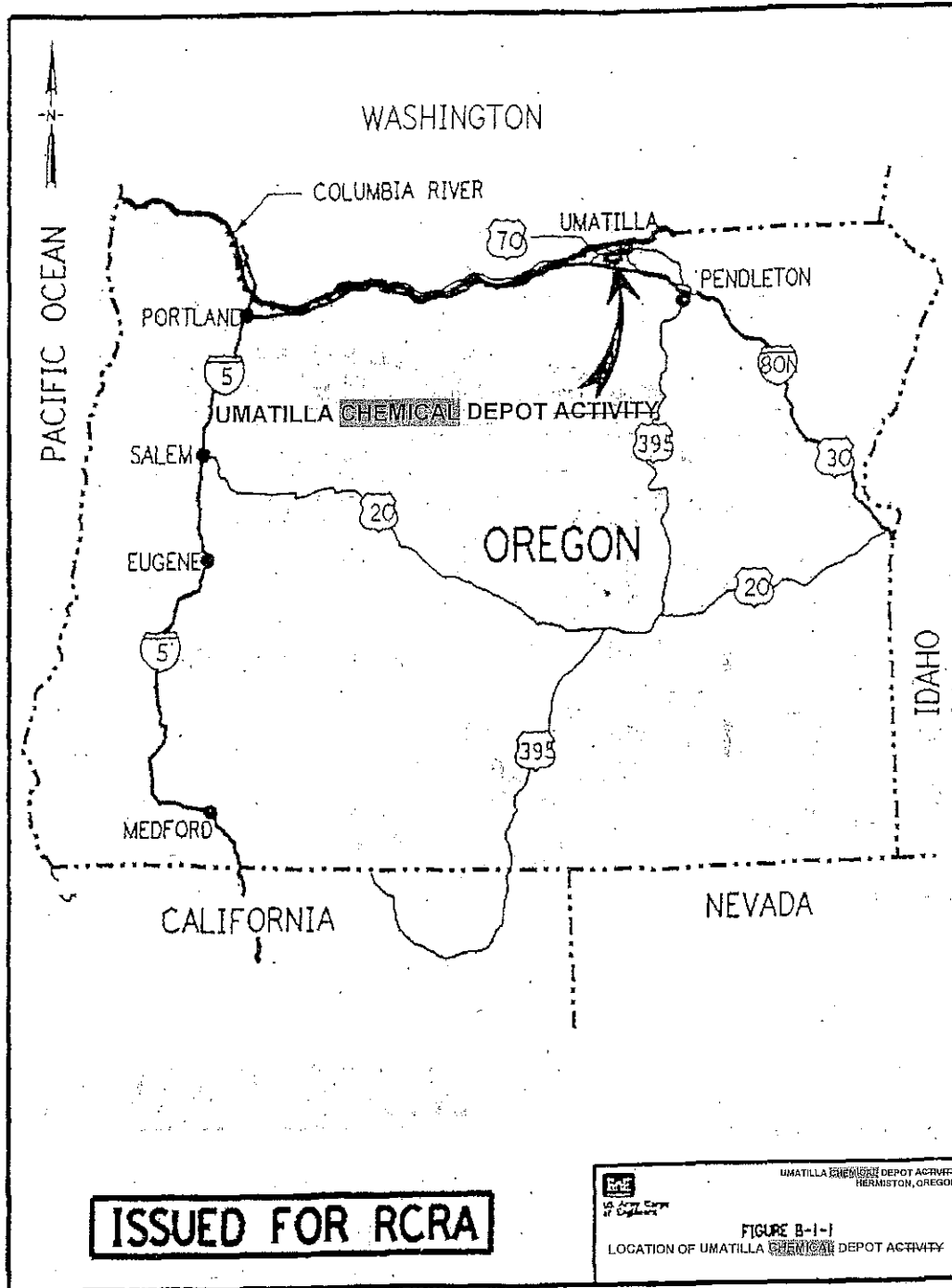
1 B-1d RCRA Hazardous Waste Treatment and Storage Units to be Permitted

2

3 The hazardous waste management (process) systems will consist of container storage (SO1), storage tanks  
4 (SO2), incinerators (TO3), and other treatment units (TO4). The containers (e.g., ~~drum~~ containers,  
5 projectiles, rockets, bombs, land mines, and spray tanks) ~~are containers that will hold explosives,~~  
6 ~~propellants, and/or the various chemical agents. Other containers will hold~~ Secondary wastes stored in  
7 other types of containers may include, but are not limited to, brine salts, ash, residues from  
8 incineration, and spent filter media. The storage of chemical agents, explosives, and propellants in the  
9 munitions and bulk items will be addressed as container storage with regard to the hazardous waste  
10 regulations. However, ~~the M55 rockets will be the only munition subject to container management~~  
11 ~~regulations, since the M55 rockets will be brought into the UMCDF as hazardous waste. The other~~  
12 ~~munitions, bulk items, and process wastes will not be stored longer than 90 days and will be managed~~  
13 ~~according to the generator standards of 40 CFR 262.34. Information and management of these wastes~~  
14 ~~are, however, addressed in this permit application for a more complete understanding of UMCDF~~  
15 ~~operation and management.~~

16  
17 Tanks will hold chemical agent, spent decontamination solution, liquid laboratory wastes, and brines from  
18 the incinerator pollution abatement systems. The incinerators will be classified as hazardous waste  
19 incinerators because they will be enclosed devices that use controlled flame combustion to thermally  
20 break down hazardous waste as their primary purpose. Other treatment units include the drum dryers and  
21 evaporator packages in the Brine Reduction Area.

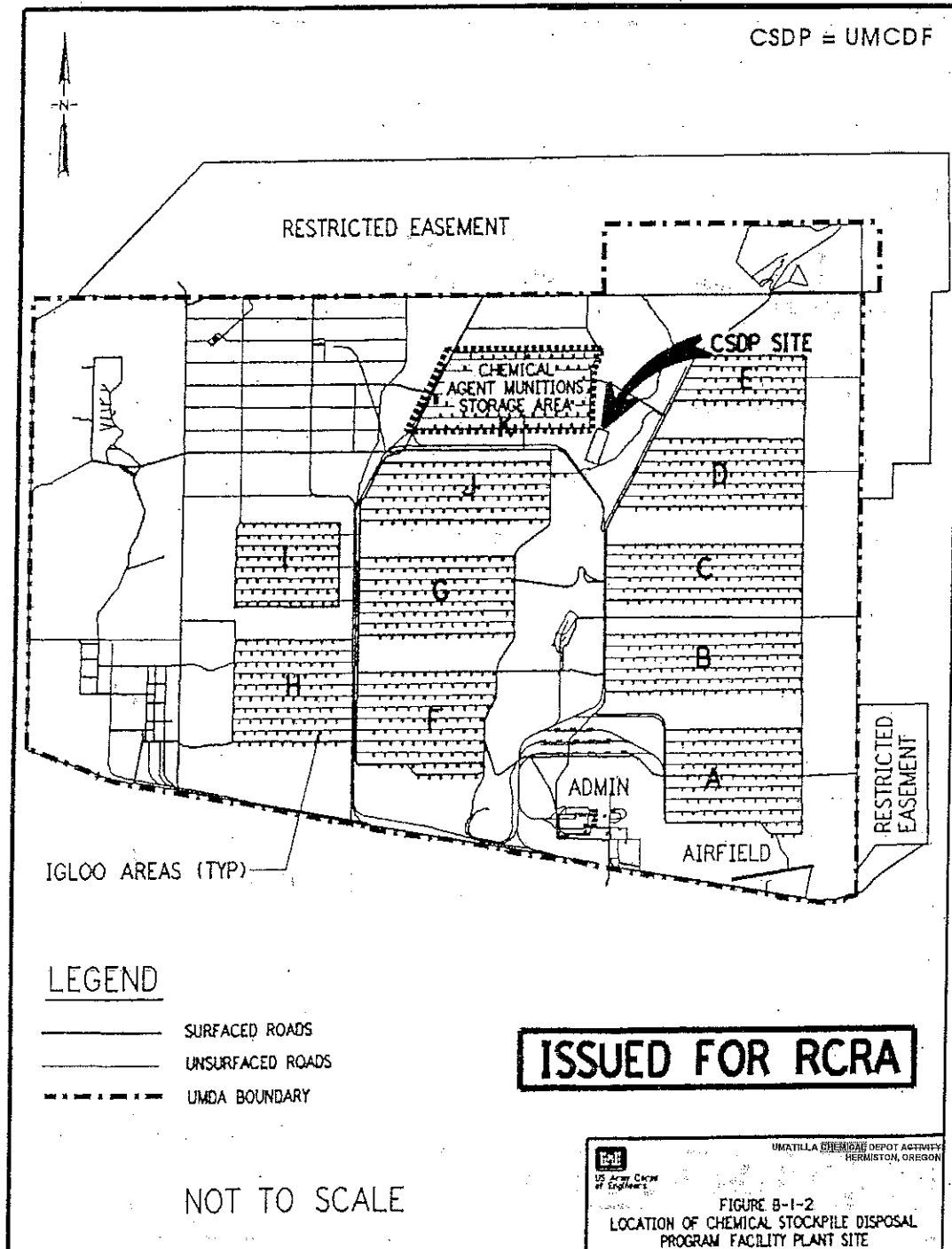
22  
23 Table C-1-5 provides a matrix of wastes versus waste management units. A more detailed overview of  
24 the waste management units appears in Section D-2, while detailed engineering descriptions of the design  
25 and operation of the individual units are contained in Sections D-3 through D-9.



B-1-7

UMCDF.B-1

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1 B-2 TOPOGRAPHIC MAP REQUIREMENT [40 CFR 270.14(b)(19); OAR 340-105-0014]

2

3 B-2a General

4

5 In accordance with the requirements of 40 CFR 270.14(b)(19), a topographic map and other figures are  
6 used to detail the UMCDF's location and surrounding area. This information includes: contour maps, the  
7 location of surface waters, a wind rose, surrounding land use, and facility area designations.

8

9 The UMCDF ~~treatment units are~~ located southeast of the K-Block Chemical Munition Storage Area,  
10 ~~while additional storage is located directly south of K-Block in J-Block.~~ Figure B-2-1<sup>1</sup> shows the  
11 general location of the proposed UMCDF. In addition, the figure shows the location of access roads and  
12 major topographic features. K-Block, located northeast of the UMCDF, is illustrated in Figure B-1-2.  
13 The information on K-Block is included in the permit application for informational purposes only.  
14 K-block is not considered part of the UMCDF permit application.

15

16 The topographic map (Figure B-2-1) depicts a distance of 1,000 feet around the entire UMCDF. The  
17 map's scale is 1 inch equals 200 feet ~~for Sheet 1 and 1 inch equals 300 feet for Sheet 2.~~ Topographic  
18 contours are displayed at 5-foot intervals ~~on Sheet 1 and Sheet 2.~~ There are no legal boundaries shown  
19 for the UMCDF because it is totally self-contained within the UMDA. Legal boundaries for the  
20 UMDA ~~UMCD~~ are shown on Figure B-1-2; the ~~legal~~ boundaries for the UMCDF are shown in  
21 Figure B-2-1. Additional information on the topographic map includes hazardous waste management and  
22 operational units, major structures and roads, access controls (i.e., perimeter fencing and gates), and  
23 rainfall runoff flow direction.

24

25 A wind rose for the UMDA ~~UMCD~~ is included in Figure B-2-1. Because of the UMDA ~~UMCD~~'s location  
26 close to the Columbia River, winds in the area are influenced by the river and have a high velocity most  
27 of the year. The wind rose of meteorological data was collected in 1980 by Portland General Electric  
28 Company at Ordnance, Oregon, located adjacent to the UMDA ~~UMCD~~. This plot shows a predominance  
29 of winds from the west through the southwest (over 50 percent) in line with the orientation of the river.

30

31 The site plan (Figure B-2-2) depicts a distance of approximately 200 feet around the entire UMCDF. The  
32 site plan's scale is 1 inch equals 100 feet and topographic contours are displayed at 2-foot intervals ~~for~~  
33 ~~Sheet 1. Sheet 2 of the site plan has a scale of 1 inch equals 300 feet, and topographic contours are~~  
34 ~~not shown.~~ Additional information on the site plan includes hazardous waste management and  
35 operational units, hazardous waste loading and unloading areas, finished grades for the major structures  
36 and roads, water lines, sanitary sewer lines, storm drain lines, and fire hydrants. There are no solid waste  
37 management units expected within the boundary of the UMCDF.

<sup>1</sup>All figures are located at the end of this section.

B-2-1

UMCDF.B-2

1

2 The five hazardous waste incinerators (the Liquid Incinerators [two], Metal Parts Furnace, Deactivation  
3 Furnace System, and Dunnage Incinerator) will be located in the Munitions Demilitarization Building.  
4 The Agent Collection Tank System and the Spent Decontamination Holding Tank System will also be  
5 located in the Munitions Demilitarization Building. The Brine Surge Tank System will be located outside  
6 of, and adjacent to, the Process and Utility Building. The Brine Reduction Area (evaporator packages and  
7 drum dryers) will be located inside the Process and Utility Building. The LAB Chemical Waste Storage  
8 Tank System will be located near the Laboratory. Container storage will be located in the Residue  
9 Handling Area within the Process and Utility Building (less than 90 day storage), the Toxic Maintenance  
10 Area in the Munitions Demilitarization Building (less than 90 day storage), and the East and West  
11 Storage Areas of the Container Handling Building (greater than 90 day storage) and in J-Block gloos  
12 (greater than 90 day storage).

13  
14 Water-Related Features

15  
16 There are no surface waters on the site; all precipitation evaporates or infiltrates into the desert soil before  
17 it reaches lower surrounding lands. The Columbia River is located about 3 miles north of the  
18 UMDA UICD boundary, and the Umatilla River is approximately 6 miles east of the UMDA UICD  
19 boundary. Other major rivers within 60 miles of the site include the Yakima and Snake Rivers. Several  
20 small streams are tributaries to the rivers in the vicinity of the UMDA UICD.

21  
22 The UMDA UICD is not within any known floodplain area. There are no permanent or intermittent  
23 streams within the UMDA UICD.

24  
25 Given the absence of surface waters and of flooding potential, there are no barriers for drainage or flood  
26 control.

27  
28 There are no injection wells on the UMDA UICD or within 1,000 feet of the hazardous waste  
29 management areas. Approximately 2,000 gallons per hour of water are required for the UMCDF  
30 operations. Two of the UMDA UICD's eight existing withdrawal wells are within the limits of  
31 mapping. Well pump house No. 3 is approximately 1.8 miles southwest of the proposed UMCDF  
32 treatment units. The nearest well is located near the pump house (Building 652), within the  
33 southwestern corner of the K-Block in the Chemical Limited Area, about 1.2 miles west of the UMCDF  
34 treatment units.

35  
36 In order to prevent generation of leachate or downward percolation, the processing and  
37 greater than 90 day storage of all hazardous and potentially hazardous waste at the UMCDF will take  
38 place in enclosed structures with concrete bases or will utilize engineering controls such as spill pallets  
39 in accordance with OAR 340-102-0034(C) that should prevent the generation of leachate or downward

1 percolation. In addition, permitted J-Block igloos designated for storage of wastes containing higher  
2 levels of agent contamination will be equipped with drain plugs prior to use for storage of  
3 hazardous waste.

4  
5 Runoff from all hazardous or potentially hazardous waste handling areas to other areas of the UMCDF or  
6 the environment is prevented by facility design features (either total facility enclosure or floor drains and  
7 sumps) or the use of engineering controls (such as spill pallets). All liquids collected in sumps within  
8 the Munitions Demilitarization Building will be transferred to the spent decontamination holding tanks.  
9 for eventual incineration.

10  
11 The UMCDF site design includes a location for a stormwater drainage collection basin that will be  
12 constructed if required by the Clean Water Act. The stormwater drainage collection basin would be  
13 constructed outside the fenced area to collect stormwater from within the fenced boundaries. There are  
14 no manmade structures constructed in the J-Block storage area for controlling stormwater runoff.

15  
16 Storm drainage from off-site areas will be diverted around the UMCDF treatment unit area by the use  
17 of swales and ditches, thereby preventing any runoff. Storm drainage from within the UMCDF treatment  
18 unit area will be directed eastward using a combination of swales, ditches, and culverts. The runoff will  
19 be directed to existing UMDA/UMCD drainage courses.

20  
21 The UMDA/UMCD proposes to construct a sanitary waste treatment system consisting of two septic tanks  
22 and a pressure subsurface absorption field in accordance with Oregon Administrative Rules.

#### 23 24 Other Features

25  
26 All surrounding land around the UMCDF is associated with the UMDA/UMCD, and is used for  
27 warehousing or storage of chemical and regular munitions.

28  
29 Legal boundaries of the UMDA/UMCD are beyond the area mapped in Figure B-2-1. The proposed  
30 UMCDF boundaries are shown in Figure B-2-1. The UMDA/UMCD is located north of Interstate 84,  
31 southwest of Hermiston, and approximately 31 miles west-northwest of Pendleton.

32  
33 The UMCDF treatment units will be fenced in with the existing K-Block area, so the entire perimeter of  
34 the K-Block facility will be contained within two 6-foot-high chain-link fences, each topped with  
35 concertina wire, for a total height of 8 feet. Access to K-Block and the UMCDF treatment units will be  
36 controlled by a remote-activated double gate and turnstile system. Only one person at a time will be able  
37 to enter the area between turnstiles. Vehicles (with driver only) must enter through the double gates. All  
38 roads, parking areas, sidewalks, and driveways within and near the UMCDF treatment units will be

1 paved. All other areas from 30 feet inside the interior security fence to 30 feet outside of the exterior  
2 double fence will be gravel. All other unpaved areas will be seeded with low-maintenance native grasses.

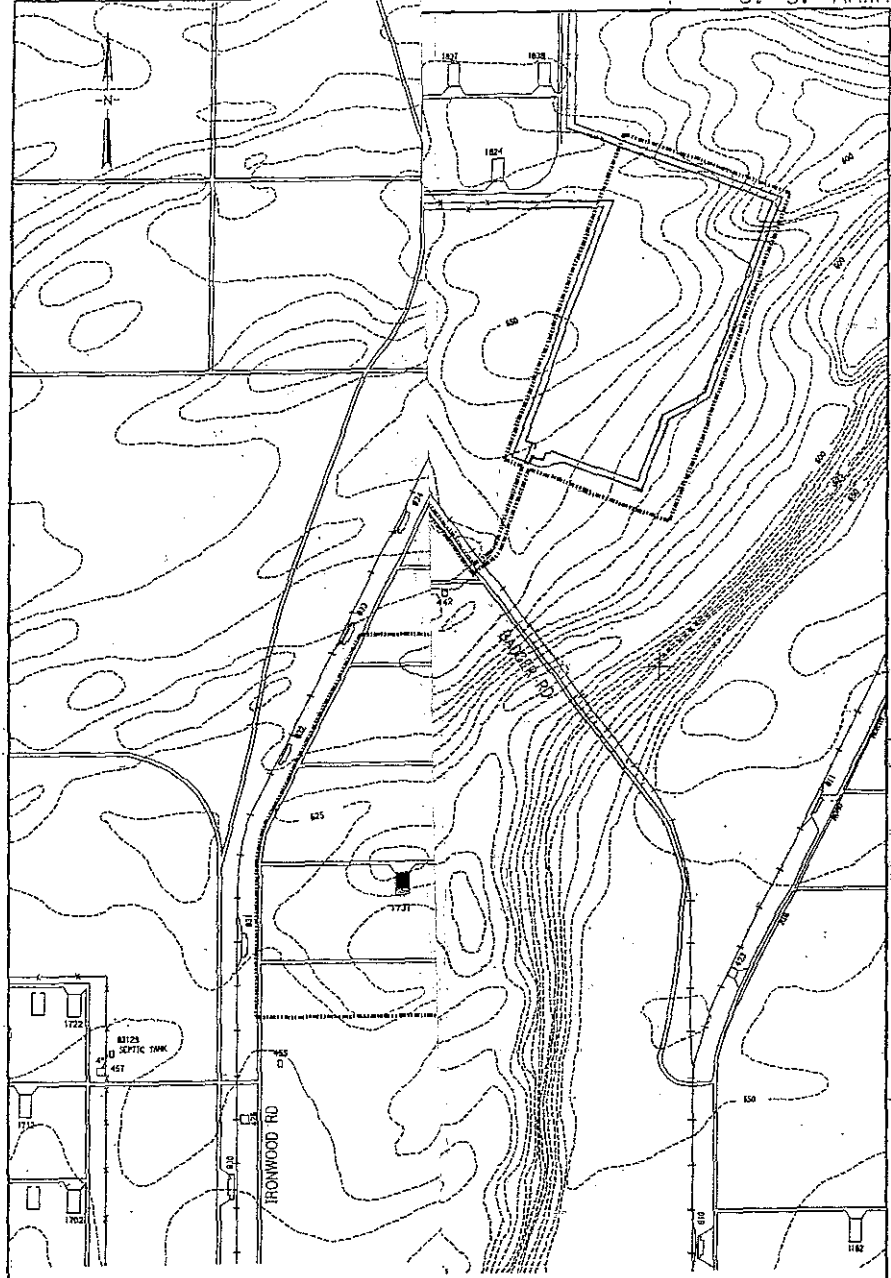
3  
4 All proposed UMCDF buildings are shown in Figure B-2-2. A detailed discussion of loading/unloading  
5 areas and access and internal roads are found in Sections F-4a and B-4, respectively. The proposed  
6 locations of the fire hydrants for the UMCDF are shown in Figure B-2-2. The UMDA/UMCD fire  
7 department has initial responsibility for fire control at the UMCDF.

8  
9 B-2b Additional Requirements for Land Disposal Facilities [40 CFR 270.14(c)(3) and (c)(4)(i), 264.95,  
10 264.97; OAR 340-105-0014, 340-104-0001]

11  
12 The UMCDF will have no land disposal units, therefore, the requirements of this section are not  
13 applicable.



DATE: 06/07/02  
DESIGN FILE: 226-90-16-C-3



RCRA DRAWING

LEGEND :

- LEGAL BOUNDARY
- UMCDF PERMITTED IGLOO

Description		Date	Approved
Revisions			
DIRECTOR OF THE ARMY AM MANAGER FOR DEMILITARIZATION WING GROUND, MARYLAND		US ARMY ENGINEERING AND SUPPORT CENTER, HUNTSVILLE HUNTSVILLE, ALABAMA	
US Army Corps of Engineers		UMATILLA DEPOT ACTIVITY HERMISTON, OREGON	
<b>CHEMICAL STOCKPILE DISPOSAL PROGRAM</b> <b>SITE WORK</b> <b>B-2-1</b> <b>TOPOGRAPHIC MAP</b>			
Dtd. by:	Date:	Sheet reference number:	Design file no.:
Drawing code: 226-90 - -	SK-1M-16-C-3	Sheet 2 of 2	Rev.
BASELINE DRAWING REV			

5

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1 B-3 LOCATION INFORMATION [40 CFR 270.14(b)(11); OAR 340-105-0014]

2

3 B-3a Seismic Standard [40 CFR 270.14(b)(11)(i) and (ii), 264.18(a), 264 Appendix VI;  
4 OAR 340-105-0104, 340-104-0001]

5

6 The UMDA UMCDF is not located in any of the political jurisdictions listed in Appendix VI to  
7 40 CFR Part 264. According to the requirements of 40 CFR 264.18, the proposed UMCDF at the  
8 UMDA UMCDF, located in Morrow and Umatilla Counties, is in compliance with the seismic  
9 requirements of this regulation.

10

11 B-3b Floodplain Standards [40 CFR 270.14(b)(11)(iii), 264.18(b); OAR 340-105-0014, 340-104-0001]

12

13 The UMDA UMCDF area has not been mapped for the National Flood Insurance Program because there  
14 are no flowing or intermittent streams on or in the vicinity of the UMDA UMCDF.

15

16 There are no rivers or streams that pose a flooding threat to the UMCDF. The Columbia River is located  
17 about 3 miles north of the UMDA UMCDF boundary, and the Umatilla River is approximately 6 miles east  
18 of the UMDA UMCDF boundary. The flow of the Columbia River is regulated by a large number of dams  
19 and reservoirs on the river's main stem and on the river's main tributaries. None of the land within 1,000  
20 feet of the proposed UMCDF is susceptible to flooding from rivers or streams. The only potential flood  
21 threat to UMCDF treatment units results from local drainage from the very small upland drainage area.  
22 This flooding source has been analyzed using the Rational Method.

23

#### 24 Onsite Drainage

25

26 The UMDA UMCDF is located on high ground overlooking the Columbia River Valley to the north and  
27 the Umatilla River Valley to the east. There are no well-defined streams in the area and storm drainage is  
28 generally overland sheet flow occasionally collected in swales. The proposed UMCDF treatment units  
29 will be located in the path of overland flow from about 13 acres of tributary area. The site grading will be  
30 such that any incoming flow will be split nearly in half and diverted north and south around the UMCDF  
31 treatment units. Surface swales or ditches will be built to carry the water around the UMCDF  
32 treatment units. The peak flow in each swale was analyzed using the Rational Method.

33

34 The UMCDF treatment unit area will be graded so that water does not run toward any building. In  
35 addition, each treatment unit building will be several feet above ground, adding a factor of safety to the  
36 flood protection. The local relief is such that the UMCDF treatment unit site will easily shed  
37 stormwater to the east. The 100-year 24-hour precipitation is 2.3 inches and will pose no flood threat to  
38 the UMCDF from local ponding.

39

- 1 The local relief is such that the UMCD generally sheds stormwater to the south and east in the
- 2 vicinity of J Block. There is a large drainage running from the north toward the south between
- 3 J and K Blocks and E and D Blocks, through the center of the UMCD. This drainage does not
- 4 normally contain surface water but might do so during periods of intense precipitation. The mean
- 5 annual precipitation is eight inches, so large stormwater runoff events are uncommon.

1 B-4 TRAFFIC PATTERNS [40 CFR 270.14(b)(10); OAR 340-105-0014]

2

3 The transportation of chemical agents, munitions, bulk items, and previously designated hazardous waste  
4 (i.e., M55 rockets) will consist of truck transport from the long-term UMDA/UMCD Chemical Limited  
5 Area to the UMCDF's Container Handling Building and, subsequently, to the Munitions Demilitarization  
6 Building. Process ash, residues, and brine salts, and other demilitarization waste will be transported to  
7 an approved off-site hazardous waste treatment, storage, or disposal facility (if they are found to be  
8 hazardous) or to permitted storage units located in E-Block.

9

10 Traffic to and from the UMCDF treatment area will occur on upgraded and widened roads. Existing  
11 roads will be used as much as possible and upgraded, as necessary. Proposed changes to the  
12 UMDA/UMCD road system include flat terrain, Class E road with a 5-year design life. There will be no  
13 one-way streets or traffic control devices or signs within the UMCDF treatment area. Entry to the  
14 UMCDF treatment area will be controlled through the Entry Control Facility. Traffic patterns at the  
15 UMDA/UMCD are shown in Figure B-4-1<sup>1</sup>. All personal vehicles will be parked outside the UMCDF  
16 treatment area and will not impact the traffic within the UMCDF treatment area.

17

18 The construction of the new UMCDF roads will meet the technical requirements contained in Army  
19 Technical Manuals TM 5-822-2 and TM 5-822-5 included as Attachment B-1. Certifications of proper  
20 road construction by a registered professional engineer will be provided before new roads are utilized for  
21 any hazardous waste transportation activity in coordination with the Army Corps of Engineers. The roads  
22 will have 10-foot-wide lanes with a minimum cross-slope of 2 percent and will have 6-foot-wide gravel  
23 shoulders with a minimum cross-slope of 6 percent.

24

25 The maximum load assumed for design is the American Association of State Highway Transportation  
26 Officials HS-20 loading--18,000 pound maximum axle load; 32,000 pound maximum axle group; 72,000  
27 pound maximum vehicle weight. Cross-sections of the UMCDF's treatment area's road system are  
28 provided in Figure B-4-2. All main access routes to the UMCDF treatment area are paved all-weather  
29 roads meeting Department of Army Road Design Standards. The pavement key plan for the UMCDF  
30 treatment area is provided in Figure B-4-3.

31

32 The locations of the roads from the UMCDF treatment area to the UMDA/UMCD Chemical Limited  
33 Area are shown in Figure B-4-1. Traffic routes within the UMCDF treatment area are shown in  
34 Figures B-4-4 through B-4-11 for munitions/bulk items truck and forklift traffic, truck supply traffic,  
35 truck and forklift traffic for solid waste from the incinerator pollution abatement systems, personnel  
36 traffic, Brine Reduction Area solid waste handling, Deactivation Furnace System solid waste handling,

<sup>1</sup>All figures are located at the end of this section.

1 Dunnage Incinerator solid waste handling, and Metal Parts Furnace solid waste handling. Traffic routes  
2 between J-Block and the UMCDF treatment area are shown in Figure B-4-12.

3  
4 K-Block Access Roads

5  
6 The K-Block's access roads are the roads over which trucks, carrying munitions and bulk items, will  
7 travel to the UMCDF treatment area. Nine parallel access roads running east-west on 400-foot centers  
8 are intersected by three north-south access roads. Two of the north-south roads form the eastern-western  
9 boundaries of the K-Block; the third road bisects the K-Block and is the main access road from the  
10 K-Block entrance area to Badger Road. The maximum one-way distance from a storage igloo to the  
11 K-Block to the UMCDF treatment area entrance is approximately 1.5 miles. This route would start at  
12 the northwest corner, on Road G heading east. The truck would turn south at the K-Block main access  
13 road (K-Block Road), heading toward the main K-Block entrance area. At the entrance area, the truck  
14 would turn east again onto Road A and head directly to the UMCDF treatment area entrance. Use of  
15 these roads is very limited because of the strict security requirements of the area. Vehicles used in the  
16 area include security patrols, inspection vehicles, transfer equipment (forklifts), and emergency response  
17 vehicles. As a general rule, heavy-duty vehicles do not travel the Chemical Limited Area roads. Traffic  
18 volume is restricted.

19  
20 Supply trucks will enter the UMCDF treatment area from an access road planned to connect Badger  
21 Road to the southwestern corner of the UMCDF. This access road will approach the UMCDF treatment  
22 area from the southwest and will be approximately 1,200 feet long. The total road distance from the  
23 UMDA/UMCD entrance to the UMCDF is approximately 3 miles.

24  
25 Table B-4-1<sup>2</sup> presents estimates of the UMCDF traffic densities. As Table B-4-1 shows, the greatest  
26 number of vehicle trips will occur during the M55 destruction campaigns. Total associated two-way  
27 traffic on the roads used for the transport of brine salts, incinerator ash, and incineration residues to the  
28 Residue Handling Area will range between about 5 and 16 vehicles per day, depending on the type of  
29 munition being processed. The number of flatbed trucks moving munitions and bulk items between the  
30 Chemical Limited Area and the Munitions Demilitarization Building will vary between 10 and 37,  
31 depending on the item processed. This estimate does not include traffic associated with operation and  
32 maintenance support and security, which is estimated at an additional 72 vehicles per day.

33  
34 Transfer of Waste to and from J-Block

35  
36 Hazardous waste transport between J-Block and the UMCDF treatment area should use  
37 Greasewood and Badger Roads, which are two-lane roads. Six 10-foot-wide parallel storage unit

<sup>2</sup>All tables are located at the end of this section.

1 access roads (Roads A-F) running east-west on 400-foot centers are intersected by 2 north-south  
2 access roads. Greasewood Road forms the eastern boundary of J-Block and Ironwood Road forms  
3 its western boundary. The maximum one-way distance from a J-Block storage igloo to the UMCDF  
4 treatment area entrance is approximately 2.7 miles. This route would start at the southwest corner  
5 on Road A heading east. The truck would turn north at Greasewood Road and then east on Badger  
6 Road to the UMCDF treatment area access road.

7  
8 External Access

9  
10 Interstate 84 provides access to the UMDA UMCDF via an interchange located about one-quarter mile  
11 south of the UMDA UMCDF. State Highway 730 connects with Interstate 84 about 10 miles west of the  
12 UMDA UMCDF and follows the south side of the Columbia River east through the City of Umatilla to the  
13 Washington-Oregon state lines.

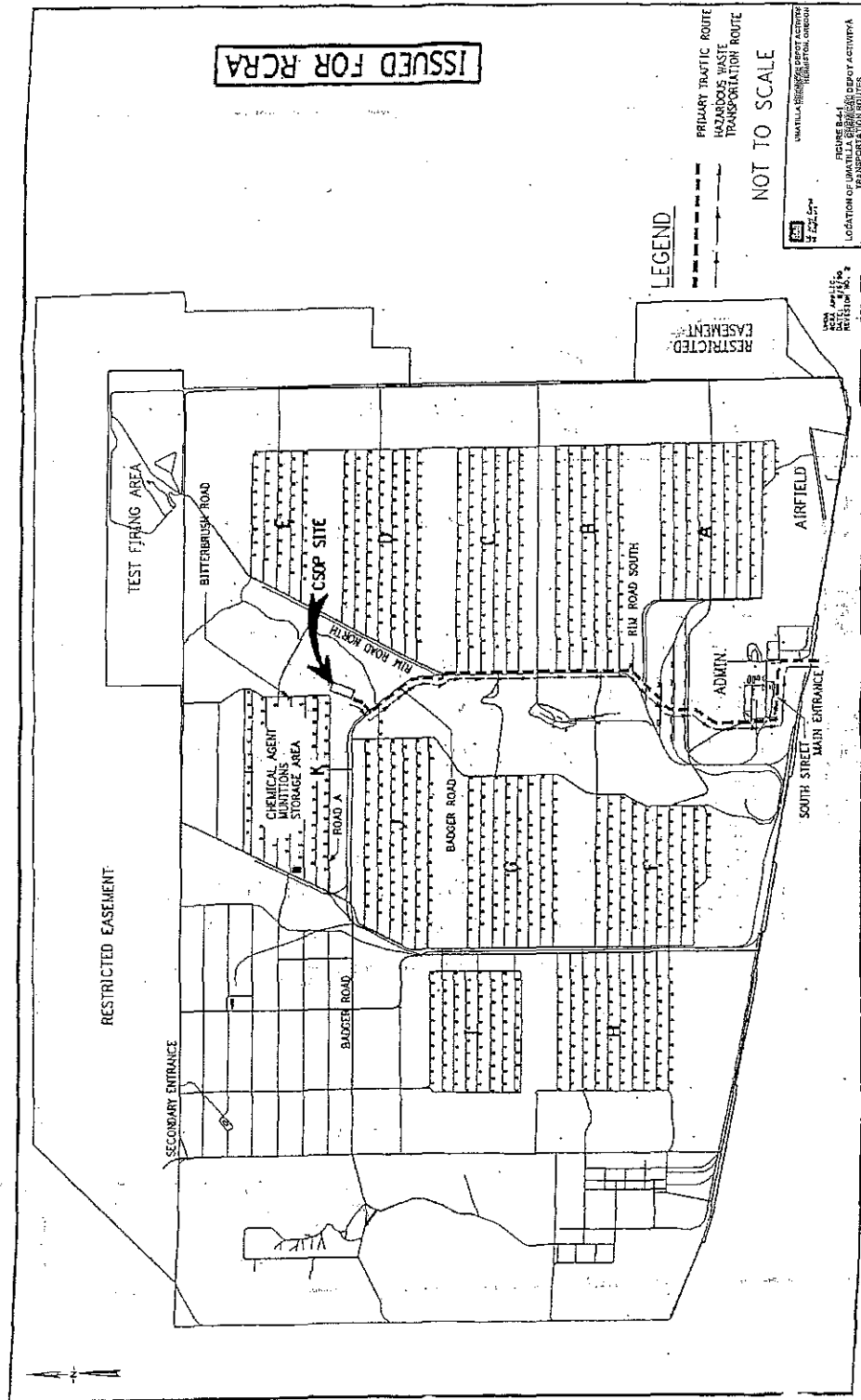
14  
15 The traffic volume on access roads within UMDA UMCDF to the UMCDF will be dominated by security  
16 patrols. In a 24-hour period, at least ten trips may occur over Rim Road and Badger Road. Security  
17 vehicles will be either passenger vehicles or light-duty trucks. Other traffic will consist of supply  
18 vehicles and personnel buses. The anticipated volume of this traffic, as it relates to the UMCDF, is  
19 shown in Table B-4-1. (Current traffic volume is approximately 10 cars per day on these roads.) All  
20 vehicular and personnel access to the UMCDF and Chemical Limited Area will be restricted and  
21 controlled by gated and guarded entries as described further in Section F-1.

22  
23 All storage unit access roads, including those within the K-Block and J-Block areas facility, are  
24 designated as Class F roads. Class F means the road is single-lane in flat or rolling terrain. The design  
25 speed is 25 miles per hour for rolling terrain and 30 miles per hour for flat terrain. The average running  
26 speed is 23 miles per hour.

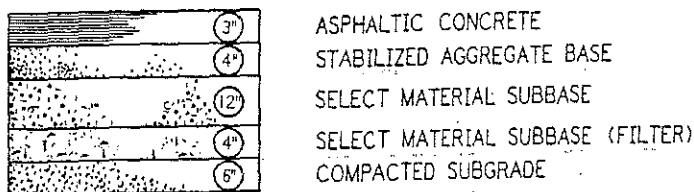
27  
28 The K-Block and J-Block storage unit access roads are 10 feet wide, and the principal access roads to  
29 the K-Block those areas (Rim Road, Greasewood Road, and Badger Road) are both 16 feet wide.

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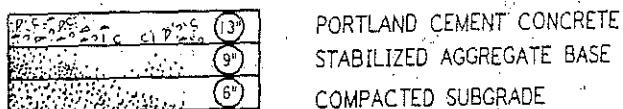




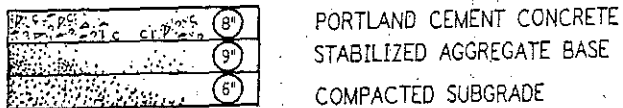
ISSUED FOR RCRA



ASPHALTIC CONCRETE PAVEMENT STRUCTURE



TYPE "A" CONCRETE PAVEMENT STRUCTURE



TYPE "B" CONCRETE PAVEMENT STRUCTURE


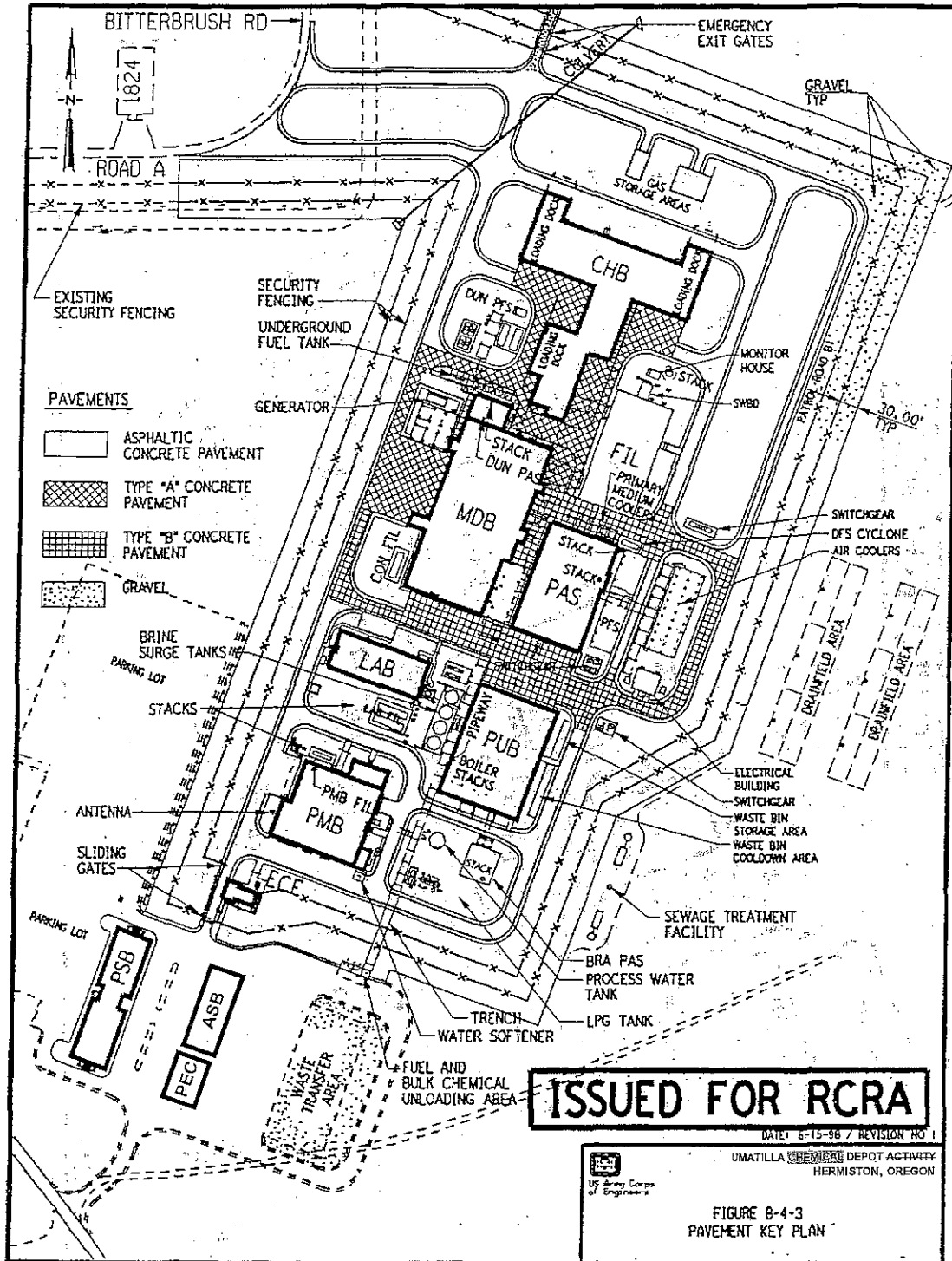
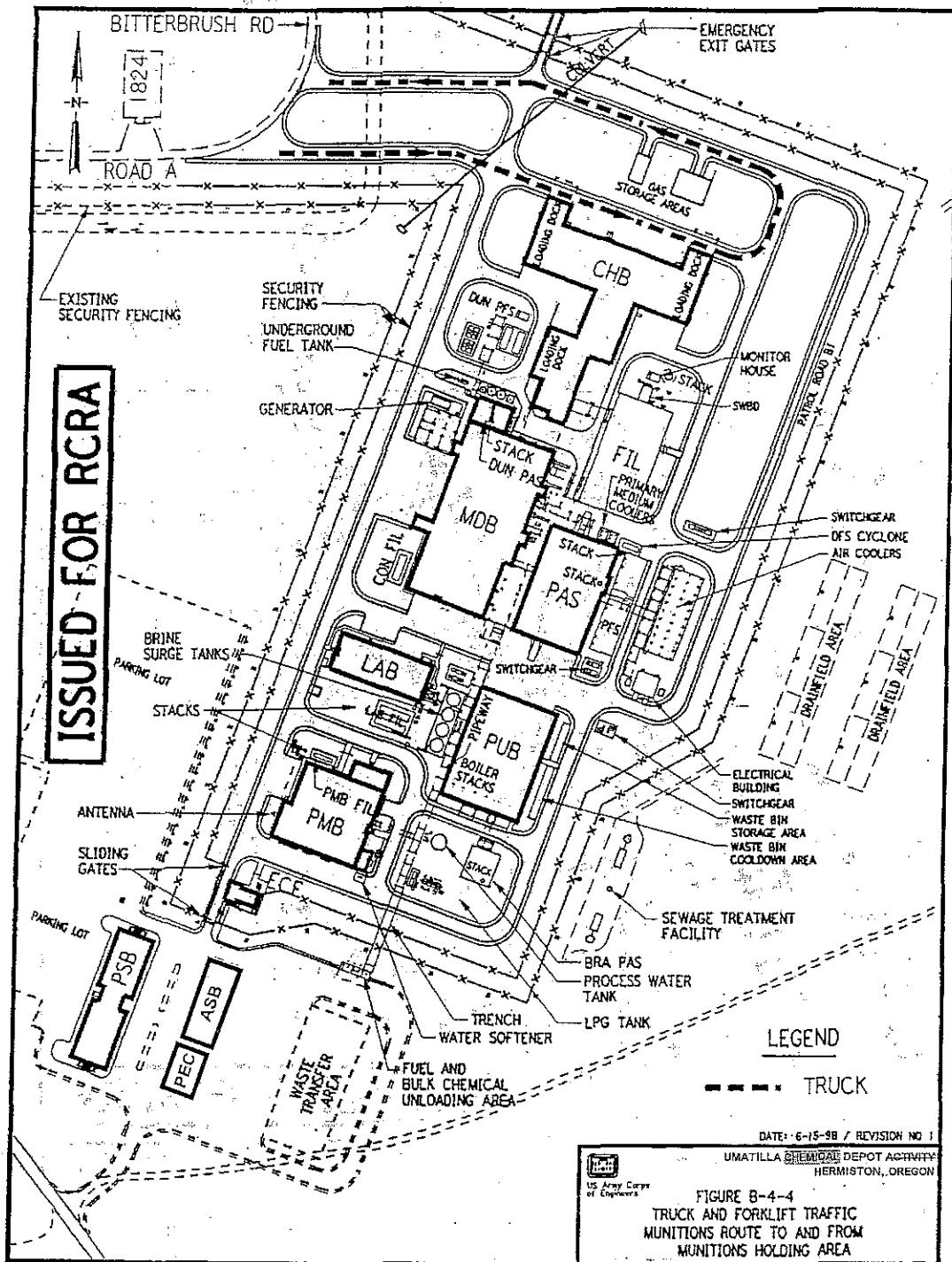
 UMATILLA BIERMONGER DEPOT ADDRESS  
HERMISTON, OREGON

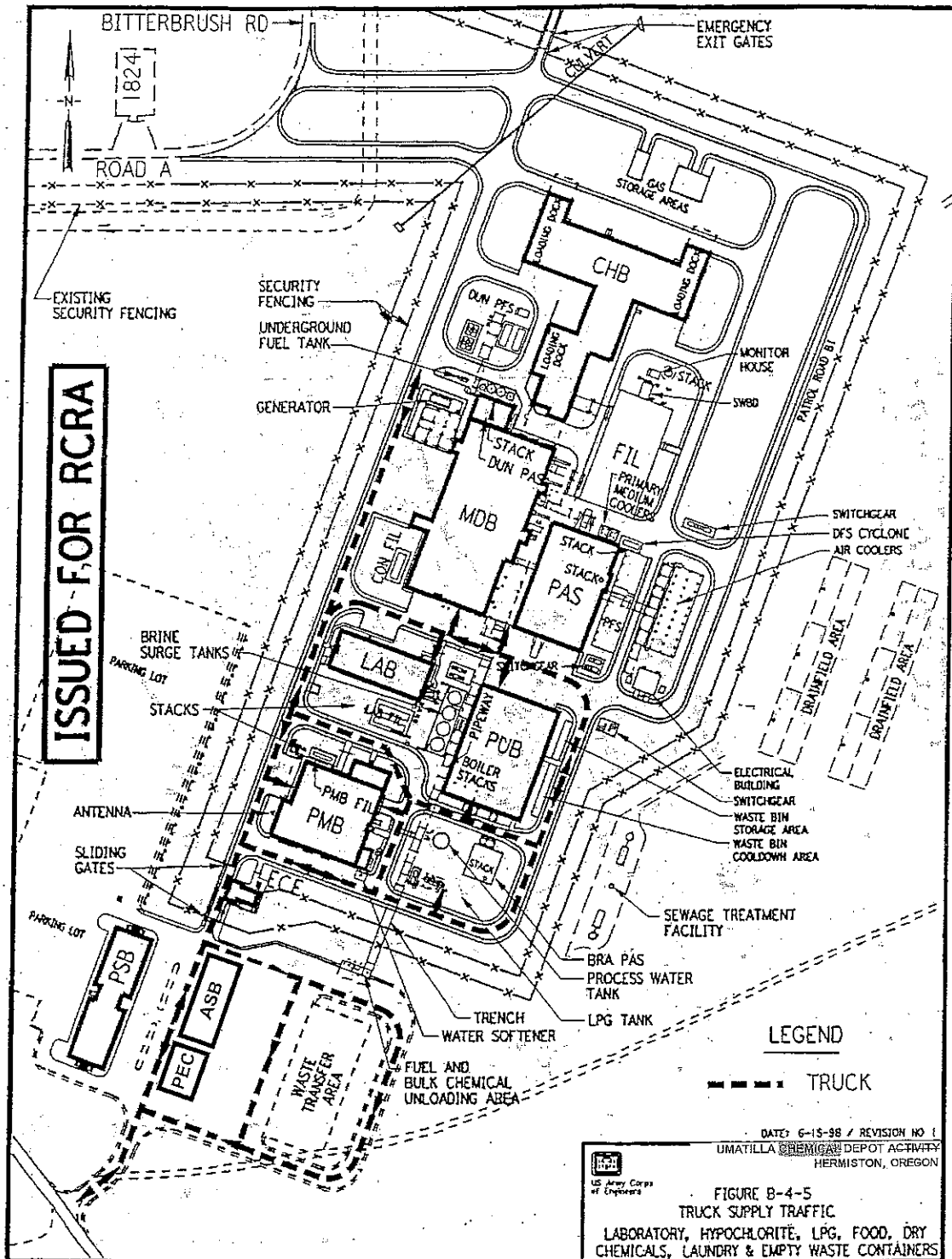
FIGURE B-4-2  
PAVEMENT SECTIONS

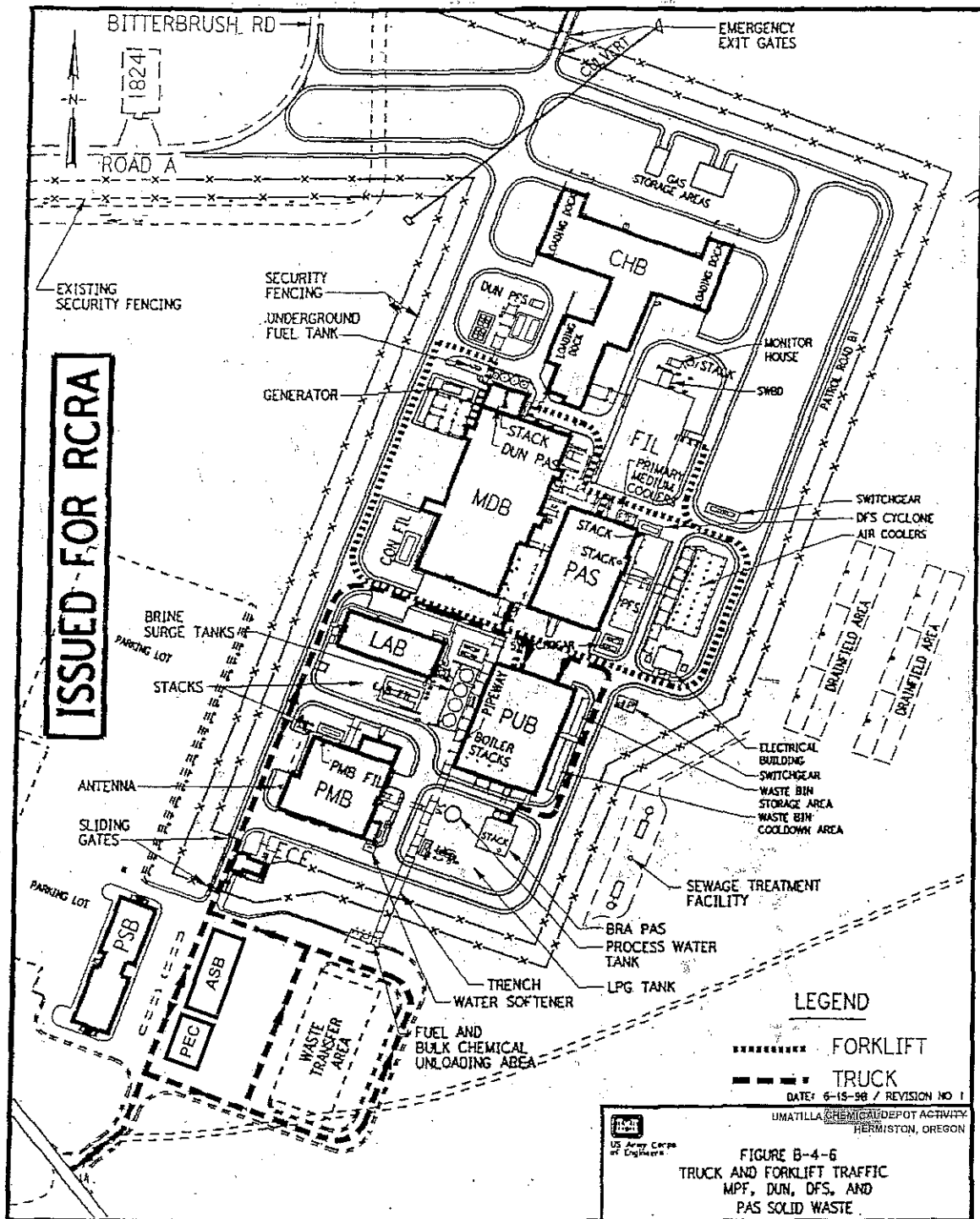


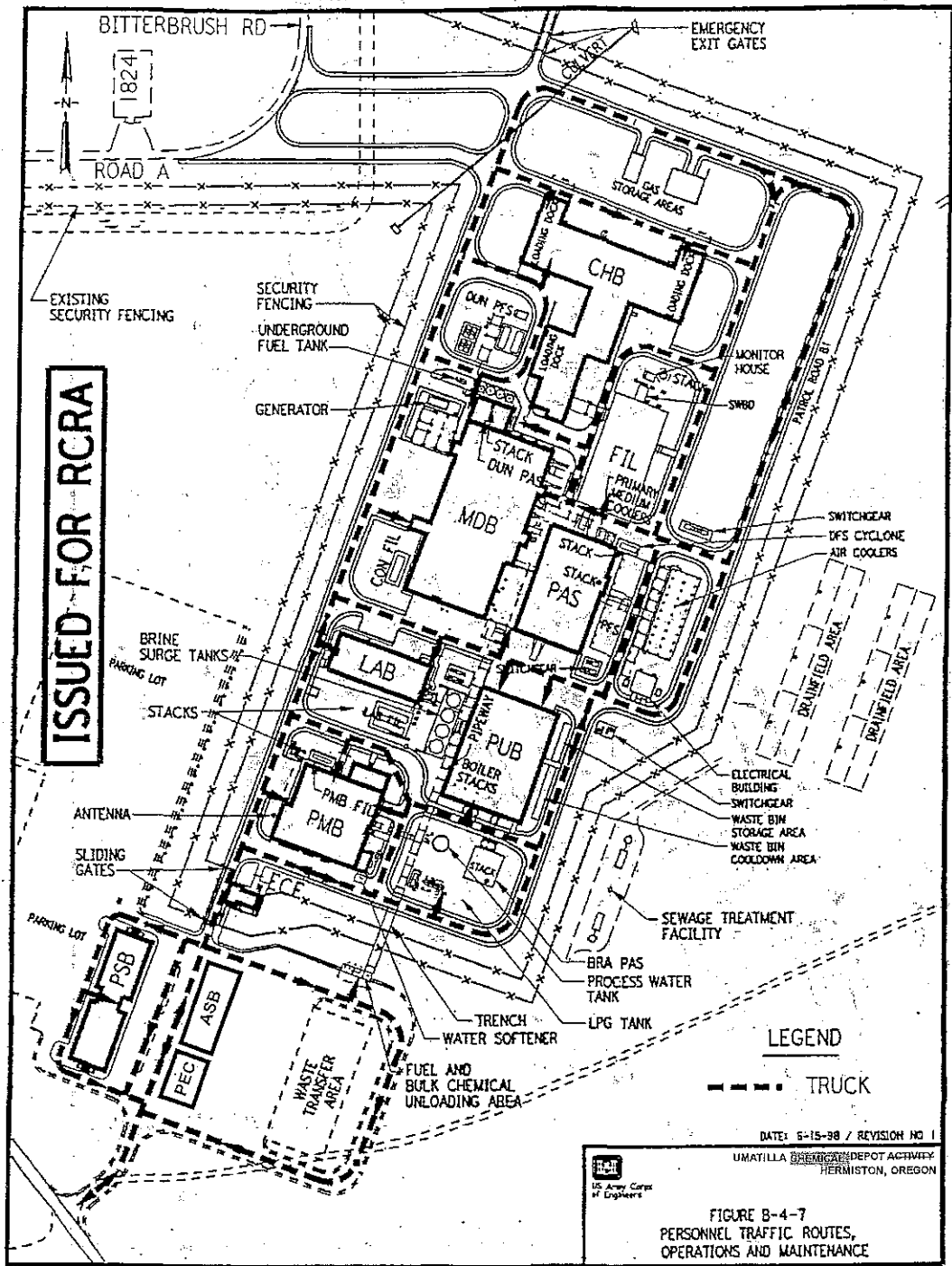


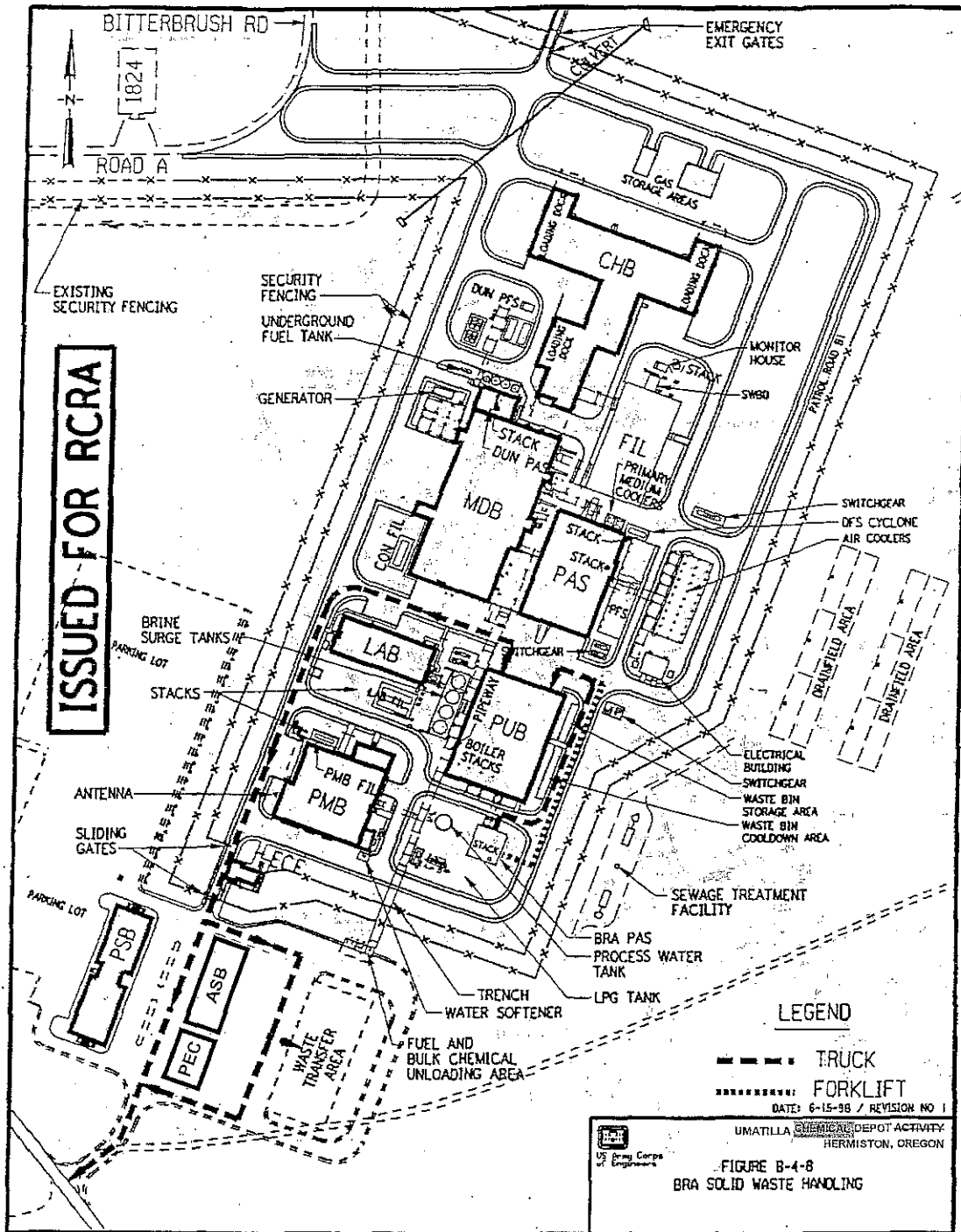
B-4-7

UMCDF.B-4







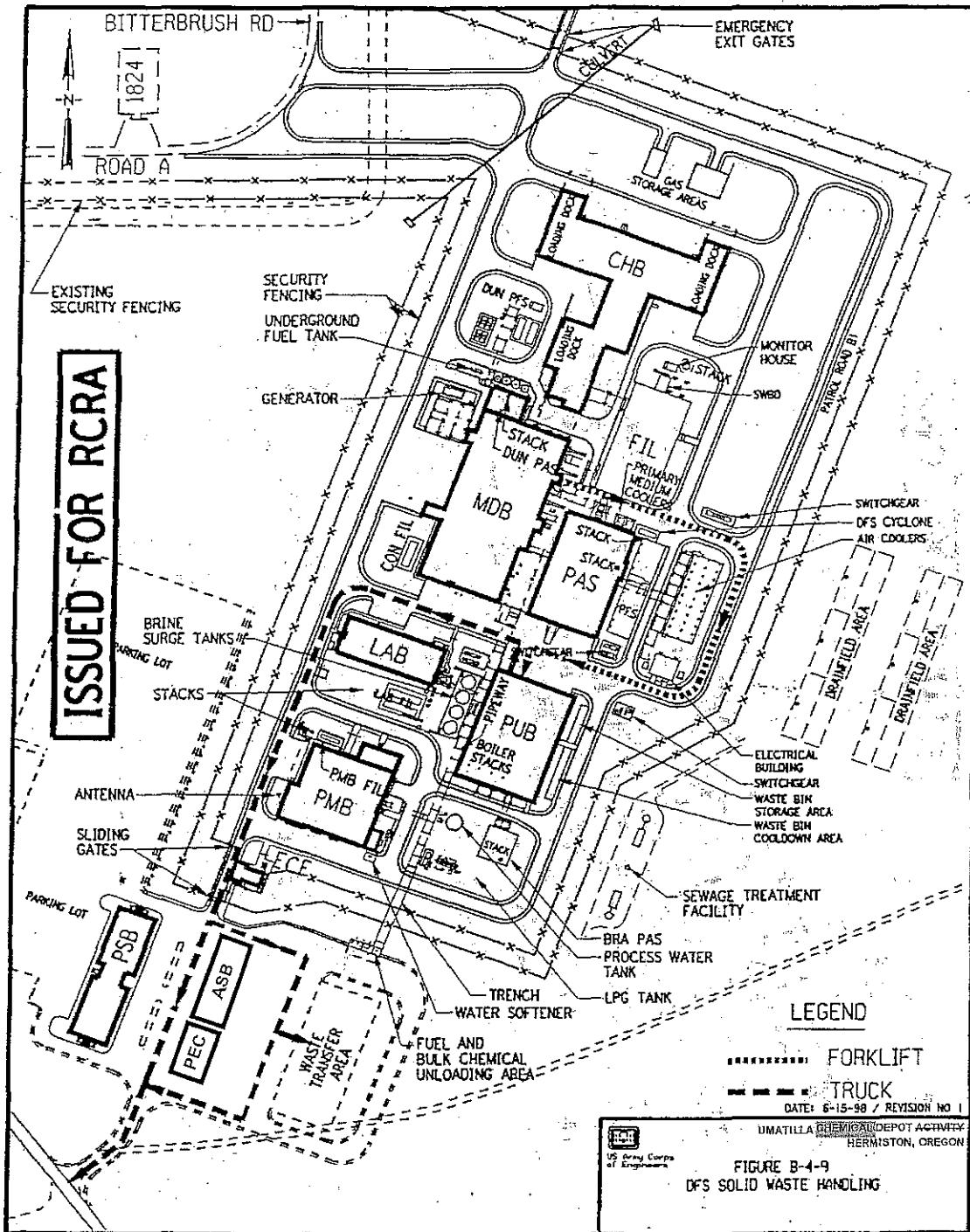


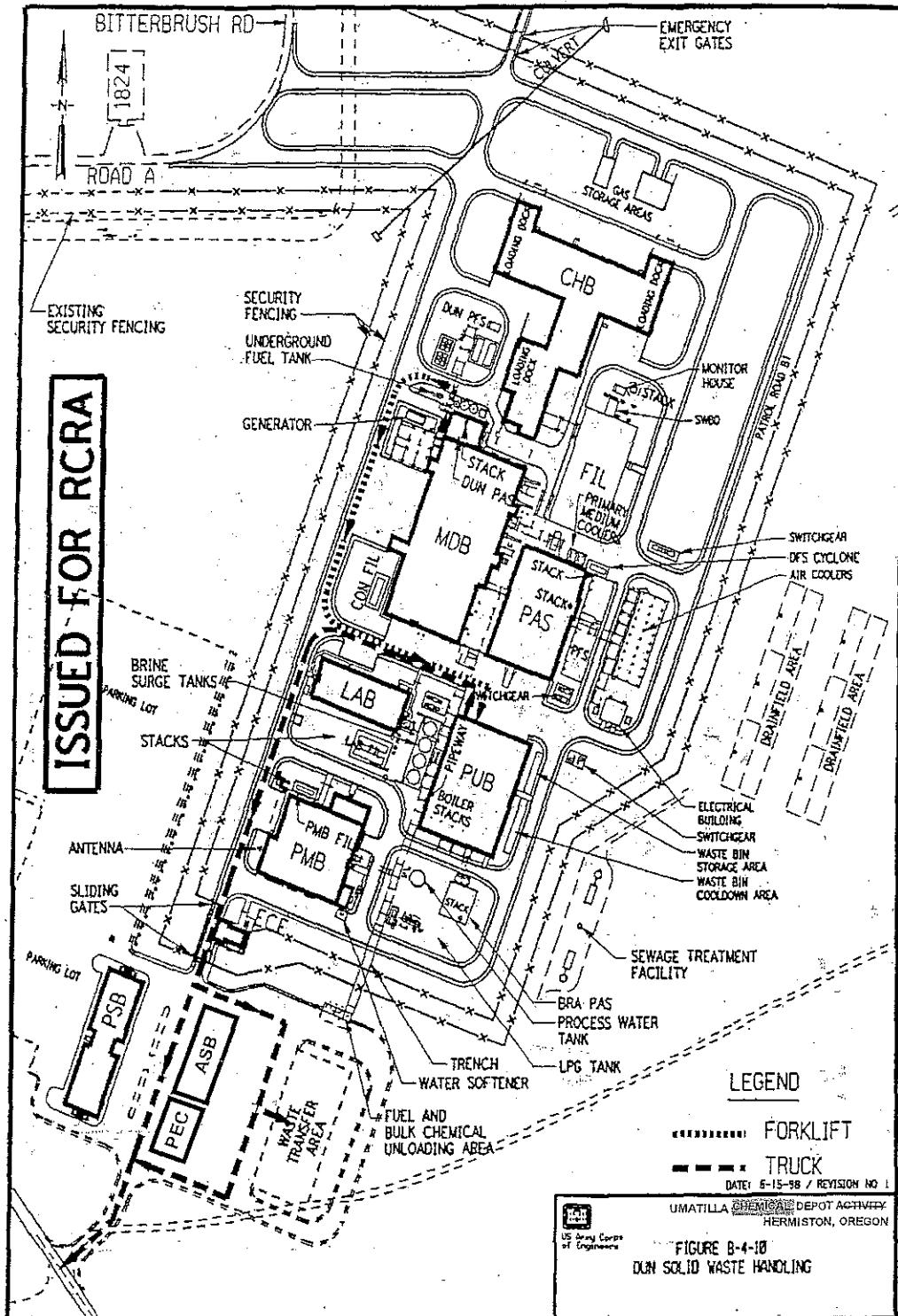
B-4-11

UMCDF B-4

Approval Process: UMCDF Operations  
 June 6-7, 2002 EQC Meeting

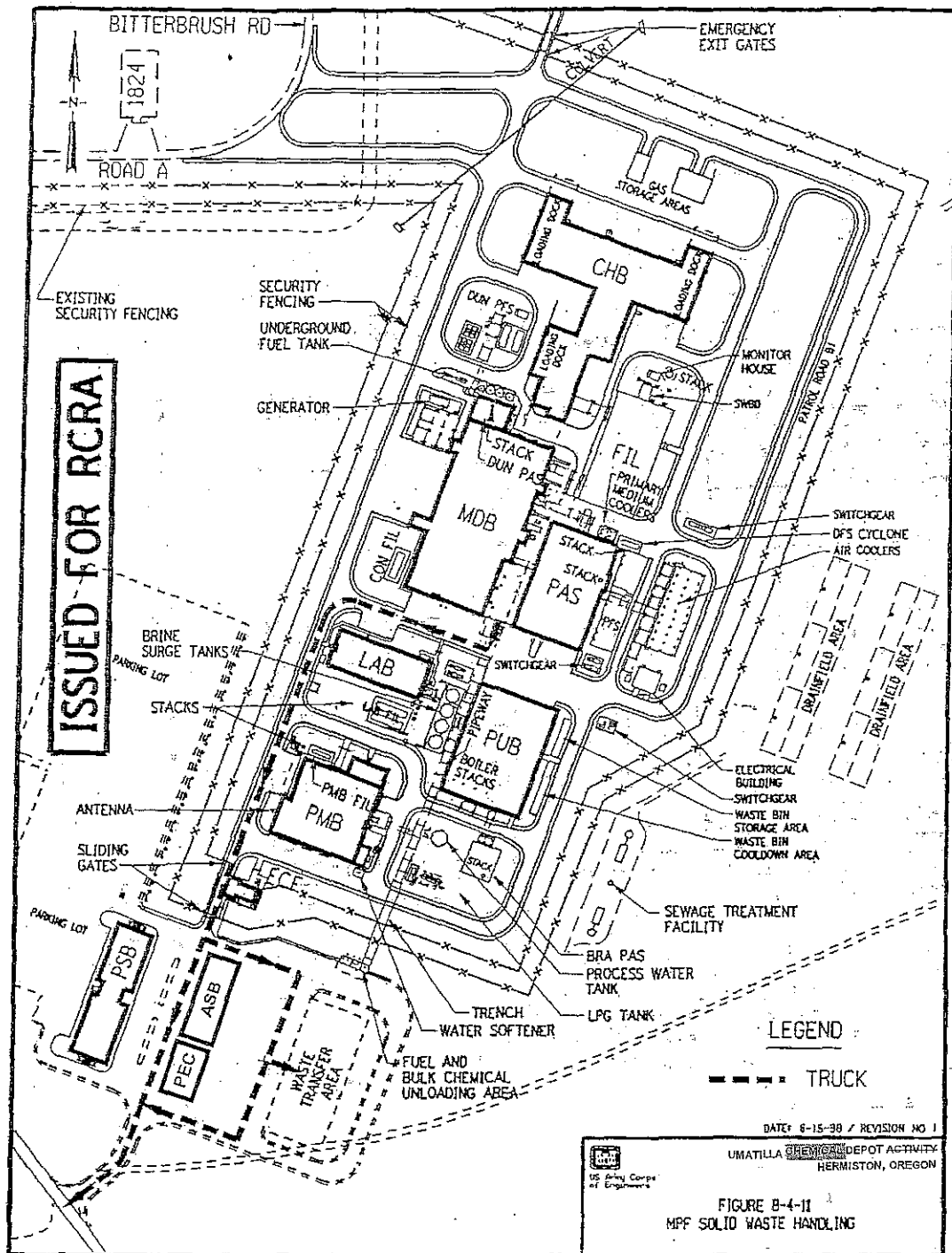






B-4-13

UMCDF B-4



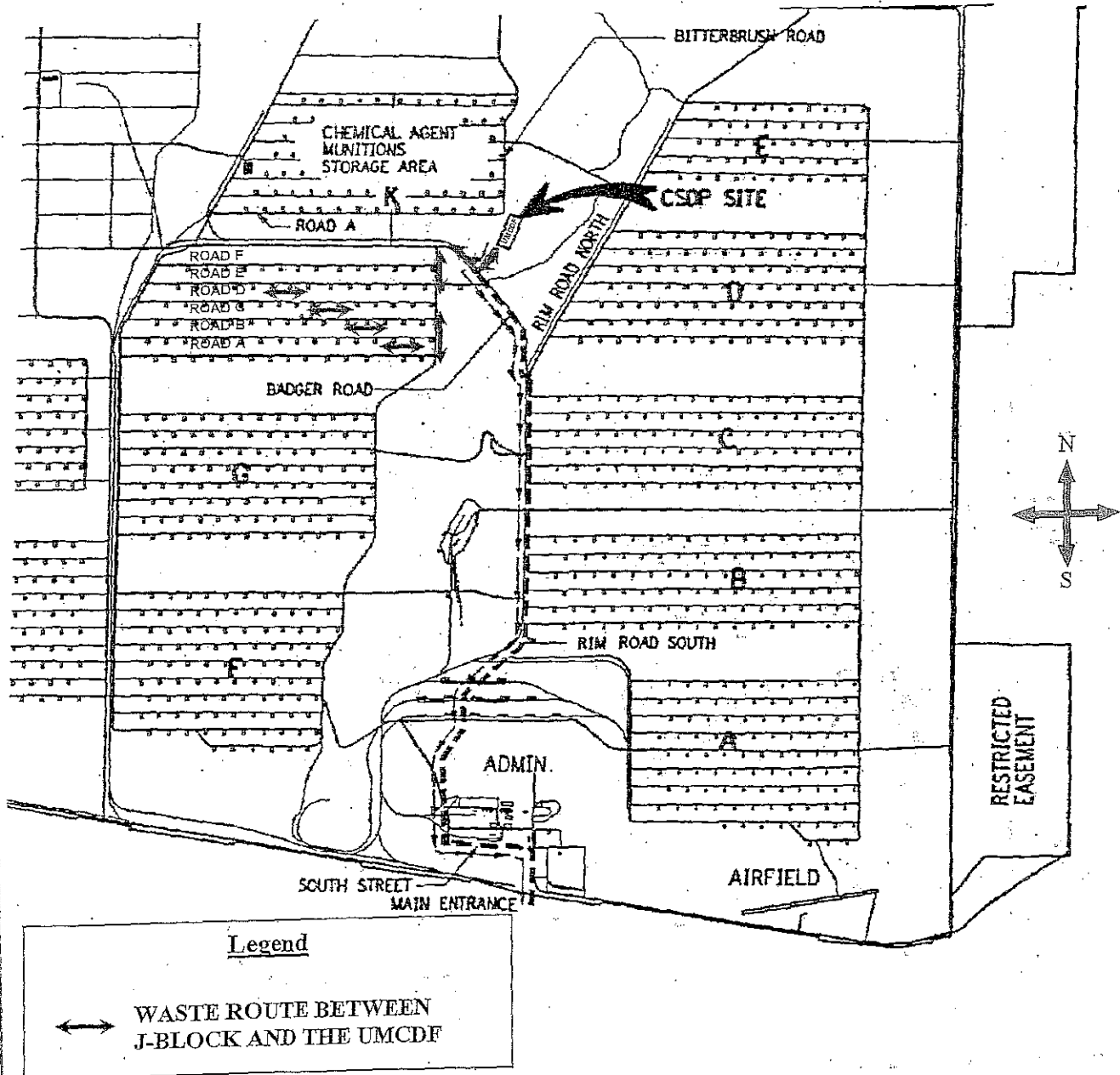


Figure B-4-12

Movement Between J-Block and the UMCDF Treatment Area

B-4-15

UMCDF.B-4

Approval Process: UMCDF Operations  
June 6-7, 2002 EQC Meeting

Table B-4-1  
 PROJECTED TRAFFIC DENSITIES\* AT THE UMCDF

Traffic Type	Units <sup>a</sup>	Projectiles			Bombs		Ton Containers	Mines M23	Spray Tank TMU-28/B
		Rockets M55	155-mm M121A1	8-in. M426	750# (MC-1)	500# (MK94)			
Munitions Truck <sup>b</sup>	Per day	37	20	16	22	22	10	24	12
<u>Supplies:</u>									
Dry Chemicals	Per week	1	1	1	1	1	--	--	--
Liquid Chemicals	Per week	1	3	3	3	3	4	1	3
Liquefied Petroleum Gas	Per month	1	1	1	1	1	1	1	1
<u>Waste:</u>									
Forklifts and/or Trucks:	Per day	4850	4244	3789	6971	3658	14042	4244	4749
DFS	Per day	3	1	1	--	--	--	2	--
DUN	Per week	1	1	1	1	1	1	1	1
MPF	Per day	--	12	10	4	3	4	--	3
Brine Salts <sup>c</sup>	Per day	1	2	2	4	2	8	1	3
Monitoring Support	Per day	25	25	25	25	25	25	25	25
Trash Pickup	Per day	1	1	1	1	1	1	1	1
<u>Other:</u>									
Personal Cars <sup>d</sup>	Per day	185	195	190	165	165	155	190	165
Operation and Maintenance Support	Per day	48	48	48	48	48	48	48	48
Security	Per day	24	24	24	24	24	24	24	24

NOTES:

<sup>a</sup>In terms of round trips or truck loads.

<sup>b</sup>Moved only during daylight hours.

<sup>c</sup>Salts from brine reduction operations.

<sup>d</sup>Personal vehicles will not enter the UMCDF ~~landfill area~~.

\*Projected densities for total trips at the UMCDF must be added vertically in the table since only one munition type is processed at a time.

DFS = Deactivation Furnace System

DUN = Dunnage Incinerator

MPF = Metal Parts Furnace

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1 The Army has developed an automated waste tracking system to follow munitions, bulk items, chemical  
2 agents, and treatment residues through the storage and treatment process at the UMCDF. At the time  
3 munitions and bulk items will be accepted they will be inventoried and entered into the automated system  
4 which will monitor the amounts and locations of the munitions and bulk items throughout the UMCDF.  
5 In addition, an automated graphic display will allow real-time tracking by facility personnel. Inventories  
6 and automated graphic displays will be closely monitored to ensure that only one type of chemical agent  
7 is managed at UMCDF at one time. Figure C-1-1 displays an example Munitions Inventory Record,  
8 which will be used in conjunction with the automated graphic display to further monitor and document  
9 the amount and location of munition and bulk item components throughout the UMCDF.

10  
11 Due to the nature of the nerve and mustard agents and the hazard and risk associated with chemical agent  
12 handling, the Army has developed specific decontamination criteria so that equipment and buildings are  
13 safe for their intended use. The Army criteria of chemical agent decontamination are 3X and 5X. The  
14 development, verification, and demonstrated effectiveness of the 3X or 5X decontamination methods can  
15 be found in the following documents which may be obtained upon request from the Army for review.  
16 Information and data pertaining to 3X decontamination may be found in the Testing and Evaluation  
17 Command (TECOM) 3X Report. Information and data pertaining to 5X decontamination may be found  
18 in the following documents: 5X Thermal Task Report by GA Technologies, Literature Review of  
19 Thermal Decomposition Studies of Agents GB, VX and HD by Southern Research Institute, and Test  
20 Report for 5X Agent Decontamination Verification, Test Report Number 32-57. For convenience, both  
21 the 3X and 5X decontamination criteria and associated levels are briefly discussed below.

22  
23 The decontamination level of 3X indicates that the equipment or facilities have been examined and  
24 surface decontaminated by approved procedures and that no contamination cannot be detected above the  
25 following levels as set forth in Department of the Army Pamphlet (DA PAM) 385-619, Toxic  
26 Chemical Agent Safety Standards, March 31, 1997, Chapter 5, Section 5-1c, page 18 (Attachment  
27 C-4).

Agent	Concentration
GB	0.0001 mg/m <sup>3</sup>
VX	0.00001 mg/m <sup>3</sup>
HD	0.003 mg/m <sup>3</sup>

29  
30 by appropriate instrumentation, test solutions, or visual inspection on easily accessible surfaces or in  
31 concealed housings. Applying the 3X criterion to waste involves bagging or other containerization  
32 of the waste, allowing the containerized waste to reach equilibrium conditions, then analyzing the  
33 enclosed headspace and 3X items may be handled or operated by chemical agent-related personnel,  
34 without restriction, except that the items may only be heated or disassembled in an area having

<sup>3</sup> All figures are located at the end of this section.

1 engineering controls including ventilation. At a minimum, an approved Standing Operating Procedure  
2 (setting forth the specific operational limitations, precautions to be observed, and chemical agent  
3 monitoring necessary to ensure safety) will be available and decontamination will be performed under the  
4 direction of the certifying official.

5  
6 5X decontamination indicates that the equipment or facilities have been completely decontaminated, are  
7 free of hazard, and may be released for general use or to the general public. Munitions, bulk items  
8 (bombs, spray tanks), and scrap metal will be considered decontaminated to the 5X level by holding metal  
9 to at least 1,000°F for a minimum of 15 minutes.

10  
11 All items certified as 5X are documented using the Department of the Army Form Tag DD-2271. This tag  
12 identifies the item as meeting the requirements of 5X decontamination verified by the certifying  
13 signatures of the Decontaminating Supervisor and Inspecting Safety Officer's Representative. The form  
14 is a carbonless duplicate with one tag accompanying the item and the other, the original, remaining in the  
15 operating contractor's records. In addition, when 5X items are shipped off facility, a photocopy of the  
16 2271 form is attached to the manifest. The file for the 5X item is closed when the completed manifest is  
17 returned to the generator by the receiving facility. A copy of this manifest is filed with the original 2271  
18 form for the item. Attachment C-4 includes additional information concerning 5X items: Department of  
19 Defense Standard, DOD 6055.9-STD, DOD Ammunition and Explosives Safety Standards,  
20 July 1999, Section C.11.6.4, pages 11-9 and 11-10, 202 and 203, and Army Regulation, AMC R 385-131,  
21 Chapter 5, pages 5-1 and 5-2, DA PAM 385-61, "Toxic Chemical Agent Safety Standards," March 31,  
22 1997, Chapter 5, Section 5.1.c, page 18; information regarding the identification and marking of  
23 chemical agent decontamination materials/waste; and guidance on disposal of 3X wastes.

24  
25 To support the 5X criteria, kinetic evaluations have been performed to determine whether it is necessary  
26 to incinerate materials for at least 15 minutes. The kinetic calculations indicate that the current 5X  
27 decontamination definition as applied to the rotary retort is scientifically sound. Section D-1 summarizes  
28 these data and calculations are presented that show the effectiveness of incinerating the solid residues at  
29 1,000°F for 15 minutes.

30  
31 The Metal Parts Furnace will be continuously monitored for operating temperature and the residence time  
32 for metal parts. The Automatic Continuous Air Monitoring System and Depot Area Air Monitoring  
33 System will be used at the discharge shroud to monitor for chemical agent. Air monitoring will be  
34 performed during all demilitarization operations.

35  
36 The following sections provide detailed chemical and physical analyses of the wastes to be managed at  
37 the UMCDF according to the treatment and storage unit(s) in which they are managed. Section C-1a  
38 describes containerized wastes, Section C-1b discusses wastes in tanks, Section C-1e describes wastes



ATTACHMENT C-4

- DOD Department of Defense Standard, DOD 6055.9-STD, CHAPTER 11 (PP. 11-9 AND 11-10); DOD Ammunition and Explosives Safety Standards, July 1999, Section C11-6.4, pages 202 and 203
- ARMY REGULATION, AMC-R-385-131, CHAPTER 5 (pp. 5-1); Department of the Army Pamphlet DA PAM 385-61, Toxic Chemical Agent Safety Standards, March 31, 1997, Section 5-1.c, page 18
- Johnston Atoll Chemical Agent Disposal System Report Identification and Marking of Chemical Agent Decontaminated Materials/Waste;
- Safety Concerns and Guidance on Disposal of 3X Wastes

Att C-4-1

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Excerpt From DOD **Department of Defense Standard**  
DOD 6055.9-STD, CHAPTER 11 **DOD Ammunition and Explosives Safety Standards**  
**July 1999, Section C11.6.4, pages 202 and 203**

Att C-4-3

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DoD 6055.9 STD, July 1999

#### C11.6.4. Labeling and Posting of Hazards

C11.6.4.1. Signs and labels to warn personnel of hazards of chemical agents are required for work areas, for containers of chemical agents, for contaminated clothing and equipment, and for identification of restricted-use areas.

C11.6.4.2. When opportunity for agent contamination exists, equipment, tools, or other items shall be marked, tagged or segregated to indicate degree of decontamination undergone or that the facility or item never has been exposed to chemical agents, whichever is appropriate.

C11.6.4.2.1. An agent symbol with a single "X" indicates the item has been partially decontaminated of the indicated agent. Further decontamination processes are required before the item is moved or any maintenance or repair is performed without the use of chemical protective clothing and equipment. This degree generally shall be applied to the item as it stands in place after being used and subjected only to routine cleaning after use.

C11.6.4.2.2. An agent symbol with three "Xs" indicates that the item has been surface decontaminated by locally approved procedures, bagged or contained in an agent-tight barrier, of sufficient volume to permit sample air to be withdrawn without being diluted with incoming air, and that appropriate tests or monitoring have verified that concentrations of 0.0001 mg/m<sup>3</sup> for agent GB, 0.00001 mg/m<sup>3</sup> for agent VX, 0.003 mg/m<sup>3</sup> for H or L, or (Unmasked worker AEL values for other covered chemicals) do not exist. Monitoring is not required for completely decontaminated and disassembled parts that are shaped simply (no crevices, threads, or the like) and are made of essentially impervious materials (such as simple lab glassware, and steel gears).

C11.6.4.2.3. An agent symbol with five "Xs" indicates an item has been decontaminated completely of the indicated agent and may be released for general use or sold to the general public. An item is decontaminated completely when the item has been subjected to procedures that are known to completely degrade the agent molecule, or when analyses, approved by the DDESB, have shown that the total quantity of agent is less than the minimal health effects dosage as determined by the Office of the Surgeon General of the Army.

C11.6.4.3. Rooms containing or suspected of having been contaminated with agents shall be marked (near each entrance) at all times to indicate the level of contamination to be expected by entering personnel. This requirement does not apply to magazines.

C11.6.4.3.1. **5R - No Agent Hazard.** An agent symbol with five "Rs" means that all previously contaminated surfaces are decontaminated and analyzed to demonstrate the absence of residual agents. A room sealed (ventilation turned off) for at least 4 hours at a temperature of at least 70 degrees Fahrenheit prior to sampling that shows an agent vapor concentration less than the 8-hour TWA concentration for unmasked workers is considered "5R."

C11.6.4.3.2. **4R - Controlled Agent Vapor Hazard.** An agent symbol with four "Rs" means that all previously contaminated surfaces are decontaminated by locally approved procedures, and air sampling indicates agent concentrations less than the 8-hour TWA(s) for unmasked workers. The air is sampled (at a temperature of 70 degrees Fahrenheit or greater) with the normal ventilation system operating.

C11.6.4.3.3. **3R - Contained Agent Hazard.** An agent symbol with three "Rs" indicates that any agents are in configurations that, if left undisturbed, should prevent agent vapor or contact hazards.

C11.6.4.3.4. **2R - Agent Vapor Hazard.** An agent symbol with two "Rs" indicates that any agents are in configurations which, if left undisturbed, prevent contact hazards.

C11.6.4.3.5. **1R - Agent Hazard.** An agent symbol with one "R" indicates the possibility of agent contact or vapor hazards, or agents in singly contained configurations that may leak. This includes rooms being used for operations that may cause agents to be released from engineering controls due to unforeseen accidental causes such as in routine laboratory operations in fume hoods.

#### C11.6.5. **Emergencies**

C11.6.5.1. In case of accidental release of an agent that may result in personnel exposure, all nonessential and unprotected personnel shall evacuate immediately. Contaminated areas must be decontaminated, as appropriate, to applicable Table C11.T1. AELs before normal operations are resumed.

Excerpt From ARMY REGULATION AMC R 385-131, CHAPTER 5 Department of the Army  
Pamphlet DA PAM 385-61, "Toxic Chemical Agent Safety Standards"  
March 31, 1997, Section 5-1c, page 18

Att C-4-7

Approval Process: UMCDF Operations  
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## Chapter 5 Decontamination and Disposal

### 5-1. Decontamination

The decontamination of personnel and items (for example, equipment and facilities) requires that procedures be established to ensure proper personnel training and accomplishment of desired results.

a. When equipment, tools, or other items or materials come into contact with liquid agent they will be marked, tagged or segregated to indicate the degree of decontamination undergone. Items or materials which are known or reasonably believed to present a chemical agent contact or vapor hazard as a result of air monitoring will be marked to identify their level of decontamination.

b. The fact that items or materials have been in the presence of agent vapor does not automatically result in the item or materials being contaminated with chemical agent. Vapor exposure may warrant a marking indicating the item or materials have not been contaminated (see symbol "0" zero).

c. The following guidelines apply only to items or materials which have a solid physical state:

(1) An agent symbol with a single "X" indicates the item has been partially decontaminated of the indicated agent. Further decontamination processes are required before the item is moved or any maintenance or repair is performed without the use of chemical protective clothing and equipment. This degree generally shall be applied to the item as it stands in place after being used and subjected only to routine cleaning after use.

(2) An agent symbol with three "Xs" (XXX) indicates that the item has been surface decontaminated by locally approved procedures, bagged or contained in an agent-tight barrier (plastic bags may be used if they have been tested and found to be effective for the purpose), of sufficient volume to permit sample air to be withdrawn while minimizing dilution with incoming air, and/or appropriate tests/monitoring have verified that concentrations above 0.0001 mg/m<sup>3</sup> for agents GA/GB, 0.00001 mg/m<sup>3</sup> for agent VX, 0.003 mg/m<sup>3</sup> for H or L, or 0.00003 mg/m<sup>3</sup> for agent GD (Unmasked worker AEL values for other covered chemicals) do not exist. Monitoring is not required for completely decontaminated and disassembled parts that are shaped simply (no crevices, threads, or the like) and are made of essentially impervious materials (such as simple lab glassware, and steel gears).

(3) An agent symbol with five "Xs" (XXXXX) indicates an item has been decontaminated completely of the indicated agent and may be released for general use or sold to the general public in accordance with all applicable federal, state, and local regulations. An item is decontaminated completely when the item has been subjected to procedures that are known to completely degrade the agent molecule, or when analyses, submitted through MACOM and DA channels for approval by the DDESB, have shown that the total quantity of agent is less than the minimal health effects dosage as determined by The Surgeon General. 5X condition must be certified by the commander or designated representative. One approved method is heating the item to 538 degrees C (1000 degrees F) for 15 minutes. This is considered sufficient to destroy chemical agent molecules.

(4) An agent symbol with "0" (zero) indicates an item, though located in an area with liquid agent and/or agent vapor, has not been contaminated (e.g., it does not present an agent contact or vapor hazard).

(5) When situations such as metallurgical investigations require testing at locations outside the installation, the item will be disassembled and exposed to moderately high temperatures long enough to decompose agent to compounds of lesser toxicity. A temperature of 177°C (350°F) for 4 hours is considered sufficient to decompose agent. Samples will be taken to assure vapor concentrations do not exceed 0.0001 mg/m<sup>3</sup> for agents GA/GB, 0.00001 mg/m<sup>3</sup> for agent VX, 0.003 mg/m<sup>3</sup> for H or L or 0.00003 mg/m<sup>3</sup> for agent GD. After test data is obtained, material will be decontaminated to XXXXX levels for release from Government control or placed in approved storage as XXX status. Such testing will be accomplished

only at Government installations and under an SOP concurred in by the installation responsible for the item.

d. Identification of decontaminated equipment, materials, and facilities. DD Form 2271 (or equivalent) and physical marking will be used to identify decontaminated equipment, materials, and facilities. Items designated as XXX that are stored in secure areas need not be marked as long as surrounding fences or entrances to buildings in which the items are stored, are locked and adequately marked. Locally approved weather resistant tags may be attached to XXX items which are stored outside. All tags will be numbered and the tag number recorded on DD Form 2271.

e. Decontamination of personnel, equipment, and facilities is as follows:

(1) Equipment decontamination (metal or other nonporous materials). Appropriate tests will be conducted to assign the equipment to a level of decontamination described in 5-1c above.

(a) X items must be handled or stored as contaminated using adequate engineering control measures and/or protective clothing.

(b) 3X items may be handled or operated by agent-related personnel, without restriction except that the items may only be heated or disassembled in an area having appropriate engineering controls to include ventilation. Maintenance or disassembly of such items will be accomplished by personnel knowledgeable in agent symptomatology, agent characteristics, and in facilities equipped with appropriate safeguards to control potential hazards associated with handling 3X items. 3X equipment may be transported under Government bill of lading or by commercial carrier, such as UPS, Federal Express, provided that,

(2) The material is shipped signature secure.

(3) The exterior of the shipping container is clearly marked CONTAINS XXX MATERIAL, TO BE OPENED BY AUTHORIZED PERSONNEL ONLY.

(4) Certification of decontamination is provided by the shipper and accompanies the shipment. The certification should be enclosed in an envelope located on the outside of each package shipped.

(a) Items decontaminated to 3X level may not be released from Government control. Some items may be released from Government control if all Federal, State, and local provisions have been met and approval is granted by the MACOM Commander. The shipper will maintain an audit trail of the documents. Nonrelated personnel should not be allowed routine access to 3X items.

(b) 5X and 0 items may be handled, operated, or released from Government control in accordance with federal, state, and local regulations.

(c) Clean conditional material may be handled under controlled conditions when suitable precautions are taken for decomposition products. Material will not be released from Government control until decontaminated to the 5X level except for shipment by regulated carrier in accordance with applicable DOT requirements for general cargo.

(5) Facilities decontamination. Prior to release of agent operating facilities or storage facilities for Army operations of a nonrelated nature, the facilities must be certified to the 3X level of decontamination. Monitoring will be conducted with ambient temperature of 16 degrees C (60 degrees F) or above, with the area closed, and for at least three 8-hour sample periods (appropriate for the monitoring equipment being used). Periods may be consecutive or nonconsecutive. Monitoring will be consistent with the installation/activity approved monitoring plan. All equipment which has been in contact with an agent will be removed.

(6) Combustible waste contaminated with agents will be disposed of by burning in a controlled emission incinerator. If the waste has not been decontaminated to 3X levels prior to incineration this material is required to be incinerated in equipment which is designed to assure destruction of all toxic agent and control emission of gaseous products to ensure compliance with air pollution control standards and applicable federal, state, and local environmental regulations.

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1 D-1 PROCESS DESCRIPTION [40 CFR 270.15, 270.16, 270.19; OAR 340-105-0014,  
2 340-104-0001]  
3

4 The Army has initial plans to demilitarize M55 rockets containing nerve agent GB and M55 rockets  
5 containing nerve agent VX over the first operational period of the Umatilla Chemical Agent Disposal  
6 Facility (UMCDF), which is currently scheduled to start in July 2000. It is anticipated that GB bulk items  
7 may be coprocessed with GB rockets, followed by VX bulk items with VX rockets, followed by any  
8 remaining bulk items, mines, and projectiles.  
9

10 Munitions and bulk items destined for demilitarization, as designated by the Department of the Army,  
11 will be removed from the Umatilla Chemical Depot's (UMCD's) Chemical Limited Area at a rate  
12 compatible with the operating schedule of the UMCDF.  
13

14 Figure B-1-3 presents the overall flow of the munitions and bulk items demilitarization process. The  
15 munitions and bulk items to be demilitarized, and their anticipated throughputs are listed in Table D-1-1<sup>1</sup>.  
16 When the munitions and bulk items are delivered to the Container Handling Building, the physical  
17 location and custody responsibility will be transferred to the demilitarization program. The items will be  
18 removed from the Army's inventory of chemical agents and munitions on receipt of the destruction  
19 certificate.  
20

21 The maximum inventory of munitions and bulk items in the Unpack Area of the Munitions  
22 Demilitarization Building is described in Table D-1-2. The maximum inventory of munitions and bulk  
23 items in the Container Handling Building is described in Table D-1-3. Munitions and bulk items will be  
24 removed from the UMCD's Chemical Limited Area and placed in specially designed onsite transport  
25 containers prior to movement. The movement of the munitions and bulk items within the UMCD's  
26 Chemical Limited Area will be observed by guards, and an emergency response vehicle will be available.  
27

28 The heart of the UMCDF will be the Munitions Demilitarization Building, which will contain five  
29 incinerators supported by equipment designed to prepare the stockpiled munitions and bulk items for  
30 deactivation and detoxification. An important, integral feature of the demilitarization process will be that  
31 each type of munition and bulk item will have its own individually tailored, computer-controlled program  
32 for management of the destruction process. Each munition/bulk item-specific automatic control software  
33 package will contain extensive interlocking emergency response mechanisms to ensure that safe,  
34 complete destruction takes place in a controlled environment throughout the demilitarization process. An  
35 essential feature of the UMCDF is that no portion of the munitions or bulk items, excluding onsite  
36 transport containers, will be permitted to leave the UMCDF until after complete thermal detoxification of  
37 all materiel occurs in one of the incinerators. If chemical agent is detected in an onsite transport container  
38 during routine chemical agent monitoring before the onsite transport container is opened (accomplished in  
39 the Unpack Area), the onsite transport container will be sent to the Toxic Maintenance Area room 12-118.  
40 Once inside the Toxic Maintenance Area, workers wearing Demilitarization Protective Ensembles will  
41 open the onsite transport container and unload the contents. The munitions will be transported to the  
42 processing locations on the second floor using the conveyor system. The empty onsite transport container

<sup>1</sup> All tables are located at the end of this section.

1 will be decontaminated and the decontamination solution and rinse water will be collected in sump 153  
2 located in room 12-118. An excess of liquid will be utilized during the decontamination and rinse  
3 operation. The sump contents will be pumped to the spent decontamination holding tanks for feed to the  
4 secondary chamber of the Liquid Incinerator. The decontaminated onsite transport container will then be  
5 monitored to ensure no chemical agent is present before transfer to the storage yard for reuse.

6  
7 ~~Residues from demilitarization activities and nonprocess waste may be placed in permitted storage~~  
8 ~~in J-Block prior to further treatment. The maximum inventory of waste in J-Block storage is~~  
9 ~~shown in Table D-1-14.~~

10  
11 Drawings UM-1-G-504 through UM-1-G-511 (included in Attachment D-3) present floor plan diagrams  
12 for the two floors of the Munitions Demilitarization Building. The pollution abatement systems for the  
13 incinerators will be adjacent to the building and are shown in drawings UM-6-G-502 through  
14 UM-6-G-512. The Brine Reduction Area will be in the Process and Utility Building and is shown in  
15 Drawing UM-2-G-502. A brief summary of the major components of the demilitarization process is  
16 provided below. A detailed description of the munitions handling and demilitarization process is  
17 provided in Section D-2.

#### 18 19 D-1a Control Room Configuration

##### 20 21 Introduction

22  
23 The Control Room is designed to include:

- 24
- 25 • Shift Supervisor Station
- 26 • Lead Operator/Incinerator Operator Station
- 27 • Incinerator Operator Stations (2)
- 28 • Demilitarization Operator Stations (2)
- 29 • Demilitarization/Incinerator Operator Station
- 30 • Demilitarization Protective Ensemble Team Monitor Stations (3)
- 31 • Shift Supervisor Office
- 32 • Operator Office
- 33 • Engineer/Maintenance Stations (2)
- 34 • Process Data and Acquisition System Room
- 35 • Multipurpose Room.
- 36

37 All incinerators will be controlled and monitored at the Incinerator Operator Stations, and from the Shift  
38 Supervisor Station when necessary (i.e., during projectile campaign). There will not be separate Control  
39 Rooms for each incinerator.

40  
41 Response times for monitoring and operator action in emergency situations are indicated in  
42 Section D-1B-01 of Attachment D-3.

1 individual filter unit. The application of the worst case agent exposure, as defined in  
2 Assessment of Carbon Filter System Performance (MITRE, September 1993), shows  
3 these three filter banks have more than sufficient capacity to adsorb the agent from the  
4 worst case inlet agent concentration.

- 5
- 6 • When chemical agent is detected above the TWA concentration after the fourth bank, the  
7 affected filter unit will be removed from service immediately and all carbon banks in the  
8 affected unit will be replaced.
- 9
- 10 • After initiation of chemical agent operations, all MDB and Laboratory carbon filter banks  
11 shall be changed out prior to commencing a new chemical agent campaign.
- 12

13 The ventilation filter system is shown in drawings UM-1-H-2 through UM-1-H-6 and UM-1-H-31 of  
14 Attachment D-3.

15

16 As a result of an incident at the Chemical Agent Munitions Disposal System in January 1987, the design  
17 and operation of the ventilation filter system was investigated by a committee of scientists with expertise  
18 in carbon adsorption. A report of the findings and recommendations of this committee was completed in  
19 April 1988. The findings and recommendations have been incorporated into the design of the filter  
20 systems. The recommendations for improving the quality control of construction and operation of these  
21 systems have been incorporated into the overall U.S. Army Chemical Materiel Destruction Agency  
22 Quality Assurance Program Plan.

#### 23

#### 24 J-Block Storage Ventilation

#### 25

26 Storage igloos in J-Block have passive ventilation consisting of two vents open to the atmosphere  
27 when IX secondary waste is not stored within the igloos (Figure D-1-1). The vent locations in each  
28 igloo are shown in Figure D-1-2. One vent is located at the rooftop in the rear of each igloo and the  
29 second is in the front door of the structure. Intake and exhaust vent openings are the same size,  
30 which prevents accelerated air velocity in front of the vent openings. Each vent has a sparkscreen  
31 and a fusible link with a counterweight that will close the vent in the case of a fire (Figure D-1-1). If  
32 a fire occurs, the fusible link will melt, and the counterweight will close the vent. Both intake and  
33 exhaust vents are lowered to prevent wind penetration. Vents have an effective area of four square  
34 feet (Hercules, 1994).

35

36 Studies have shown that, with vents open and doors closed, air is evacuated from an igloo at a rate  
37 of 25 to 30 ft<sup>3</sup>/min (cfm). With the door open, the rate increases to 40 cfm. Given an average igloo  
38 size of about 26,800 ft<sup>3</sup>, a complete exchange of air occurs in about 15 hours. When the igloo is  
39 filled and 30 to 40 percent of the volume is used, air exchange takes less time.

40

1 With the exception of igloos designated for storage of wastes with higher levels of agent  
2 contamination (those wastes classified by the Army as 1X) the storage igloos in J-Block will be  
3 operated with open vents. J-Block igloos storing 1X waste will be operated with the vents sealed  
4 and closed to prevent the possibility of agent migration. The interior air of igloos storing 1X waste  
5 will be monitored weekly or prior to any entry to determine if leakage of agent has occurred from  
6 stored contaminated 1X waste. In the unlikely event that agent is detected through headwall  
7 monitoring, the air in the rear vent stack downstream of the closed rear vent will also be monitored  
8 to determine if any release has occurred. After monitoring of the stack air and prior to any entry, a  
9 powered carbon filter will be installed on the igloo and the contaminated interior air will be  
10 exhausted through the filter to capture the contamination.

11  
12 D-1k Secondary Containment Vestibules

13  
14 Each of the MDB and Laboratory carbon filter units will include a secondary containment vestibule. The  
15 vestibules will contain noninsulated factory-painted metal siding, bonded polyvapor barrier and  
16 galvanized sheet metal liners. For the MDB filter units (HVC-FILT-101 through HVC-FILT-109), the  
17 vestibules will be approximately 35'-6" long by 5'-0" wide by 10'-6" high. The vestibules for the  
18 Laboratory filter units (LAB-FILT-301 and LAB-FILT-302) will be approximately 26'-0" long by 5'-0"  
19 wide by 10'-6" high. Each vestibule will be equipped with two outside air intakes located on the roof of  
20 the vestibule. A prefilter, a high-efficiency particulate air (HEPA) filter, and a high-efficiency gas  
21 adsorber (HEGA) filter, which contains carbon, will be connected to the air intakes.

22  
23 The MDB filter units contain ten (10) access doors along the length of the units. The vestibules will  
24 enclose doors 6, 7, 8, 9, and 10. These doors provide access to the prefilters, the upstream HEPA filter  
25 bank, and carbon banks 1, 2, and 3. Chemical agent concentration is not expected downstream of carbon  
26 bank 2 because a scheduled changeout of the carbon will occur after breakthrough of carbon bank 1.  
27 Door 6 also provides access between carbon banks 2 and 3. Each vestibule will contain one entry door  
28 located at the end of the unit, near door 10.

29  
30 The Laboratory filter units contain six (6) access doors along the length of the units. The vestibules will  
31 enclose doors 3, 4, 5 and 6. These doors provide access to the prefilters, the upstream HEPA filter bank  
32 and carbon banks 1 and 2. Chemical agent concentration is not expected downstream of carbon bank 2  
33 because a changeout of the carbon will occur after breakthrough of carbon bank 1. Door 3 provides  
34 access between carbon banks 1 and 2. Each vestibule will contain one entry door located at the end of the  
35 unit near door 6.

36  
37 Each vestibule will also be equipped with receptacles and provisions for monitoring with an Automatic  
38 Continuous Air Monitoring System (ACAMS) and a Depot Area Air Monitoring System (DAAMS) to  
39 detect the presence of chemical agent. The monitoring of a vestibule will depend on whether the filter  
40 unit is online or offline. When the filter unit is online, the vestibule will be sampled continuously with a

Table D-1-12  
PREDICTED KINETIC SATURATION CAPACITIES OF CARBON FOR CHEMICAL  
AGENT VAPORS

---

<u>Chemical Agent Vapor</u>	<u>Kinetic Saturation Capacity at 1% Penetration (99% Adsorption) (grams chemical agent/grams carbon)</u>
CNCl	0.393
HCN	0.124
H	0.538
DMMP (Chemical Agent Simulant)	0.479
GA	0.455
GB	0.454
GD	0.437
GE	0.445
GF	0.480

---

- 1  
2 NOTE: The only chemical agent included in this table that is stored at the UMDA **UMCD** is GB.  
3  
4 SOURCE: "Prediction of Equilibrium Gas Adsorption by Activated Carbon," Edgewood Arsenal  
5 Technical Report EATR 4578, L. A. Jonas, November 1971.

1  
2  
3  
4  
5  
6

Table D-11

MAXIMUM WASTE INVENTORIES IN LEADOCK STORAGE

---

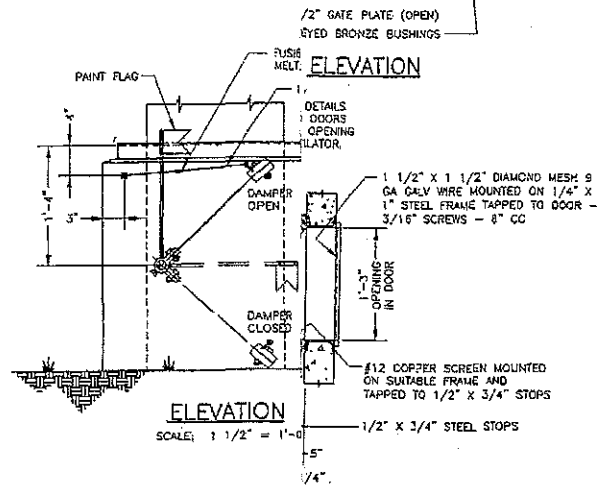
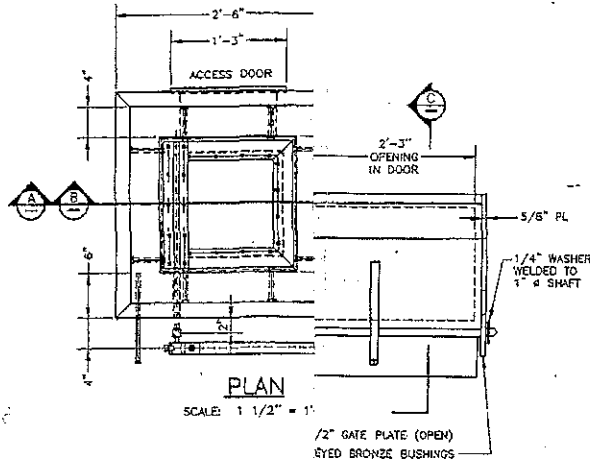
Volume of waste per cell	21,780	gallons
Number of cells	56	
Total volume of waste	1,263,240	gallons

---

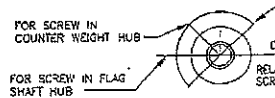
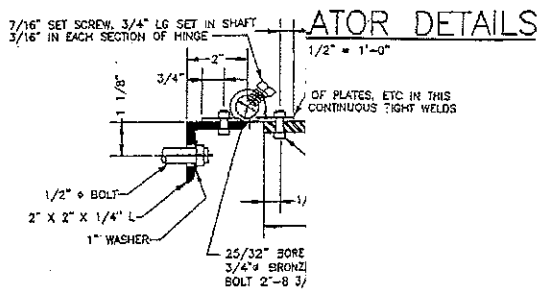
D-1d-11

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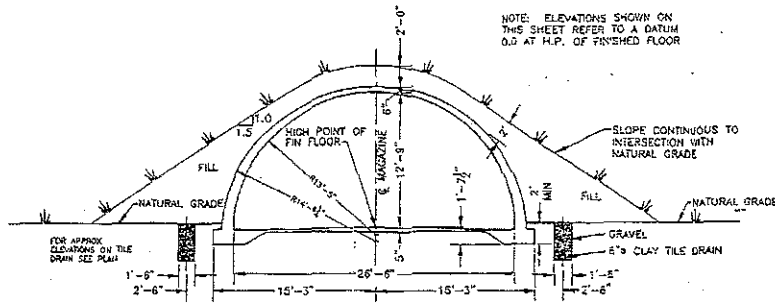
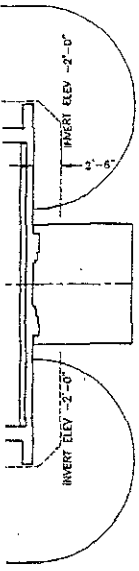


**SECTION C-C**

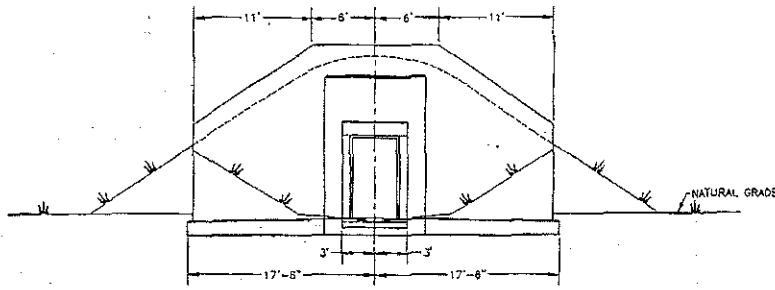


DETAIL of UMCDF Permit Application

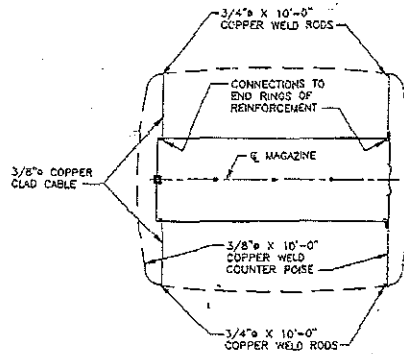
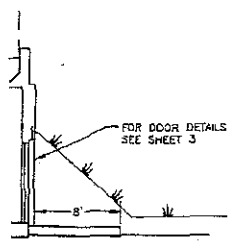
1  
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**TRANSVERSE SECTION**  
 SCALE: 3/16" = 1'-0"



**FRONT ELEVATION**  
 SCALE: 3/16" = 1'-0"

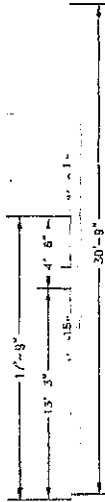


**GROUNDING SYSTEM**

**LIGHTNING PROTECTION**  
 SCALE: 1" = 20'

Source: Figure D-1-6, Sheet 1, of UMCD Permit Application

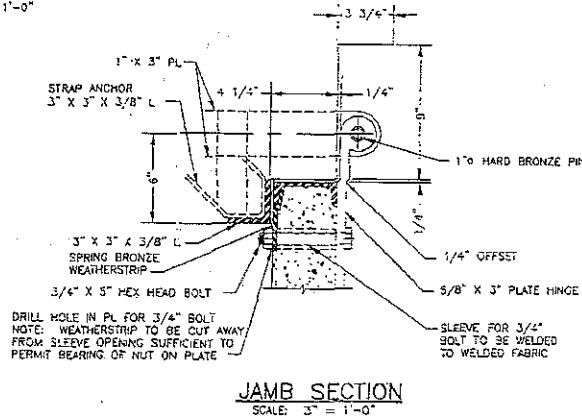
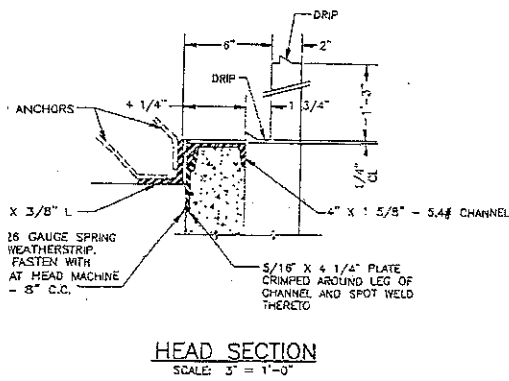
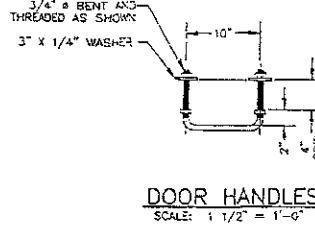
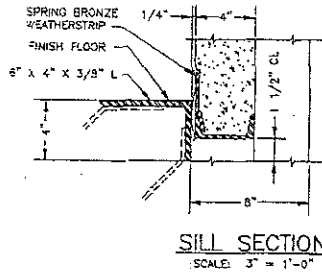
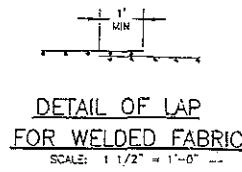
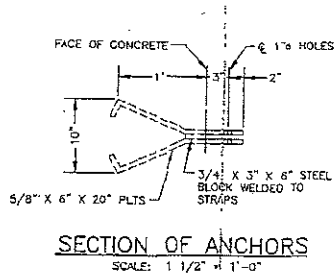
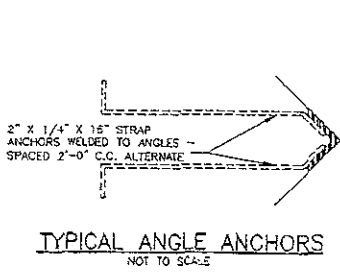
J-Block Igloo Storage Units



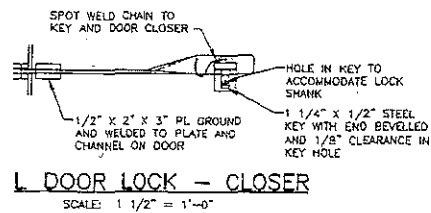
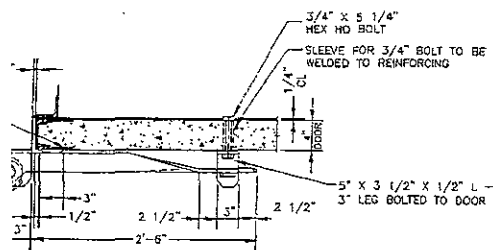
er igloo headwall and run inside gutter along igloo  
ve gutter and run to a stand at each sampling  
pends lines about 12 inches above floor.

6, Sheet 2, of UMCD Permit Application

1  
2  
3



**REINFORCED CONCRETE DOOR SECTIONS**



Source: Figure D-1-6, Sheet 3, of UMCD Permit Application

Block Inlets Storage Units

Approval Process: UMCDF Operati  
 June 6-7, 2002 EQC Meeting

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1 D-3 CONTAINERS [40 CFR 264.170, 270.15; OAR 340-104-0001, 340-105-0014]

2

3 Hazardous wastes that will be stored in containers at the Umatilla Chemical Agent Disposal Facility  
4 (UMCDF) include ~~but are not limited to~~: salt formed by brine reduction; ash from the incinerators;  
5 residue from the Deactivation Furnace System cyclone; Dunnage Incinerator baghouse residue; slag from  
6 the secondary chamber of the Liquid Incinerators; explosives, propellants, and chemical agents contained  
7 in bulk items and munitions; spent filters (prefilters, high-efficiency particulate air filters) from the  
8 Munitions Demilitarization Building, Container Handling Building, and Laboratory Building ventilation  
9 systems; ~~and~~ spent carbon from filters for the incinerators pollution abatement systems, Deactivation  
10 Furnace System cyclone, ventilation system, and the agent holding tank and agent surge tank, ~~and other~~  
11 ~~waste streams identified in the Waste Analysis Plan~~. Discarded Demilitarization Protective ensemble  
12 suits will be placed in containers for shipment offsite to an approved hazardous waste treatment, storage,  
13 ~~or disposal facility. storage pending determination of appropriate treatment and disposal options~~.

14

15 There will be sixteen ~~several~~ storage areas within the UMCDF: the Residue Handling Area within the  
16 Process and Utility Building, the Toxic Maintenance Area in the Munitions Demilitarization Building  
17 (three areas), ~~and the East and West Storage and Unpack Areas in the Container Handling Building, and~~  
18 ~~selected J-Bloc igloos~~. The remaining areas within the Munitions Demilitarization Building (MDB)  
19 include: the Munitions Demilitarization Building Unpack Area, the Explosive Containment Vestibule,  
20 the two Explosive Containment Rooms, the Upper and Lower Buffer Storage Areas, the Upper and  
21 Lower Munitions Corridors, and the Munitions Processing Bay. These areas within the MDB provide for  
22 the storage of munitions and bulk items, as necessary, for sustaining process operations or in the event of  
23 process upset conditions. Such storage is limited to intact or drained munitions and bulk items; leakers  
24 will be immediately removed on identification and relocated to the Toxic Maintenance Area (TMA).  
25 These areas also allow for the storage of munitions rejected from the demilitarization process for the  
26 purpose of accumulating ONC-load quantities to facilitate handling and transport. The Residue Handling  
27 Area will handle only hazardous wastes that have no free liquids. The wastes to be stored in this area will  
28 include brine salts, incinerator ash, slag, Deactivation Furnace System cyclone residue, and Dunnage  
29 Incinerator pollution abatement system baghouse residue. The anticipated storage time in this area is  
30 generally less than 2 weeks, but in all cases will be less than 90 days. The spent filter media will be  
31 stored in the Toxic Maintenance Area inside the Munitions Demilitarization Building for a short time  
32 (less than 90 days). Leaking munitions and bulk items may be stored within the Toxic Maintenance "C"  
33 Area and within the Decontamination Area. The storage time within the TMA for leaking munitions and  
34 bulk items will be minimal since the items will be expedited for processing. The munitions and bulk  
35 items containing the chemical agents, explosives, and propellants will be stored in the Container Handling  
36 Building prior to processing in the Munitions Demilitarization Building. The munitions and bulk items  
37 will be stored in the remaining portions of the Munitions Demilitarization Building while awaiting further  
38 processing or, in the case of projectile rejects, while awaiting shipment back to the permitted storage  
39 igloos, as necessary, for processing at a later date. The anticipated storage time for the bulk items and

D-3a-1

UMCDF-D-3

1 munitions in the MDB storage areas will normally be 1 to 5 days, but may be considerably longer during  
2 the process upset or outage. ~~Potentially agent-contaminated secondary waste may be stored in~~  
3 ~~permitted J-Block storage units prior to further treatment. Nonprocess waste and residues of~~  
4 ~~thermal processing may also be stored in J-Block prior to transport off-site for disposal. Waste will~~  
5 ~~typically be stored in J-Block for greater than 90 days.~~  
6

7 All secondary-waste containers in the Residue Handling Area and Toxic Maintenance Area will be  
8 managed in accordance with the generator requirements of 40 CFR 262 as less than 90 day storage areas  
9 and thus no permit is being sought for these container storage areas. The containers in the East and West  
10 Storage Areas of the Container Handling Building will be managed and permitted according to  
11 40 CFR 264, Subpart I. Munitions and bulk items stored within the MDB are hazardous waste and must,  
12 therefore, be managed in accordance with the applicable requirements of 40 CFR 264, specifically, 40  
13 CFR 264, Subpart DD. The Container Handling Building Unpack Area and permitted areas within the  
14 Munitions Demilitarization Building will be managed in accordance with 40 CFR 264, Subpart DD.  
15

16 This section, together with Section D-1 of the permit application, is intended to fulfill the requirements on  
17 container design.  
18

19 D-3a Containers with Free Liquids and/or F020, F021, F022, F023, F026, and F027 Wastes  
20 [40 CFR 270.15(a), 264.175(b) and (d); OAR 340-104-0001, 340-105-0014]  
21

22 The munitions and bulk items containing chemical agents are considered containers (per the definition of  
23 container in 40 CFR 260.10). These items will be stored in the Container Handling Building and  
24 Munitions Demilitarization Building and will be managed per the requirements of 40 CFR 264.175 and  
25 40 CFR 264.1100. None of the F-listed wastes identified above are present at the UMCDF. ~~Some of the~~  
26 ~~waste stored in J-Block may contain free liquids, and will be stored in accordance with~~  
27 ~~40 CFR 264.175.~~  
28

29 D-3a(1) Description of Containers [40 CFR 270.15(a)(1), 264.175(b)(1), 264.1100; OAR 340-104-0001,  
30 340-105-0014]  
31

32 The following hazardous wastes (chemical agents) will be stored in the Container Handling Building and  
33 Munitions Demilitarization Building:  
34

- 35 • Nerve Agent (VX)
  - 36 • Nerve Agent Sarin (GB)
  - 37 • Mustard Agent (HD).
- 38

1 These chemical agents are contained in rockets, land mines, projectiles, bombs, spray tanks, and ton  
2 containers. Each container (i.e., munition and bulk item) is described in detail in Attachment C-1, "Data  
3 Sheets and Diagrams for Munitions Types." The munitions and bulk items were manufactured to safely  
4 contain and store the chemical agents.

5  
6 In accordance with the requirements of 40 CFR 264.1100, for all permitted areas within the MDB,  
7 excluding the Unpack Area and the Toxic Maintenance Area "C" Airlock, primary containment for the  
8 storage of munitions and bulk items is provided by the coated concrete flooring, walls, and sump systems.

9  
10 The Department of the Army uses onsite transport containers or overpack containers (for spray tanks) to  
11 store and transport the munitions and bulk items for the time period immediately preceding  
12 demilitarization activities. The munitions and bulk items are placed in the onsite transport container at  
13 the Umatilla Chemical Depot (UMCD) Chemical Limited Area. From there, the onsite transport  
14 containers will be transported to the Container Handling Building (Figure.D-3-1)<sup>1</sup> as the first step in the  
15 demilitarization process. Spray tanks are too large for the onsite transport containers; therefore, the spray  
16 tanks will be placed in overpack containers and will be shipped to and stored at the Container Handling  
17 Building in these overpack containers.

#### 18 19 Basic Design Parameters, Dimensions, and Materials of Construction

20  
21 The onsite transport containers and overpack containers are designed to provide vapor-tight containment  
22 of chemical agent. All seals on the containers are impervious to chemical agents and are able to  
23 withstand the decontamination solutions that will be used during the demilitarization activities. The  
24 onsite transport container and any components mounted on the surface will fit within an envelope that is  
25 8.5 feet by 8.5 feet by 12 feet long. The combined weight of the onsite transport container or overpack  
26 container and munition holding trays will not exceed 26,000 pounds. The materiel handling system in the  
27 Container Handling Building will be sized to handle a 40,000-pound maximum load. This design allows  
28 for an 18,000-pound onsite transport or overpack container, a 3,000-pound spreader bar for hoisting  
29 purposes, and 8,000 pounds of munitions, and exceeds the required safety factor of 1.25. The onsite  
30 transport container must withstand a fire and protect the combustible and hazardous materials inside the  
31 onsite transport container from an all-engulfing 1,500°F fire. The onsite transport container is sized to be  
32 compatible with the doors, materiel handling equipment, and clearances in the Container Handling  
33 Building and in the Toxic Maintenance Area of the Munitions Demilitarization Building.

34  
35 The Container Handling Building unloading area design was based on having two onsite transport  
36 containers or two overpack containers per transport truck.

37  

---

<sup>1</sup>All figures are located at the end of this section.

1 The Container Handling Building unloading area and road system within the UMCD are based on the  
2 following truck design (American Association of State Highway and Transportation Officials, semitrailer  
3 combination vehicle, WB-50):  
4

<u>Characteristic</u>	<u>Dimension (feet)</u>
Wheel base	50.0
Front Overhang	3.0
Rear Overhang	2.0
Overall Length	55.0
Overall Width (without overpack)	8.5
Overall Width (with overpack)	12.0
Height (for overhead clearances)	15.0
Minimum turning radius	45.0
Trailer Maximum Bed Height	4.0

5

6 The Container Handling Building will be a steel-frame building with insulated metal roofing and  
7 insulated siding panels. The Container Handling Building will be divided into six functional areas, as  
8 described in the following paragraphs.  
9

10 The unloading areas will provide four separate, covered locations, each sized for one 55-foot flatbed  
11 truck. There are two areas, one on the east end and one on the west end of the Container Handling  
12 Building, that will handle multimunition onsite transport containers and overpack containers. In addition,  
13 the area on the north side of the Container Handling Building will be a general purpose area. The fourth  
14 area, near the west lift, will support simultaneous munitions processing. Empty onsite transport  
15 containers and overpack containers will be loaded on the transport trucks at these same four locations.  
16

17 The East and West Container Storage Areas in the Container Handling Building (see Figure D-3-1) will  
18 be sized to store 48 onsite transport containers in two bays, each with four rows of onsite transport  
19 containers that are stored six deep.  
20

21 The Conveyor Corridor provides an enclosed structure for the transport of the onsite transport containers  
22 and overpack containers from the East and West Storage Areas to the Container Handling  
23 Building-Munitions Demilitarization Building Transition Area. The Conveyor Corridor will house a  
24 pneumatic roller track conveyor system, which will be used to position the full onsite transport/overpack  
25 containers for loading into the east lift and will be used to reposition the empty containers after offloading  
26 from the west lift.  
27

28 The Container Handling Building-Munitions Demilitarization Building Transition Area will provide the  
29 means to raise the containers to the second floor of the Container Handling Building, near the Unpack



1 Area. This area will also provide: a means to monitor the containers for chemical agent leaks, an unpack  
2 station, and a means to return the empty containers to ground level for temporary storage in the Container  
3 Handling Building.

4  
5 The Mechanical Equipment Room and Electrical Room are sized to hold the mechanical and electrical  
6 equipment, respectively, for the Container Handling Building. There will be a receiving area located in  
7 the East and West Storage Areas to provide a location for the personnel to handle and process the  
8 inventory storage transfer documents.

9  
10 The floor of the Container Handling Building and Munitions Demilitarization Building will be  
11 constructed of reinforced concrete. The floor of the second level of the Container Handling  
12 Building-Munitions Demilitarization Building Transition Area will be metal deck with concrete. The  
13 number of contraction and expansion joints will be kept to a minimum. All joints between floors and  
14 walls will be covered and sealed.

15  
16 There will be permanent chemical agent monitors located in the Container Handling Building storage  
17 areas and throughout the Munitions Demilitarization Building. Chemical agent detection monitors can be  
18 brought to the outside of the building for intermittent use as required.

19  
20 The base of the Container Handling Building will consist of an interior floor slab, column foundations,  
21 and exterior-grade beams. The base of the Munitions Demilitarization Building will consist of coated  
22 concrete floor slabs and coated sump systems. All base elements are designed for the most severe vertical  
23 and lateral load combination as specified in TM5-809-1, "Load Assumptions for Buildings."

24  
25 Selected J-Block igloos will be used for permitted storage of potentially agent-contaminated  
26 secondary waste resulting from UMCDF activities. Igloo construction details are shown in Figure  
27 D-1-2. Storage igloos are semi-circular concrete structures with 25 x 80-foot floors and a ceiling  
28 elevation of 12'-9" at the center. The arched ceilings are constructed with #0 copper arch cables  
29 spaced approximately 20 feet apart. Each igloo is covered with membrane waterproofing about 1  
30 8" of earth fill and a final four-inch gravel layer to stabilize the fill. The concrete floor slopes  
31 slightly from the center line to one-foot gutters on each side of the structure. All concrete surfaces  
32 are finished smooth. Each igloo is also equipped with Type A and B lightning arrester air terminals  
33 connected by terminal clamps to a corresponding arch cable (Figure D-1-2). Each arch cable is, in  
34 turn, bronze-welded to a #4 copper ground-wire system running the length of the igloo. The  
35 ground-wire also connects to each footing bar and door frame in the structure. All storage igloos  
36 have two air vents which remain open to the atmosphere in normal operation. With the exception  
37 of igloos designated for storage of wastes classified by the Army as 1X ("higher level waste" as  
38 defined in the UMCDF Hazardous Waste Permit), the storage igloos in J-Block will be operated  
39 with open vents. J-Block igloos storing 1X waste will be operated with the vents sealed and closed.

1 to prevent the possibility of agent migration. The interior air of igloos storing 1X waste will also be  
2 monitored weekly or prior to any entry to determine if leakage of agent has occurred from stored  
3 containerized 1X waste. If agent is detected through headwall monitoring, the air in the rear vent  
4 stack downstream of the closed rear vent will be monitored to determine if any release has  
5 occurred. After monitoring of the stack air and prior to any entry, a powered carbon filter will be  
6 installed on the igloo and the contaminated interior air will be exhausted through the filter to  
7 capture the contamination.

8  
9  
10 Liquid waste containers used in J Block will include 30-, 55-, 85-, and 110-gallon drums, as well as  
11 other containers as defined by 40 CFR 260.10. Spill containment will be provided by storage of all  
12 liquid waste containers on spill pallets.

13  
14 Description of Floor Design to Promote Drainage and Container Protection from Accumulated Liquids

15  
16 An 8-inch reinforced-concrete floor slab is required to satisfy maximum stationary and vehicular live  
17 loads in accordance with TM5-809-12, "Concrete Floor Slabs on Grade Subjected to Heavy Loads." The  
18 floor slab in the East and West Unloading Areas will be sloped to a collection trench and will be  
19 underlain by 4 inches of capillary water barrier and a vapor barrier to protect against hydraulic pressure  
20 pockets and seepage. The reinforced concrete floor slabs in the Munitions Demilitarization Building will  
21 be sloped a minimum of one percent to area collection sumps and trenches. Items stored in the Container  
22 Handling Building Unpack Area and Toxic Maintenance Area "C" Airlock are stored inside of on-site  
23 containers or spray tank overpacks. The munitions and bulk items are elevated within these devices in  
24 order to protect them from accumulated liquids.

25  
26 All building columns will be supported on spread foundations that will be 3 feet below grade for frost  
27 protection. The columns are designed to satisfy an allowable soil-bearing pressure of 3,000 pounds per  
28 square foot on in-situ subgrade and 2,500 pounds per square foot on engineered fill for uplift, overturning,  
29 and lateral displacement resistance. The critical combination of these factors is used for column design.

30  
31 A grade beam, or curtain wall, will be provided along the building perimeter to a depth of 3 feet to protect  
32 the floor slab from frost. All wall panels will be supported on 5-inch curbs. The curbs will include  
33 water-stop construction. All emergency exits will have a 1-inch inverted swell to provide continuous  
34 curbing.

35  
36 The floor and walls of each igloo are concrete and meet in a fitted joint at floor level to prevent  
37 leakage into the igloo. The concrete floor has a 1/5-inch slope from the floor centerline toward each  
38 sidewalk. Gutters run the length of the igloo in the floor along each sidewalk and drain to the  
39 building exterior. In addition, all waste will be stored on pallets to facilitate transport and preclude

1 ~~contact with any standing liquids. All containers containing free liquids will be stored on spill~~  
2 ~~pallets capable of containing ten percent (10%) of the container volume or the volume of the largest~~  
3 ~~container, whichever is greater.~~

4  
5 D-3a(2). Container Management Practices [40 CFR 264.171, 264.172, 264.173; 264.174, 264.1100  
6 270.15(a)(1); OAR 340-104-0001, 340-105-0014]

7  
8 Munitions and bulk items destined for demilitarization are designated by the Department of the Army.  
9 Designated munitions and bulk items will be transported to the Container Handling Building from the  
10 Chemical Limited Area at a rate compatible with the operating schedule of the UMCDF.

11  
12 Information on inspections and aisle space can be found in Section F-2b, "Container Inspection," and  
13 Section F-3b, "Aisle Space Requirements," respectively.

14  
15 All containers (for example, munitions, bulk items, onsite transport containers, overpacks) present in the  
16 Container Handling Building and Munitions Demilitarization Building will contain the same chemical  
17 agent, because the UMCDF will process only one chemical agent at a time. Movement of each type of  
18 munition and bulk item from the Container Handling Building is detailed in Section D-2b,  
19 "Demilitarization Process Flow Descriptions."

20  
21 There will be no incompatible wastes at the ~~Container Handling Building~~ UMCDF, since only one  
22 chemical agent will be processed at any given time. The chemical agents and associated explosives to be  
23 temporarily stored in the Container Handling Building and Munitions Demilitarization Building are  
24 reactive. All containers holding reactive wastes will be located at least 50 feet from the UMCDF property  
25 line.

26  
27 The Container Handling Building will be used to store munitions and bulk items prior to demilitarization  
28 operations in the Munitions Demilitarization Building. The permitted areas within the Munitions  
29 Demilitarization Building will be used for the temporary storage of munitions and bulk items in the event  
30 of process upset, for the temporary storage of items rejected from the demilitarization process, and for the  
31 handling and processing of leaking munitions or bulk items within the Toxic Maintenance Area. At the  
32 UMCDF Chemical Limited Area, the munitions, bombs, and ton containers will be packed into onsite  
33 transport containers (or the spray tanks into overpacks) that will be repositioned on transport trucks.  
34 Each transport truck will have one or two onsite transport containers (and/or overpacks) that will be  
35 transported to the Container Handling Building in convoys of transport trucks. The number of convoys  
36 per day and the loading configuration in the onsite transport containers (and/or overpacks) will differ with  
37 the type of munitions and bulk items and the corresponding munition processing rates.

38

1 When the transport convoy enters the UMCDF perimeter, the convoy will move to one of the two  
2 unloading areas at the Container Handling Building. The transport trucks will move forward at each  
3 unloading area to align the onsite transport container or overpack container with the centerline of the  
4 bridge crane that has been designated to receive the containers being unloaded. The operators will secure  
5 the containers to the bridge crane using a spreader bar. This method will allow container connections to  
6 be made remotely, without the operator having to climb on top of the container to attach slings or  
7 fasteners.

8  
9 The offloading crew will control the flow of containers so that the containers will be managed on a  
10 first-in/first-out basis. In accordance with 40 CFR 264.174, the contents of those containers that remain  
11 in the Container Handling Building for more than 1 week will be monitored on a weekly basis for  
12 chemical agent leakage through a chemical agent monitoring port in the onsite transport/overpack  
13 containers. In accordance with 40 CFR 264.1100, the permitted areas of the Munitions Demilitarization  
14 Building will be inspected, at least once every seven days, and the results of this inspection will be  
15 entered in the facility's operating record. The inspection of the permitted portions of the Munitions  
16 Demilitarization Building will be performed in accordance with the Inspection Schedule (Attachment 3 of  
17 the Permit).

18  
19 Container deliveries to the Container Handling Building will be limited to daylight hours. Container  
20 movement from the Container Handling Building to the Munitions Demilitarization Building continues  
21 24 hours per day, 5 days per week.

22  
23 Containers will be taken from a designated row in the Container Handling Building and positioned onto  
24 the pneumatic roller track conveyor to move from the storage areas through the Container Handling  
25 Building Conveyor Corridor to the east lift in the Transition Area. The east lift will move the container to  
26 the second floor of the Container Handling Building-Munitions Demilitarization Building Transition  
27 Area. From here, the container will be moved in sequence onto three conveyors in series. The first  
28 conveyor will be for offloading the container from the overpack lift. The second conveyor will be for  
29 monitoring the container with a chemical agent monitor. The third conveyor will be for unpacking the  
30 contents of the container.

31  
32 From the Container Handling Building Unpack Area the items are transferred to the Munitions  
33 Demilitarization Building Unpack Area for introduction into the demilitarization process.

34  
35 Mines and rockets are processed through the Explosive Containment Vestibule and into the Explosive  
36 Containment Rooms where the agent is drained and sent directly to the agent collection system. The mine  
37 and rocket energetics and bodies are then processed and sent directly, via feed chutes, to the Deactivation  
38 Furnace for immediate processing. Projectiles are transferred through the Explosive Containment  
39 Vestibule to the Explosive Containment Room where the nose closure and energetics are removed. The  
40 projectiles are then transferred to the Upper Munitions Corridor or Upper Buffer Storage Area for transfer

1 projectiles are then transferred to the Upper Munitions Corridor or Upper Buffer Storage Area for transfer  
2 to the Munitions Processing Bay. Agent is removed from the projectiles in the Munitions Processing Bay  
3 and then the projectile bodies are transferred, via lift, to the Lower Buffer Storage Area while awaiting  
4 final processing in the Metal Parts Furnace. Bulk items are conveyed through the Explosive Containment  
5 Vestibule on bypass conveyors to the Upper Buffer Storage Area or Upper Munitions Corridor for  
6 transfer into the Munitions Processing Bay. Bulk items are drained of agent in the Munitions Processing  
7 Bay and then are transferred, via lift, for further processing in the same manner as the projectile bodies,  
8 described above.

9  
10 A total of 58 igloos in J-Block may be used for permitted storage of potentially agent-contaminated  
11 secondary waste, residues of thermal processing, and nonprocess waste. Nonprocess waste will be  
12 stored in accordance with 40 CFR 268.50. Considering pallet size and aisle space limitations, each  
13 igloo can accommodate a maximum of 21,780 gallons of containerized waste. Some of these igloos  
14 are currently unused, but will be subjected to monitoring, inspection, and labeling requirements  
15 when they are used to store hazardous waste. Prior to placement in J-Block, the exterior of all  
16 containers holding agent-contaminated waste will be air monitored to determine whether they are  
17 emitting detectable concentrations of agent. Only waste with container exterior levels below the 3X  
18 limit as defined in Section C-1 will be stored in J-Block. Containerized wastes from processes or  
19 areas of the facility with no potential for agent contamination are not subject to exterior air  
20 monitoring for agent contamination.

21  
22 J-Block igloos containing stored containerized 1X waste will be monitored on a weekly basis  
23 and/or prior to any entry using Real-Time Analytical Platforms (RTAPs). Monitoring will be  
24 conducted in accordance with Attachment F-1 of the Application.

25  
26 Wastes stored in permitted J-Block igloos will be segregated as follows:

- 27 ■ Nonprocess waste will not be stored in the same J-Block igloos as process waste.
- 28 ■ Single-agent-contaminated waste will be segregated (stored in separate igloos) by chemical  
29 agent type.
- 30 ■ Multiagent-contaminated wastes will be stored together and segregated from single-agent-  
31 contaminated wastes.
- 32 ■ Wastes with higher and lower levels of agent contamination, designated 1X and 3X, will be  
33 segregated from one another.
- 34 ■ Process wastes stored pending further treatment will be segregated from residues of  
35 thermal treatment destined for off-site transport.

36  
37 Inspection frequency and parameters for J-Block are detailed in Attachment 3 of the Permit.  
38 Visual inspections are conducted weekly, with results noted on a weekly inspection form. Waste  
39 containers will be labeled as described in Section D-3c. Wastes from any leaking or damaged  
40 containers will be overpacked or repackaged in another container as defined in 40 CFR 260.10.

41

1 ~~An inventory record of hazardous waste stored in J-Block will be maintained. The inventory will~~  
2 ~~be updated when new waste is received or existing waste is removed. The inventory will contain~~  
3 ~~information about the quantity and location of all hazardous wastes and containers located in~~  
4 ~~J-Block. Inventory records and inspection forms will be maintained as part of the UMCDF~~  
5 ~~Operating Record.~~

6  
7 ~~Containers are tracked by the recording of the unique identification number labeled on each~~  
8 ~~container on the inventory sheet for the igloo in which it is placed. When necessary, containers will~~  
9 ~~be transported by truck or forklift in accordance with local standing operating procedures.~~

10  
11 D-3a(3) Secondary Containment System Design and Operation

12  
13 Plans and dimensions for the Container Handling Building are given in Attachment D-3. The Container  
14 Handling Building will provide two levels of containment for hazardous wastes. The munition or bulk  
15 item shell is the primary containment device and secondary containment is provided by the on-site  
16 containers and spray tank shipping/overpack containers. Leak detection will be accomplished by  
17 chemical agent monitoring through a port in the onsite transport container or overpack container shell, as  
18 applicable. ~~Secondary containment for liquid wastes stored in J-Block is the spill pallet.~~

19  
20 Secondary containment for the permitted portions of the Munitions Demilitarization Building, excluding  
21 the Unpack Area and Toxic Maintenance Area "C" Airlock, is provided by coated concrete vaults in  
22 which the primary containment (sump liners) is placed. The coated concrete vaults are provided with  
23 leak-detection equipment to allow detection of liquids in the event the primary containment is breached.

24  
25 As the items within the Toxic Maintenance Area "C" Airlock are stored within on-site containers and the  
26 munition or bulk item (container) is assumed to be leaking, the on-site container or overpack is designated  
27 as the primary containment and secondary containment is provided by the coated floor and sump system.  
28 Within the Munitions Demilitarization Building Unpack Area primary containment is provided by the  
29 munition or bulk item shell and secondary containment is provided by the coated flooring and sump  
30 system. The secondary containment sumps are provided with level indicators that provide a means to  
31 detect any leakage from the primary containment into the secondary containment.

32  
33 D-3a(3)(a) Requirement for the Base or Liner to Contain Liquids

34  
35 The on-site containers serve to fulfill this requirement provided that the seal along the bottom portion of  
36 the on-site container door has been demonstrated to be properly installed and the door is properly closed  
37 and torqued. The configuration of the door seal is equivalent to the floor expansion joints commonly  
38 found in permitted storage areas designed to hold containerized liquids.

39

1 The spray tank shipping/overpack containers are configured such that there are no seals or bolts located  
2 along the bottom portion of the container. The base of the overpack container is constructed of steel with  
3 no seals, gaskets, or bolts located along the lower portion. Dissecting the spray tank overpack on the  
4 horizontal plane is a rubber gasket and 60 bolts which provide an impervious seal when the top half of the  
5 container is mated with the bottom half of the container.

6  
7 All collection trenches and sumps will incorporate the Munitions Demilitarization Building standard  
8 details of metal liners and epoxy coating and will be constructed in accordance with the "Concrete and  
9 Building Construction and other Work" specifications in Section D-4B-09 of Attachment D-3. All floor  
10 surfaces and curbing, including the storage and unloading areas of the Container Handling Building, will  
11 be coated with a chemically-resistant epoxy coating prior to receiving waste for storage.

12  
13 These areas will be inspected in accordance with the Inspection Schedule and maintained free of  
14 significant cracks, gaps, or chips in protective coating. Any deterioration of coating or containment  
15 capability will be repaired in a timely manner and recertified in accordance with the requirements of  
16 40 CFR 264.1100.

17  
18 Further, the Container Handling Building will be constructed so that the lowest elevation in the building  
19 will be higher than the elevation outside the building. In addition, the munitions and bulk items will be  
20 stored in onsite transport or overpack containers so that the potential for run-on contacting the containers  
21 is minimized. The floor of the East and West Unloading Areas will be sloped approximately 1/8-inch per  
22 linear foot to provide proper drainage. The floor will be constructed of concrete. Curbing, collection  
23 trenches, and sumps, with double-wall interconnecting piping as shown on Drawings UM-07-L-1, -2, and  
24 -4 in Attachment 3, will be used to collect washdown. Double-wall transfer piping will be installed to  
25 allow for the future installation of a thaw system in support of the HE ton-container campaign, if chemical  
26 demilitarization operations at other facilities deem a thaw system will be needed during cold weather  
27 conditions. If the liquid contained in the sumps/trenches is below the detection limit of 20 parts per  
28 billion for GB/VX and 200 parts per billion for HD, then it is determined to be chemical agent free. **Spill**  
29 **pallets will be used for liquid waste stored in J-Block gloos to collect any liquid leakage or spillage**

30  
31 D-3a(3)(b) Elevation of Containers for Protection from Contact with Accumulated Liquids

32  
33 Secondary containment in the Container Handling Building will be provided by the on-site containers and  
34 spray tank shipping/overpack containers. Although not part of the secondary containment system, there  
35 will also be one sump for the collection trench system and four equipment sumps in the West Unloading  
36 Area. The four equipment sumps are pits where hydraulic conveyor drives will be located. There will  
37 also be a collection trench with a sump and four equipment sumps in the East Unloading Area. The East  
38 and West Storage Areas will each have a series of sloped trenches that will run the length of the container  
39 rows and feed into a main trench. The West Unloading Area sumps will be connected with double-wall  
40 piping to the series of sloped trenches in the West Storage Area to allow gravity drainage into the West  
41 Storage Area main trench. In a similar manner, the East sumps and trenches will also be connected with  
42 double-wall piping to allow drainage into the East Storage Area main trench. The main trench in the East

1 Storage Area will be sloped and will lead to a sump. The West Storage Area main trench will be  
2 connected with double-wall piping to allow gravity drainage into the East Storage Area main trench  
3 sump. There will be other sumps in the Container Handling Building that will be associated with  
4 munitions handling. There will be one sump in each lift (east lift and west lift) on the first floor of the  
5 Container Handling Building. There will be one sump in the Combined Processing Unloading Dock and  
6 another sump in the Transition Area prior to entering the east and west lifts. There will be two sumps on  
7 the second floor of the Container Handling Building in the Unpack Area. There will also be a sump  
8 located in the Mechanical Equipment Room for the east and west lifts that will collect any spilled fuel oil.

9

10 The floor in each unloading area will be sloped 1/8-inch per linear foot to a trench that is 84 feet long.

11 ~~Any liquid found in J-Block spill pallets will be transferred into containers for characterization and~~  
12 ~~storage.~~

13

14 The on-site containers support the munitions on an elevated platform (differing in general design based on  
15 the munitions loaded) such that leakage will be collected in the bottom portion of the container and away  
16 from direct contact with accumulated liquids. Typically, the munitions are elevated to a height equal to  
17 approximately one-third to one-half (1/3 to 1/2) the diameter of the on-site container.

18

19 The spray tank overpack/shipping containers are designed such that the lower portion of the container  
20 functions as a cradle and is capable of elevating the munition up off the bottom liner. Typically, the spray  
21 tank is elevated above the containment system bottom approximately six inches.

22

23 Primary containment for the majority of the permitted areas within the Munitions Demilitarization  
24 Building is provided by the coated concrete flooring and sump liners. The floors are sloped a minimum  
25 of one percent, in accordance with the requirements of 40 CFR 264.1100, and promote drainage to area  
26 sumps. The area sumps are provided with dedicated pumps and level indication in order to provide an  
27 adequate means of detecting and removing any accumulated liquids in a timely manner. Secondary  
28 containment for these areas is provided by the coated concrete vaults in which the primary liners are  
29 placed. The vaults are provided with leak-detection instrumentation and are sloped to promote drainage.

30

31 The remaining permitted areas within the Munitions Demilitarization Building include the Unpack Area  
32 and the Toxic Maintenance Area "C" Airlock. Primary containment for the "C" Airlock is provided by  
33 the on-site container or spray tank overpack. Primary containment for the Unpack Area is provided by  
34 the munition or bulk item shell. The stored items are elevated within the overpacks or stored on pallets to  
35 ensure protection from any accumulated liquids. Secondary containment for these areas is provided by  
36 coated flooring and lined sump systems. The flooring is sloped a minimum of one percent to promote  
37 drainage and the sumps are provided with level indicators and dedicated pumps in order to detect and  
38 remove any accumulated liquids in a timely manner.

39



1 D-3a(3)(c) Containment System Capacity [40 CFR 270.15(a)(3), 264.175(b)(3); OAR 340-104-0001,  
2 340-105-0014]  
3

4 Containment for the chemical agent in the munitions and bulk items will be provided by the capacity of  
5 the on-site containers and spray tank overpack/shipping containers.  
6

7 The largest container to be stored in the on-site containers is the ton container. Each ton container  
8 contains 170 gallons of agent. The UMCDF permitted maximum is two ton containers per on-site  
9 container. Thus, each on-site container is capable of holding 340 gallons of agent. Ten percent of the  
10 total volume is 34 gallons. Therefore, the containment system must be capable of containing the volume  
11 of the largest container, or 170 gallons of agent.  
12

13 The internal volume of the on-site container is approximately 227.24 cubic feet, or 1,699.87 gallons. The  
14 external volume of each ton container is approximately 35.03 cubic feet, or approximately 262.04 gallons.  
15 Multiplying the external volume of the ton containers by 2 (2 ton containers per on-site container) yields a  
16 total external volume of 524.08 gallons. Due to the geometry of the ton containers (front end being  
17 concave), this is a conservative estimate.  
18

19 The remaining volume for use as secondary containment is equal to the on-site container internal volume  
20 (1,699.87 gallons) minus the 2 ton containers (524.08 gallons), or 1,175.79 gallons. Considering that less  
21 than 50 percent of the remaining capacity is occupied by the bracing and platform materials  
22 (conservatively estimated), then the actual capacity available for containment would be approximately  
23 587.90 gallons. This volume exceeds the minimum required containment volume (170 gallons) by  
24 approximately 246 percent.  
25

26 Each spray tank contains 1,356 pounds (160 gallons) of agent. The spray tanks are packaged individually  
27 into the overpack/shipping containers. Therefore, the containment must be capable of retaining the  
28 volume of the largest container, or 160 gallons of agent.  
29

30 Each overpack/shipping container is bisected on the horizontal plane. The 2 sections are bolted together  
31 in 60 places and sealed with a rubber gasket. For containment purposes, only the bottom portion of the  
32 container (below the rubber seal), is considered. The internal volume of the overpack/shipping container  
33 is approximately 337.11 cubic feet, or 2,521.76 gallons. Therefore, there is approximately 168.56 cubic  
34 feet, or 1,260.88 gallons, of containment space available below the rubber seal.  
35

36 The external volume of the spray tank is approximately 42.68 cubic feet or 319.27 gallons. This leaves  
37 approximately 941.61 gallons of actual capacity available for containment purposes below the rubber  
38 seal. Again, conservatively estimating that less than 50 percent of the remaining capacity is occupied by  
39 bracing and platform materials, then the actual capacity available for secondary containment would be  
40 approximately 470.80 gallons. This volume exceeds the minimum required containment volume (160  
41 gallons) by 194 percent.  
42

1 The capacities of the containment sumps within the Munitions Demilitarization Building are shown in  
2 Section D-4 of the Application. The permitted maximum number of munitions and bulk items within the  
3 Munitions Demilitarization Building at the UMCDF will not be exceeded at any time. Although liquids  
4 are not expected in the containment sumps, the containment provided by the flooring and sump systems  
5 within the Container Handling Building Unpack Area and the permitted areas of the Munitions  
6 Demilitarization Building provide adequate means to contain and remove any accumulated liquids in a  
7 timely manner. All sump systems are provided with level indicators and dedicated pumps in order to  
8 detect leakage in a timely manner and transfer any accumulated liquids to the Spent Decontamination  
9 System for further treatment.

10

11 The secondary containment spill pallets used for liquid waste containers stored in J-Block will have  
12 a capacity of at least ten percent (10%) of the container volume or the volume of the largest  
13 container, whichever is greater, as required by 40 CFR 175(b)(3).

14

15 D-3a(3)(d) Control of Run-On and Fugitive Dust Emissions [40 CFR 270.15(a)(4),  
16 264.175(b)(4), 264.1100; OAR 340-104-0001, 340-105-0014]

17

18 The design of the on-site containers and spray tank shipping/overpack containers is such that they prohibit  
19 any run-on since they are stored in a sealed configuration. Further, the Container Handling Building will  
20 be constructed so that the lowest elevation in the building will be higher than the elevation outside the  
21 building. In addition, the munitions and bulk items will be stored in onsite transport containers or  
22 overpack containers so that the potential for run-on contacting the munitions or bulk items will be  
23 minimized.

24

25 As the Munitions Demilitarization Building is a completely enclosed, self-supporting structure with  
26 controlled ventilation, fugitive dust emissions are not expected as a result of storing munitions and bulk  
27 items.

28

29 Design and construction details of the igloos (Figure D-1-2) prevent precipitation run-on from  
30 entering the igloos.

31

32 D-3a(3)(e) Removal of Liquids from Containment Systems [40 CFR 270.15(a)(5), 264.175(b)(5);  
33 OAR 340-104-0001, 340-105-0014]

34

35 All material will be removed from the containment systems in the Container Handling Building and  
36 Munitions Demilitarization Building daily or in as timely a manner as is necessary to prevent overflow  
37 of the collection system. Daily inspections and weekly testing of the containers in the Container  
38 Handling Building will also help implement the timely removal of any collected material. If a leak in a  
39 munition or bulk item (primary containment) is discovered, they will be prioritized over other munitions  
40 for processing. Upon discovery of a leaking on-site container or spray tank shipping/overpack container,  
41 the container will be removed from the storage area and transferred to the Toxic Maintenance Area for  
42 immediate unloading of its contents. If the on-site container is found to contain hazardous waste, the

1 container will not be returned to service until it has been decontaminated. All spray tank  
2 overpack/shipping containers will be used only once.

3  
4 The Munitions Demilitarization Building primary containment sumps will collect washdown liquids and  
5 decontamination liquids as part of routine operations, per design. Liquids collected in the primary sumps  
6 will be removed as soon as practicable, but, at a minimum, within 24 hours, as required by Module IV of  
7 the Permit. The secondary containment sumps/vaults will not be used for the collection of routine liquids,  
8 and every effort will be made to maintain these secondary containment areas free of liquids at all times.  
9 Inspections will be performed on a weekly basis in accordance with 40 CFR 264.1100 and Attachment 3  
10 of the Permit. The level indicators and leak detectors provide a constant indication to the UMCDF  
11 Control Room; and, in the event a leak is encountered, the Control Room would receive immediate  
12 indication of the accumulated liquids. Upon discovery of a leak into secondary containment, the area will  
13 be taken out of service, the accumulated liquids will be removed in a timely manner, and the necessary  
14 repairs to the primary containment will be made in accordance with 40 CFR 264.1100 and Module III of  
15 the Permit. The Permittee will also make the necessary notifications and provide the required written  
16 notifications and information per the requirements of 264.1100. In the event liquids are discovered in the  
17 secondary containment systems, the collected material will be sent to a spent decon tank for subsequent  
18 incineration.

19  
20 ~~Due to the use of spill pallets, liquids will not accumulate in J-Block. Any liquid found in J-Block~~  
21 ~~spill pallets will be transferred into containers for characterization and storage.~~

22  
23 D-3a(4) Requirements for Ignitable, Reactive, or Incompatible Wastes in Containers [40 CFR 264.176,  
24 264.177; OAR 340-104-0001]

25  
26 There are no incompatible wastes at the UMCDF ~~Container Handling Building~~, since only one chemical  
27 agent will be processed at any given time. The chemical agents and associated explosives to be  
28 temporarily stored in the Container Handling Building and Munitions Demilitarization Building are  
29 reactive. All containers holding reactive wastes will be located at least 50 feet from the UMCDF  
30 boundary. ~~Any incompatible wastes stored in J-Block will be kept separate in accordance with~~  
31 ~~40 CFR 264.177. Any ignitable or reactive wastes stored in J-Block will be located at least 50 feet~~  
32 ~~from the UMCDF boundary.~~

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1 D-3b Containers Without Free Liquids or F020, F021, F022, F023, F026, and F027 Wastes  
2 [40 CFR 270.15(b); OAR 340-105-0014]

3  
4 The brine salts formed during Brine Reduction Area operations will be packaged in lined collection  
5 containers that will each measure 3 feet by 3 feet by 3 feet and have a capacity of 2,000 pounds. The  
6 brine salts will then be transferred to a lined transportation container measuring 8 feet by 20 feet by 5 feet,  
7 contains 10 tons, and holds 20 cubic yards. This covered transportation container will be on wheels and  
8 will be backed off a truck by tilting the truck bed, and pulled onto a truck by winches. It will be used for  
9 the offsite disposal of brine salts to an approved hazardous waste treatment, storage, or disposal facility.

10  
11 The treatment residue from the incinerators will include residue (particulate matter) collected from the  
12 baghouse associated with the Dunnage Incinerator as well as ash from the incinerators. These wastes will  
13 be placed separately into collection containers measuring 5 feet by 5 feet by 4 feet with a capacity of 1  
14 ton. The ash and baghouse residues will be transferred to separate, lined and covered transportation  
15 containers, measuring 8 feet by 20 feet by 5 feet, that can contain 10 tons and hold 20 cubic yards. These  
16 covered transportation containers (similar to those previously described) will be used for the offsite  
17 shipment of ash and baghouse residue to an approved hazardous waste treatment, storage, or disposal  
18 facility.

19  
20 The Deactivation Furnace System cyclone residue will be tested for the presence of chemical agent,  
21 toxicity characteristic metals, explosives and propellants, reactivity, toxicity characteristic organics, free  
22 liquids, dioxins, and furans as discussed in Section C-2. If chemical agent is detected, the cyclone ash  
23 will be retreated in the metal parts furnace; otherwise, the residue from the Deactivation Furnace System  
24 cyclone will be collected in 55-gallon containers for storage and shipment offsite to an approved  
25 hazardous waste treatment, storage, or disposal facility and further treatment, as necessary.

26  
27 Slag will be generated from the secondary chamber of the Liquid Incinerators. The slag will be collected  
28 in refractory-lined 55-gallon drums. The drums of slag will be stored in the Residue Handling Area  
29 pending shipment to an approved hazardous waste treatment, storage, or disposal facility.

30  
31 Spent filter media (ventilation system filters and spent carbon) will be placed in lined collection  
32 containers measuring 3 feet by 3 feet by 3 feet with a capacity of 1 ton for storage in the Toxic  
33 Maintenance Area of the Munitions Demilitarization Building prior to thermal treatment in the Dunnage  
34 Incinerator.

35  
36 Wastes without free liquids shall have been demonstrated to not contain free liquids during initial  
37 processing operations by either generator knowledge or by application of the Paint Filter Liquids Test  
38 or the Free Liquids Test (SW-846 Methods 9095 and 9096, respectively) as specified in Section C-  
39 2 Attachment 2 of the Permit, "Waste Analysis Plan."  
40

D-3b-1

UMCDF.D-3

1 Description of Storage Area Design and Operation of Drainage and Removal of Liquids

2 [40 CFR 270.15(b)(2), 264.175(C)(1) and (2); OAR 340-105-0014]

3

4

Residue Handling Area

5

6 The UMCDF Residue Handling Area will be located at one end of the Process and Utility Building. The  
7 Residue Handling Area will be used for temporarily storing (less than 90 days) containers of brine salt,  
8 slag, and incinerator ash and residues. This area will not be a hazardous waste management unit to be  
9 permitted. The storage area and the containers will be managed according to the generator standards of  
10 40 CFR 262. The start date of accumulation will be placed on each container generated. All hazardous  
11 waste containers will be removed from the storage unit within a 90-day time limit for proper disposition.

12

13 The storage area will be designated and the storage areas marked. Waste stored in this area will not  
14 contain free liquids as determined through the "Waste Analysis Plan," outlined in Section C-2 of this  
15 permit application.

16

17 Normally, the brine salts from the Brine Reduction Area will be directly transferred from the lined  
18 collection containers to the lined, covered transportation container. The Residue Handling Area will have  
19 provisions to store collection containers in a container rack. This contingency storage area is expected to  
20 be used when the transportation container is awaiting shipment to an approved hazardous waste treatment,  
21 storage, or disposal facility.

22

23 The Residue Handling Area will be equipped with a container cooling area. This area will provide for  
24 containers of ash and residue material to cool before being transferred to the Dunnage Incinerator's or the  
25 Deactivation Furnace System's transportation containers or to large flexible intermediate bulk containers.  
26 The large flexible intermediate bulk containers have a volume of 70 cubic feet and will be used when the  
27 transportation container is being shipped offsite to an approved hazardous waste treatment, storage, or  
28 disposal facility.

29

30 Prior to storing any containers in the Residue Handling Area, the floors will be coated with a commercial  
31 epoxy sealant that will be compatible with the material being stored.

32

33 Brine salts, incinerator ash, and residues from the incinerators will be placed in collection containers at  
34 the site of waste generation. Upon arrival at the Residue Handling Area, the contents of the collection  
35 containers will be transferred to the transportation containers. The transportation containers will be  
36 removed (as they are filled) by a hazardous waste disposal contractor to an approved hazardous waste  
37 treatment, storage, or disposal facility.

38

39 The Residue Handling Area will provide storage space for transportation containers, and there will also be  
40 provisions for transferring the Deactivation Furnace System ash and Dunnage Incinerator ash and  
41 baghouse residue to large flexible intermediate bulk containers (with a volume of 70 cubic feet) prior to

1 placement in the transportation containers. The transportation containers will be lined with a disposable  
2 liner before the intermediate container will be placed into the transportation container.

3  
4 If ash or incinerator residues are too hot to allow immediate transfer, the collection containers will remain  
5 in the cooling area until the material can be transferred. It is estimated that cooling for up to 24 hours  
6 may be required. Once cool, incinerator ash and residues (except Deactivation Furnace System cyclone  
7 residues) will normally be transferred to the transportation containers or to large flexible intermediate  
8 bulk containers, which will then be placed directly in the lined transportation container as described  
9 above.

10  
11 Drums of slag will be brought in from the Slag Removal Systems at the Liquid Incinerators. These may  
12 also require cooling, which will occur as described above.

13  
14 Normally, the brine salts will be immediately weighed and transferred to the transportation containers  
15 upon their arrival in the Residue Handling Area. If the brine salt transportation container is not available,  
16 there will be room to store brine salt collection containers in a container rack against the wall at the  
17 Residue Handling Area.

18  
19 Spent Filter Media Storage Area

20  
21 The UMCDF's short term (less than 90 days) Spent Filter Media Storage Area will be located in the Toxic  
22 Maintenance Area in the Munitions Demilitarization Building. The Toxic Maintenance Area will store  
23 collection containers of spent filter media and will not be a hazardous waste management unit to be  
24 permitted. The area and containers will be managed according to the generator standards of 40 CFR  
25 262.34.

26  
27 The container storage area will be to either side of the stairs leading to the next level. The storage area  
28 will be designated and marked. This area will provide for storage of collection containers in two rows of  
29 four containers, each row stacked three high. Storage racks may be used to minimize space requirements.  
30 This area will provide a storage area greater than that which would be required for the contents of one  
31 carbon filter unit. The storage of the spent filter media will be typically no longer than 5 days, to allow  
32 changeout of one filter unit during unscheduled periods and subsequent incineration during the weekend.

33  
34 Prior to storing any containers in the Storage Filter Media Storage Area, the floors will be coated with a  
35 commercial epoxy sealant that is compatible with the material being stored.

36  
37 Spent filter media will be removed from the filter unit and placed in plastic bags. The plastic bags will  
38 then be placed in the lined collection containers for transport to the Toxic Maintenance Area in the  
39 Munitions Demilitarization Building. In the Toxic Maintenance Area, the filter material (carbon) will be  
40 removed from the reusable frames. The spent filter media will be placed in combustible dunnage feed  
41 boxes for transfer (via the conveyor system) to the Dunnage Incinerator for incineration.

1

2 The filter cells, containing about 90 pounds of carbon, will be placed in plastic bags inside the filter unit  
3 house. The individual bags will be checked for chemical agent surface contamination prior to removal  
4 from the filter unit. Five bagged cells (470 pounds) will be placed in each collection container, measuring  
5 3 feet by 3 feet by 3 feet with a 2,000 pound capacity for transportation by forklift to the Toxic  
6 Maintenance Area of the Munitions Demilitarization Building. In the Toxic Maintenance Area, personnel  
7 in appropriate attire will remove the bagged items, empty the carbon from the reusable frames and  
8 transfer the carbon from the cells into a dunnage combustible feed box for transfer directly to the  
9 Dunnage Incinerator. The same conveying system that is used for all dunnage will transport the boxes to  
10 the Dunnage Incinerator. Spent carbon incineration is planned for the weekends when there will be no  
11 other potentially contaminated dunnage to be incinerated.

12

13 **J-Block**

14

15 ~~Solid wastes are stored in J-Block in 30-, 55-, 85- and 110-gallon drums, boxes, and other~~  
16 ~~containers as defined in 40 CFR 260.10. Description of the J-Block is found in Section D-3a(f).~~

17

18 D-3b(1) Test for Free Liquids [40 CFR 270.15(b)(1); OAR 340-105-0014]

19

20 The absence of free liquids for the brine salt, cyclone and baghouse residue, slag, and ash will be verified  
21 during initial processing operations ~~either by generator knowledge or~~ by the Paint Filter Liquids Test or  
22 the Free Liquids Test (SW-846, Test Methods for Evaluating Solid Waste, Methods 9095 and 9096,  
23 respectively) as specified in Section C-2 ~~Attachment 2 of the Permit,~~ "Waste Analysis Plan."

24

25 D-3b(2) Description of Containers

26

27 The collection containers used to store brine salt, ash from the incinerators, slag, and spent carbon from  
28 the incinerators pollution abatement systems, ~~as well as waste stored in J-Block~~ are described at the  
29 beginning of Section D-3b. Several different types of drums will be kept on hand for backup supply and  
30 emergency use. Table D-3-1<sup>1</sup> gives additional information on these containers and the maximum volume  
31 of waste that can be stored at any one time. ~~Containers used for storage of solid waste in J-Block are~~  
32 ~~described in Section D-3b.~~

33

34 D-3b(3) Container Management Practices [40 CFR 264.173; OAR 340-104-0001]

35

36 The collection containers used for brine salt storage will be filled directly from the discharge conveyors of  
37 the drum dryers. Collection containers will be filled with baghouse and cyclone residue via the airlock at  
38 each collection point. Slag from the secondary chambers of the Liquid Incinerators will be accumulated  
39 in the refractory-lined 55-gallon drums at the Slag Removal Systems. Ash from the incinerators will be

<sup>1</sup> All tables are located at the end of this section.



1 placed into collection containers. The spent filters and carbon will be removed from the filter units and  
2 packed into polyethylene bags, sealed, and placed into lined collection containers.

3  
4 All container labeling, dating, and inventory control operations will occur at the Residue Handling Area  
5 or Toxic Maintenance Area, as applicable. The amount of time the individual containers will remain in  
6 the less-than-90-day storage areas will depend on the munition campaign. It is estimated that the brine  
7 salt transportation container could remain in the Residue Handling Area for as short as 4 hours, and that  
8 the Dunnage Incinerator ash and baghouse residue transportation container could remain in the same area  
9 for as long as 4 weeks. In all cases, wastes will be removed within 90 days. Spacing around the  
10 containers will be adequate to allow for personnel inspections and forklift movement. Aisle space is  
11 described in more detail in Section F-3b, "Aisle Space Requirements." Only specially trained personnel  
12 are allowed to handle the containers. Forklift speeds will be limited to 5 miles per hour and truck speeds  
13 to 25 miles per hour.

14  
15 All containers that will be used for onsite waste storage or for off-facility transportation of hazardous  
16 wastes will meet shipping codes ~~packaging requirements~~ established by the Department of  
17 Transportation (DOT). These regulations also require that the container show the shipping names and  
18 waste identification numbers to properly identify the waste material according to the DOT categorization  
19 scheme for hazardous wastes. This information can be found on the placard that must be clearly visible  
20 on the outside of the container and also must be included on the manifest form that accompanies the  
21 shipment of waste material. Figure D-3-2 shows an example of a label that would ~~may~~ be used to provide  
22 the appropriate information required by the DOT on a container of hazardous waste. Figure D-3-3 shows  
23 a sample Uniform Hazardous Waste Manifest. ~~Containers used for on-site waste storage will meet the~~  
24 ~~definition of container in 40 CFR 260.10.~~

25  
26 Table D-3-2 lists instructions for completing the Uniform Hazardous Waste Manifest. Item 12 requires  
27 that the number and type of DOT container be identified. The DOT container designation that most  
28 closely fits the description of the proposed transportation containers is "CM," which signifies metal  
29 boxes, cartons, and cases (including roll-offs). The fiber-based bags that may be used for the  
30 Deactivation Furnace System ash and cyclone residue and Dunnage Incinerator ash and baghouse residue  
31 containment fit the description "CF," which signifies fiber or plastic boxes, cartons, and cases.

32  
33 ~~Except in cases where containers are leaking or waste material is being transferred, containers in the~~  
34 ~~Residue Handling Area or Toxic Maintenance Area will not be opened to add or remove waste during~~  
35 ~~storage. Containers will only be opened when adding or removing waste.~~ An inspection schedule for  
36 stored containers is presented in Section F-2. ~~Containers will not be opened, handled, or stored in a~~  
37 ~~manner that may rupture the container or cause it to leak.~~ In the unlikely event that significant  
38 deterioration of containers is observed or a ruptured container is identified, the damaged container will be  
39 moved to an aisle and the stored wastes will be transferred to new containers, as described in Section G-4.  
40 There will not be any ignition sources in the enclosed storage area.

41

1 D-3b(4) Container Storage Area Drainage

2

3 All floor surfaces in the UMCDF treatment area container storage areas will be coated with a  
4 commercial epoxy sealant to ensure the integrity of the base. No liquids are expected to be in contact  
5 with the floor surface because there will be two levels of containment for containerized wastes. With the  
6 exception of the Dummage Incinerator and Deactivation Furnace System residue and ash containers, all  
7 collection and transportation containers will be lined. The liner will serve as the primary means of  
8 containment, and the container itself will provide the secondary level of containment. For the unlined  
9 containers, no liquid is expected to be present on the floor surface because no free liquids are expected to  
10 be present in the waste stored.

11

12 Standing liquids from other sources should not be present in the UMCDF treatment area enclosed  
13 storage areas, because the storage areas are within buildings, and the floor level will be above the level of  
14 the surrounding ground and will provide protection from run-on entering the storage area.

15

16 Information regarding drainage for J-Block tanks is found in Section D-3a(1).

1 SECTION F  
2 PROCEDURES TO PREVENT HAZARDS  
3

4 A waiver from security procedures and equipment is not sought. The information provided in this section  
5 is submitted in accordance with the requirements of 40 CFR 270.14(b)(4), (5), (8), and (9); 270.15(c) and  
6 (d); and 270.16(f). Other requirements addressed to complete this section include 40 CFR 264.14,  
7 264.15, 264.17, 264.174, 264.176, 264.177, 264.198, 264.199; OAR 340-105-0014, and 340-104-0001.  
8

9 This section addresses the following subject areas for the Umatilla Chemical Agent Disposal Facility  
10 (UMCDF): general and specific security provisions (Section F-1); inspection schedule (Section F-2);  
11 documentation of preparedness and prevention requirements (Section F-3); preventive procedures;  
12 structures, and equipment (Section F-4); and prevention of accidental ignition or reaction of ignitable,  
13 reactive, and incompatible wastes (Section F-5).

1 F-1 SECURITY [40 CFR 264.14, 270.14(b)(4); OAR 340-104-0001, 340-105-0014]

2  
3 Security at the UMCDF will meet the criteria and standards of the Department of Army Regulation  
4 Number 190-59, "Nuclear and Chemical Weapons and Materiel, Chemical Agent Security Program"  
5 (Attachment F-10). This regulation specifies criteria and standards for the storage, handling, and  
6 movement of chemical surety materiel. It specifically describes the contents of physical security plans  
7 that are required for installations that have a chemical storage mission; requirements for perimeter  
8 security and storage structure protection systems; security procedures; and requirements for security  
9 forces and standards for physical security. The stipulations of Army Regulation 190-59 are more  
10 stringent than the Resource Conservation and Recovery Act security requirements set forth in  
11 40 CFR 264.14. The Umatilla Chemical Depot Activity (UMDA/UMCD) Chief of Security/Facility  
12 Security Personnel has a copy of this Army regulation.

13  
14 In addition to the security procedures that will be in effect at the UMCDF, the UMDA/UMCD provides  
15 overall security. The Chemical Limited Area (K Block), located adjacent to and within the same  
16 fence line of the UMCDF treatment area, has a security system that complies with Army Regulation 190-  
17 59. The unclassified portions of the various security systems are discussed below; all systems will be in  
18 full effect during chemical demilitarization operations. A map depicting the location of fencing and gates  
19 for the UMCDF treatment area and the entire perimeter of the UMDA is shown in Figure B-4-3. These  
20 security systems will prevent unknowing entry into the UMCDF and will minimize the possibility for the  
21 unauthorized entry of persons or livestock onto the UMCDF by use of the following procedures and  
22 equipment: (1) fencing around the entire UMCDF perimeter; (2) 24-hours-per-day, 7-days-per-week  
23 surveillance by roving armed patrols; (3) warning signs posted along perimeter fences to discourage  
24 unknowing or unauthorized entry; (4) entry to the UMCD limited to one gate, staffed by armed security  
25 personnel; (5) access limited to persons and vehicles displaying appropriate identification badges and  
26 vehicle placards; (6) two-way radio communication between security personnel, selected UMDA/UMCD  
27 personnel, and a central communications center; (7) telephone communications available at selected  
28 facilities; and (8) security lighting provided at key locations.

29  
30 The UMCDF administration offices will be located outside the operating treatment area.

31  
32 F-1a Security Procedures and Equipment [40 CFR 264.14, 270.14(b)(4); OAR 340-104-0001,  
33 340-105-0014]

34  
35 The general security provisions for the UMCDF will be in addition to that of the UMDA/UMCD security  
36 provisions in that they will include: (1) double fencing surrounding the UMCDF treatment area;  
37 (2) 24-hours-per-day, 7-days-per-week surveillance by additional stationary and roving armed patrols; (3)  
38 warning signs posted at the UMCDF perimeter; (4) entry to the UMCDF treatment area will be limited  
39 to gates, staffed by armed security personnel; (5) access to the UMCDF treatment area will be limited  
40 to persons and vehicles displaying appropriate identification badges and vehicle placards, separate and  
41 distinct from those required for access to the UMDA/UMCD, issued only by the Chemical Surety Office;

1 (6) two-way radio communication between security personnel, UMCDF personnel, and the central  
2 communications center; and (7) security lighting to illuminate the entire UMCDF ~~treatment area~~. In  
3 addition, security personnel will be issued auxiliary lighting devices, and night vision devices, and they  
4 will patrol the UMCDF constantly in a random manner.

5  
6 F-1a(1) Twenty-Four-Hour Surveillance System [40 CFR 264.14(b)(1); OAR 340-104-0001]

7  
8 Continuous surveillance of the UMCDF and the ~~UMDA~~ UMCDF Chemical Limited Area will be  
9 accomplished by roving security patrols. Three 8-hour shifts will be maintained. This security force will  
10 be composed of supervisors (shift and field), communications dispatchers, fixed-post guards (main and  
11 other gate), and roving patrol guards. Overall administration of security personnel will be performed by  
12 the Chief, Security Office ~~Director~~.

13  
14 Each roving patrol will be motorized and radio-equipped and will be assigned to a specific patrol area  
15 during its watch. Typical duties required of patrol members will include:

- 16  
17 • Check for possible intrusion or security violations  
18  
19 • Check the security of locks to buildings within the perimeter of the patrol area  
20  
21 • Check the physical integrity of perimeter barriers  
22  
23 • Challenge all persons entering or exiting the patrol area who act suspicious, who are  
24 improperly badged, or who may require questioning, or anyone encountered after normal  
25 working hours  
26  
27 • Report, by radio to the Field Supervisor, all incidents and check points  
28  
29 • Respond to contingency calls as directed by the Field Supervisor  
30  
31 • Perform specific duties outlined in daily activity log for patrol area  
32

33 Each patrol will be equipped with protective equipment (M-9, M-17, and M-40 masks), limited first aid  
34 supplies (MARK-1 KITS), fire extinguisher(s), and lights. All patrols will be armed and authorized to  
35 use deadly force under clearly defined rules of engagement.  
36

1 F-1a(2) Barrier and Means to Control Entry [40 CFR 264.14(b)(2)(i); OAR 340-104-0001]

3 F-1a(2)(a) Barrier [40 CFR 264.14(b)(2)(i); OAR 340-104-0001]

5 The UMCDF treatment area will be surrounded by two 7-foot-high chain-link security fences. These  
6 fences will be separated by 30 feet. Each fence will be topped with dual-strand barbed wire, for a total  
7 height of approximately 8 feet. This design will form a buffer zone surrounding the UMCDF. The  
8 perimeter will be completely lighted. No space in the fence will be greater than 4 inches wide. The  
9 bottom of the fence is blocked by cement curbing.

11 ~~The UMCDF fence, consisting of a five-foot-tall chain-link fence with barbed wire on top, serves as a~~  
12 ~~barrier to unauthorized entry to the J-Block storage area.~~

14 F-1a(2)(b) Means to Control Entry [40 CFR 264.14(b)(2)(ii); OAR 340-104-0001]

16 Access to the UMCDF treatment area within the doubly fenced perimeter will require specially signed  
17 forms. Visitors will always be accompanied during their visit to the UMCDF treatment area and will be  
18 subject to security checks.

20 For those individuals who will routinely work in the UMCDF treatment area, special photo-identity  
21 badges will be kept by the guards at the entry control point. These special badges will be issued by the  
22 Chemical Surety Officer and will indicate that the individual is certified to work in this area. The worker  
23 will surrender the standard identity badge and obtain a special badge prior to entry into the UMCDF  
24 treatment area. If the special badge has been revoked or restricted for any reason, or the person's name  
25 is not on the UMCDF Entry Control Roster, the worker will not be allowed past the guards. Entry badges  
26 will also be color-coded to indicate limited versus full access once inside the UMCDF treatment area.

28 A worker must be in a medical screening program, be trained, and have a favorable personnel security  
29 investigation to retain a special badge. Workers will surrender their special badges each time they leave  
30 the treatment area; the security force will be able to account for individuals during accidents or incidents  
31 through use of the badge system.

33 Access to the UMCDF treatment area will be controlled by a remote-activated double-gate and turnstile  
34 system. The guard on duty will permit an individual requesting entry to the UMCDF treatment area to  
35 enter the first turnstile, which the guard will unlock and then lock behind the individual. The individual  
36 will then present suitable credentials. Upon review and approval, the second turnstile will be unlocked  
37 and the individual will pass through. People will enter the area between the turnstiles only one at a time.  
38 All gate guards will be armed and will have authorization to use deadly force.

40 For vehicle entry to the UMCDF treatment area, all persons but the driver must enter through the double  
41 turnstiles. Only the driver will be allowed to drive the vehicle to a zone between two gates, both of which

1 will be locked upon entry. The driver's credentials will be examined, and the vehicle will then be  
2 thoroughly inspected, including under the hood and seats, in the trunk, etc. The second gate will then be  
3 opened to permit the vehicle into the UMCDF treatment area. This procedure will be reversed upon  
4 leaving the UMCDF treatment area. The only exceptions to this procedure will occur during an  
5 emergency or during transportation of chemical surety materiel to another area. The second driver will be  
6 allowed to enter the sallyport with the vehicle only if the vehicle is laden with chemical surety materiel.

7  
8 Some workers will require temporary entry passes. Employees, such as electricians, grounds mowers,  
9 etc., fall in this "temporary entry" category. These personnel will be accompanied by a UMDA UMCD  
10 Surety Office escort during their time within the UMCDF treatment area.

11  
12 Entry into the UMCDF is made at the main guard gate or auxiliary gates E-35 and E-38. The main  
13 gate is manned 24 hours a day by an armed guard. Gates E-35 and E-38 will be manned during all  
14 periods of use. Anyone requesting entrance at one of the auxiliary gates must have an appropriate  
15 badge. All visitors to the UMCDF storage areas must obtain their entrance badge from the  
16 Identification and Registration Office at the main gate or at Gate E-38.

17  
18 In order for a visitor to gain access to the J-Block Storage Area, he/she must have an established  
19 need to enter and must be properly badged. A need to enter is established by the visitor's UMCDF  
20 point of contact. This person also arranges for the proper badging of the visitor. When a person's  
21 need to enter is in question, the Director of Security will be notified. All visitor processing is  
22 performed by the Identification and Registration Office, including maintenance, approval, and  
23 verification of all forms.

24  
25 F-1a(3) Warning Signs [40 CFR 264.14(c); OAR 340-104-0001]

26  
27 Signs warning that the area is restricted and dangerous, and that unauthorized entry is illegal will be  
28 posted along the perimeter fence surrounding the UMCDF treatment area at intervals of 500 feet or less  
29 and near all access gates. These signs will be approximately 18 inches by 24 inches and will be easily  
30 visible at a distance of 25 feet. Large signs describing the "Conditions of Entry" will be posted at each  
31 UMCD gate. These signs will be approximately 4 feet by 6 feet in size, and will warn of the possible  
32 consequences of unauthorized entry.

33  
34 Warning signs at the UMCDF will be approximately 5 feet by 4 feet in size and will be posted at 50-foot  
35 intervals around the UMCDF perimeter. The legends "Warning," "Danger," "Restricted Area," and "Use  
36 of Deadly Force Authorized" will be clearly legible at distances of 25 feet or more. The signs will also  
37 indicate that entrance to the UMCDF is unlawful without permission of the UMDA Commander.

38  
39 J-Block storage igloo doors will be marked, "Danger - Unauthorized Personnel Keep Out." The  
40 markings will be visible from a distance of at least 25 feet.

- 1 F-1b Waiver [40 CFR 264.14(a); OAR 340-104-0001]
- 2
- 3 This section is not applicable.



1 F-2 INSPECTION SCHEDULE [40 CFR 270.14(b)(5), 264.15; 264.602; OAR 340-105-0014,  
2 340-104-0001]

3  
4 ~~The UMCDF Inspection Schedule is located in Attachment 3 of the UMCDF Hazardous Waste~~  
5 ~~Permit.~~

The original Section F-2 is deleted in its entirety.

F-2a-1

UMCDF.F-2

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1 F-3 WAIVER OR DOCUMENTATION OF PREPAREDNESS AND PREVENTION  
2 REQUIREMENTS [40 CFR 264.32; 264.35, 270.14(b)(6); OAR 340-104-0001, 340-105-0014]  
3

4 The Army is not requesting any waivers for the preparedness and prevention requirements of 40 CFR 264  
5 Subpart C.  
6

7 F-3a Equipment Requirements  
8

9 F-3a(1) Internal Communications [40 CFR 264.32(a); OAR 340-104-0001]  
10

11 Immediate emergency notification and instruction is provided to UMCDF personnel working  
12 outside by sirens and the accompanying public address system. At least seven sirens are located in  
13 strategic locations throughout the UMCDF. The public address speakers are located together with  
14 the sirens. The Operations Center has the capability of sounding the sirens individually, in any  
15 combination, or all at the same time. The public address system can broadcast recorded or live  
16 messages. Live messages are used in most instances. A second siren network is available for back  
17 up. This network consists of five sirens and is controlled by the UMCDF Fire Department. This  
18 network does not have the capability of broadcasting messages. The sirens may be sounded  
19 individually or all at once.

20  
21 Personnel working in J-Block will communicate via two-way radio or cellular phone.  
22

23 Telephones and public address loudspeakers will be available throughout the UMCDF treatment  
24 area for use in case of emergencies. This telephone system will be available for internal as well as  
25 external communications.  
26

27 Telephone and public address loudspeakers will be available throughout the UMCDF and in all work  
28 areas for use in case of emergencies. The telephone system will be available for internal as well as  
29 external communications.  
30

31 F-3a(2) External Communications [40 CFR 264.32(b); OAR 340-104-0001]  
32

33 The UMCDF telephone system will provide the means for external communications with the  
34 UMDA/UMCD and the surrounding areas. Cellular phones will be used for external communications  
35 to and from J-Block.  
36

1 F-3a(3) Emergency Equipment Requirements [40 CFR 264.32(c); OAR 340-104-0001]

2

3 The UMCDF will maintain an extensive inventory of emergency equipment.

4

5 Telephone and public address loudspeakers will be available throughout the UMCDF and in all work  
6 areas for use in case of emergencies. The telephone system will be available for internal as well as  
7 external communications.

8

9 Portable fire extinguishers, a sprinkler system, and a fire extinguishing medium, and a dry chemical  
10 system will be built into the UMCDF treatment units to minimize the threat of fire. Portable fire  
11 extinguishers will be available in J-Block. A detailed list of all emergency equipment and personal  
12 protective gear is located in Section G-5 ("Emergency Equipment") of this application. Table F-3-1<sup>1</sup> lists  
13 the inventory of the emergency storage stations. Table F-3-2 lists the emergency equipment available at  
14 the UMDA UMCDF.

15

16 F-3a(4) Water for Fire Control [40 CFR 264.32(d); OAR 340-104-0001]

17

18 It is anticipated that a new storage tank and pump system designed to National Fire Protection  
19 Association standards will be required for UMCDF water needs. If the existing fire main system  
20 (including tank) is adequate, the tank and pump system may not be required for the basic exterior fire  
21 system. The UMCDF treatment area interior fire systems are designed to MIL-HDBK-1008A,  
22 AMC-R385-100, and National Fire Protection Association standards. The fire water reserve is estimated  
23 to be 330,000 gallons. Fire pumps, with backup diesel fuel in the event of an interruption in power  
24 supply, will be provided at the new water storage tank to meet fire flow demands. All water storage tank  
25 system components will be designed to National Fire Protection Association standards. The fire  
26 protection system is shown in Figures G-4-34, G-4-35, G-4-36, and G-4-38 at the end of Section G-4. In  
27 addition, a 120,000-gallon water tower located on North Patrol Road may be used to fight fires in  
28 J-Block.

29

30 F-3b Aisle Space Requirements [40 CFR 264.35; OAR 340-104-0001]

31

32 The Container Handling Building, the Munitions Demilitarization Building, and J-Block igloos will be  
33 used for container storage. The storage area arrangement will provide efficiency in container storage,  
34 provide adequate access for fire fighting and proper maneuvering of a forklift, meet minimum fire code

<sup>1</sup>All tables are located at the end of this section.

1 requirements, and allow easy access for personnel and equipment, which will be needed for inspections  
2 and emergency operations.

3  
4 The Container Handling Building will store the munitions and bulk items before demilitarization  
5 processing. There will be a minimum of four feet of aisle space between containers ~~in the Container~~  
6 ~~Handling Building. Aisle space for permitted storage in the Munitions Demilitarization Building~~  
7 ~~and J-Block will be maintained in accordance with 40 CFR 264.35.~~

8  
9 Drawings UM-7-G-501 through UM-7-G-506 (in Attachment D-3) show the container storage  
10 arrangements for the Container Handling Building.

Table F-3-2

UMDA/UMCD EMERGENCY EQUIPMENT

<u>Equipment</u>	<u>Capability</u>	<u>Quantity</u>	<u>Location</u>
Fire trucks	750-gpm pumper	1	Bldg. 2, Fire Dept.
	Brush truck, 200-gallon capacity, 60-gpm pump	1	Bldg. 2, Fire Dept.
	Equipment truck, 1/2-ton pickup	1	Bldg. 2, Fire Dept.
	Crash truck for helicopter crash response; with foam, dry chemical water capabilities	1	Bldg. 2, Fire Dept.
Ambulances	Patient Transport Vehicle	2	Bldg. 11, Health Clinic
	Emergency personnel evacuation and medical support	1	Bldg. 11, Health Clinic
Bulldozer	Caterpillar-type for brushfire control, spill cleanup, general grading	1	a
Loader, scoop	1-1/2 yd <sup>3</sup> capacity, front-end type; for spill cleanup, etc.	2	a
Backhoe	Wheeled-type tractor-mounted; for ditch digging and excavation	1	a
Hand tools (shovels, brooms, etc.)	Small spill cleanup	as available <sup>b</sup>	a
Distributor, water tank	3,000-gallon, mounted on trailer	1	a
Auger, earth	Boring up to 24-inch holes	1	a
Grader, road	Road grading, ditch cleaning, etc., with 12-foot blade	1	a

Table F-3-2

UMDA ~~UMCD~~ EMERGENCY EQUIPMENT

<u>Equipment</u>	<u>Capability</u>	<u>Quantity</u>	<u>Location</u>
Loader, scoop	1-1/2 yd <sup>3</sup> capacity, front-end type	2	<sup>a</sup>
Crane, hydraulic	40-ton for major item handling	1	<sup>a</sup>
Truck, dump	5-yd <sup>3</sup> capacity for handling and dumping	2	<sup>a</sup>
Truck, pickup	For general purpose transportation	2	<sup>a</sup>
Crane, clamshell and dragline	13-ton capacity	1	<sup>a</sup>

1

2 NOTES:

3 <sup>a</sup>Location may vary. All equipment is under the control of the Equipment Manager, Bldg. 31, Phone: (503) 564-5240.

4 <sup>b</sup>A minimum of one shovel and one broom are kept at each ~~UMCD~~ container storage building.

5

6 Bldg. = Building

7 gpm = gallons per minute

8 yd<sup>3</sup> = cubic yard

1 F-4 PREVENTIVE PROCEDURES, STRUCTURES, AND EQUIPMENT [40 CFR 270.14(b)(8);  
2 OAR 340-105-0014]

3  
4 F-4a Unloading Operations [40 CFR 270.14(b)(8)(i); OAR 340-105-0014]

5  
6 The four categories of waste managed at the UMCDF will include: (1) chemical agent in munitions and  
7 bulk items; (2) the explosives and propellants in the munitions; (3) the brine salts; and (4) the incinerator  
8 ash, residues, slag, ventilation system filters, and spent carbon, and other demilitarization waste. (See  
9 Sections C-1 and C-2 Attachment 2 of the Permit for more detail.) Brine and spent decontamination  
10 solution will not be physically handled. The brines will be pumped from the incinerator pollution  
11 abatement system to the brine surge tanks before they are fed to the Brine Reduction Area. The excess  
12 condensate from the Dunnage incinerator pollution abatement systems will be pumped to the brine surge  
13 tanks before being fed to the Brine Reduction Area. Spent decontamination solution will be collected in  
14 sumps, pumped to the spent decontamination holding tanks, and then pumped to the Liquid Incinerators'  
15 secondary chambers.

16  
17 The munitions and bulk items will be delivered to the Container Handling Building in onsite transport  
18 containers/overpack containers (for spray tanks) via transport truck. They will be unloaded from the  
19 transport truck and placed in the Container Handling Building. From the Container Handling Building,  
20 the onsite transport containers/overpack containers will be transported by a pneumatic roller track  
21 conveyor system and lift system and then on a conveyor to the Munitions Demilitarization Building.  
22 There they will be unloaded in the Unpack Area where processing will begin.

23  
24 The brine salts will be discharged directly to collection containers. The filled containers will be covered  
25 and labeled. The containers of brine salts will then be moved via forklift to the Residue Handling Area,  
26 where they will await transportation to an approved offsite hazardous waste treatment, storage, or disposal  
27 facility.

28  
29 Incinerator ash, slag, and residues will be handled in the same manner as the brine salts. These wastes,  
30 like the brine salts, will be discharged directly into collection containers. The spent carbon from the  
31 ventilation systems and other carbon filter systems will be removed by personnel in Demilitarization  
32 Protective Ensembles. The spent carbon will be placed in lined containers.

33  
34 Hazards in J-Block unloading operations (as well as handling and loading operations) are  
35 minimized through implementation of the appropriate provisions in project-approved, controlled  
36 procedures. Hazards during unloading and other waste handling operations at J-Block are also  
37 minimized through the use of training. All hazardous waste handlers are trained for their  
38 respective job duties; personnel who load and unload hazardous waste receive training on those  
39 activities before performing them.

1 The types of protective clothing to be worn in the different parts of the UMCDF are outlined in  
2 Section G-5b(2), "Protective Clothing Requirements by Area and Function."

3  
4 F-4b Runoff [40 CFR 270.14(b)(8)(ii); OAR 340-105-0014]

5  
6 Runoff from all hazardous waste handling areas to other areas of the UMCDF or the environment will be  
7 prevented by UMCDF design features. Waste handling in the Container Handling Building, Munitions  
8 Demilitarization Building, Residue Handling Area, and Brine Reduction Area will take place in enclosed  
9 buildings. ~~The J-Block gloos are also enclosed structures.~~ These measures should minimize the  
10 potential for precipitation runoff to reach these areas. The waste handling areas of the Container  
11 Handling Building, Munitions Demilitarization Building, and the Brine Reduction Area will have floor  
12 drains and/or sumps for collection of spilled hazardous waste. The floor sumps for all hazardous waste  
13 management areas of the Munitions Demilitarization Building will have provisions for transferring sump  
14 contents to spent decontamination holding tanks. The other areas will have passive sumps, which will be  
15 pumped dry when liquids accumulate in them.

16  
17 Flood protection measures for the UMCDF are described in Section B-3.

18  
19 F-4c Water Supplies [40 CFR 270.14(b)(8)(iii); OAR 340-105-0014]

20  
21 The processing and storage of all hazardous waste (including brine drying and brine salt storage) at the  
22 UMCDF will take place in enclosed structures with concrete bases that will prevent the downward  
23 percolation of wastes or liquids. ~~In J-Block, secondary containment is provided for containers that~~  
24 ~~hold liquid wastes.~~

25  
26 F-4d Equipment and Power Failure [40 CFR 270.14(b)(8)(iv); OAR 340-105-0014]

27  
28 Equipment Failure Control

29  
30 The Automatic Control System will be designed and operated to perform shutdown of the entire UMCDF  
31 or a portion of the UMCDF should an equipment failure (or other emergency) occur. The Control Room  
32 will have a positive pressure, filtered supply air system providing protection against toxic fumes that  
33 could be emitted during an emergency. A detailed description of the Automatic Control System is  
34 provided below.

35  
36 The Automatic Control System will use process controllers with functional keyboard or keyboards for  
37 operator interface and control of the system; as required, monitors for displays, a printer to print out  
38 alarms and messages, and an event recorder or data logger, depending on further system definition. This  
39 equipment will be installed in the Control Room and will be defined as the Automatic Control Station.  
40 The process controllers will contain the programs for each type of munition throughout the UMCDF and  
41 process-supporting systems, such as utilities and ventilators. An operator will be able to remove a unit or



1 piece of equipment from automatic control and control it manually through the keyboard on the console.  
2 The Automatic Control System will be designed as a fail-safe system. All local controllers will  
3 communicate with the Control Room on a real-time basis. Should this communication link become  
4 inactive (presumably from a failure in the Automatic Control System), the local controls will  
5 automatically shut down to a safe mode. The communication system will be a redundant system to  
6 reduce the likelihood of a failure in the communication link.

7  
8 Initialization of the Automatic Control System will be necessary before munitions or bulk item processing  
9 can begin. The initialization procedure will reside within the process controller; the actual initialization  
10 will be a semiautomatic operation. When the initialization has been successfully completed, the operator  
11 will be notified via a monitor, which will indicate that all permissives have been received and the  
12 Automatic Control System is now ready to process that type of munition or bulk item. Any problems that  
13 may arise during the initialization will be displayed on the monitor and will be printed.

14  
15 Before processing munitions or bulk items, each system will be prechecked by a test program from within  
16 the process controller. If the presence of a munition or bulk item is required to perform checks, that  
17 function will be bypassed by the process controller during this check.

18  
19 After initialization and performance verification, a second level of performance verification will be  
20 conducted by the process controller; this will verify the presence of any shutdowns and any permissive  
21 interlocks. Having met all performance verification checks, a message will appear on the monitor and  
22 printer that the UMCDF, as viewed by the process controller, is ready for operation.

23  
24 After start of the Automatic Control System has been initiated, automatic operation will follow, as long as  
25 all individual steps occur within their predetermined parameters and no shutdown signals occur. If a step  
26 or function does not occur within its predetermined parameters, a message will appear on the monitor and  
27 on the printer; the operator must take action. This requirement for operator intervention is not the same as  
28 that required by loss of permissive or shutdown action.

29  
30 Shutdown requests and interlocks will be monitored continuously. Where possible, applicable prealarms  
31 or indications that a shutdown condition is imminent will be used. This will give the operator time to  
32 prevent a shutdown or to be prepared for it. Interlocks will be developed to respond to various conditions  
33 in a manner applicable to the condition and equipment. As an example, some shutdowns will be  
34 immediate, while others will be staged. The system will log all abnormal conditions, such as starting and  
35 stopping of equipment. These logs and records will be analyzed for malfunction reports, maintenance,  
36 etc.

37  
38 In addition to the Automatic Control System, equipment such as incinerators, boilers, and airlock doors in  
39 the Unpack Area and each load station will have a local control panel that will offer limited control.  
40 Local control panels will offer the capability of operating in conjunction with the Automatic Control  
41 System or independently for maintenance purposes. Areas, such as the Unpack Area, or incinerators will

1 be operated in a semiautomatic mode, either during normal operation or startup. In the semiautomatic  
2 mode of operation, the Automatic Control System may start a unit and wait for the next step to be  
3 initiated and controlled by an operator before proceeding to the next logic control step.

4  
5 ~~Block igloos are not equipped with electrical power and, consequently, are not controlled by the~~  
6 ~~Automatic Control System.~~

7  
8 Incineration Upset Control

9  
10 A control system will provide continuous automatic control of the incineration process. System  
11 interaction by the operator will be limited to initiation of process systems or reaction to abnormal  
12 conditions. In monitoring critical functions, the Automatic Control System will give advance warning of  
13 alarms where possible, indicating that a critical or hazardous condition is developing and warning  
14 operators in time to take action. Interlocks will be provided to respond to various conditions. Shutdown  
15 could be immediate or staged. A more detailed description of system shutdown procedures is included in  
16 Sections D-1B-03 through D-1B-05 of Attachment D-3.

17  
18 All incinerators will have automatic waste feed cutoff systems. For example, with the Deactivation  
19 Furnace System, all feed will stop (blast gates will close) under emergency shutdown conditions caused  
20 by loss of flame in the rotary retort pilot burner or afterburner, loss of flame in the two afterburner pilot  
21 burners or afterburners, low pressure from the rotary retort or afterburner combustion air blowers, low  
22 natural gas pressure from the gas supply line, high combustion velocity, or detection of chemical agent in  
23 the stack gas. A more detailed description of the waste feed cutoff systems for the incinerators is  
24 provided in Sections D-5, D-6, D-7, and D-8.

25  
26 Emergency Power

27  
28 The Emergency Power System will consist of a diesel-driven electrical generation system that will be  
29 adjacent to the Munitions Demilitarization Building. The system will be capable of carrying the  
30 UMCDF's entire emergency load and will provide backup power to all of the critical and essential loads  
31 in case of a power outage.

32  
33 Critical functions such as computer memory, communication, instrumentation, emergency lighting, and  
34 other selected essential loads will be connected to the Uninterruptible Power Supply, which will consist  
35 of a rectified charger, inverter, static switch, batteries, and all protective devices, instruments, and  
36 controls. The Uninterruptible Power Supply will provide power to critical loads without practical  
37 interruption and will be monitored from the Control Room. Because of the size of the Uninterruptible  
38 Power Supply, the excess capacity will be used for monitors, fire alarms, and other devices. If one of the  
39 two primary feeders is lost, emergency shutdown will occur and the UMCDF will run on the one  
40 remaining good feeder in an emergency mode. Loss of one feeder will start the emergency generator, but  
41 the generator will not come online unless the second primary feeder from the power plant is lost. During

1 the switchover, the Uninterruptible Power Supply will ensure constant power to the critical items. If the  
2 emergency generator is lost, only the critical items hooked to the Uninterruptible Power Supply will be  
3 available for 45 minutes.

4  
5 A listing of the equipment that will remain operational under emergency power and critical items hooked  
6 to the Uninterruptible Power Supply is provided in Section D-2B-01 of Attachment D-3.

7  
8 Spent Decontamination Collection System

9  
10 In all Category A and B areas, as well as in most Category C areas (these areas are defined in Section D-  
11 1j), spent decontamination sumps and pump(s) will be designated and provided to collect any washdown  
12 from that area and pump it to one of the spent decontamination holding tanks in the Toxic Cubicle.

13  
14 All primary sumps will be constructed of steel and surrounded by an epoxy-coated external concrete  
15 liner. Secondary sumps will be constructed of concrete with an epoxy-coated steel liner. The  
16 compatibility of materials has been considered when designing these sumps. There will be no  
17 incompatibility problems with the selected materials and anticipated decontamination solutions or other  
18 such wastes. The capacity of all sump pumps will be 20 gallons per minute. All floors in Category A,  
19 A/B, and B areas will be sloped at a rate of 1/4-inch per foot. In the Explosive Containment Room, the  
20 floor will slope to a trench, and the trench will slope at 1/16-inch per foot to the sump. In other Category  
21 A areas, the floor will slope to embedded trenches, which will then slope at 1/16-inch per foot to the  
22 sump. In Category C areas, the floor will slope at 1/16-inch per foot to the sumps. The pumping  
23 procedure for the sumps to the Spent Decontamination Holding Tank System is given in Section D-4c  
24 under "Spent Decontamination Holding Tank System."

25  
26 Chemical Agent Monitoring Equipment

27  
28 Various chemical agents will be routinely handled at the UMCDF. The safe operation of the UMCDF  
29 will require that personnel be protected from accidental or inadvertent exposure to these chemical agents.  
30 The ventilation system will minimize worker exposure to chemical agents. To supplement the ventilation  
31 system, a chemical agent monitoring system will be provided to alert personnel to the presence of  
32 chemical agents. The monitoring equipment will be selected according to the following requirements:

- 33  
34 • Demonstrated technology  
35  
36 • Detection sensitivities that reach health criteria  
37  
38 • Rapid detection of chemical agents  
39  
40 • Incorporated National Institute for Occupational Safety and Health-based quality control  
41 methodology.

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19

The equipment selected, which meets these requirements, will include the Automatic Continuous Air Monitoring System and the Depot Area Air Monitoring System. Table F-4-1<sup>1</sup> presents the capabilities, as well as the principles of operation and deployment areas, for these instruments. Attachment F-1 provides more information on each system, including a general description of the system, its theory of operation, and its sensitivity and response time.

It should be noted that because of the low volatility of mustard agent and nerve agent VX in bulk items or munitions, first-entry monitoring will include a thorough visual inspection of the bulk items or munitions in the area in addition to air sampling.

F-4e Personnel Protection Equipment [40 CFR 270.14(b)(8)(v); OAR 340-105-0014]

Various levels of protective clothing will be required at the UMCDF to protect workers from the effects of the chemical agent in the work environment. The type of protective clothing worn by the workers will be based on the level of protection required by the location, the process, and the type of chemical agent. Section G-5 ("Emergency Equipment") of this application provides a detailed discussion of the specific type of protective clothing to be worn in emergency, maintenance, and normal operations.

---

<sup>1</sup>All tables are located at the end of this section.

1 the building (smoke, thermal, and photoelectric types); (2) manual fire alarm pull stations at exit points  
2 from the various hazard areas of the building; (3) fire protection water; (4) an automatic sprinkler system  
3 for the Unpack Area that will be activated by smoke detectors; (5) automatic fire extinguishing medium  
4 systems to protect the Control Room, Control Room Support Area, and Power Room; (6) dry chemical  
5 fire protection system in the Toxic Cubicle; (7) portable fire extinguishers located throughout the  
6 building; and (8) a water deluge system in the Explosive Containment Rooms. A detailed description of  
7 the building fire protection system is provided in the contingency procedures, in Section G-4e.

8  
9 The explosive components of munitions will be removed by either the Mine Machine, Rocket Shear  
10 Machine, or the Projectile/Mortar Disassembly Machine in the Explosive Containment Rooms. There  
11 will also be a Burster Size Reduction Machine in the Explosive Containment Rooms when projectiles are  
12 being processed. The Explosive Containment Rooms will feature reinforced concrete enclosures  
13 designed to totally contain the effects of an accidental explosion. These areas will be unmanned during  
14 normal operations.

15  
16 The probability of an explosion occurring in the Deactivation Furnace System is low. The system is  
17 designed, however, so that the effects of an explosion within the incinerator are minimized, and the  
18 system's barrier (room) is designed to contain the explosive effects of an explosion in the system (similar  
19 to the Explosive Containment Rooms). Materiel entrance to the rotary retort will be accomplished  
20 through the blast gate, which will isolate the rotary retort in case of an explosion. Again, this will  
21 normally be an unmanned area.

22  
23 The chemical agent in the munitions will be removed by either the Mine Punch and Drain Station, Rocket  
24 Drain Station, Multipurpose Demilitarization Machine, or the Bulk Drain Station. These areas will be  
25 protective clothing areas and will normally be unmanned during processing operations. The probability  
26 of reaction of the chemical agents is low because of the contained design of the Bulk Drain Stations and  
27 the compatibility of the materials in the UMCDF. If a reaction of chemical agents occurs, the system has  
28 been designed to contain all gases.

29  
30 ~~Waste stored in igloos will be separated and protected from sources of ignition or reaction.~~  
31 ~~Smoking is prohibited in the J-Block storage area, and "No Smoking" signs are posted on igloo~~  
32 ~~exteriors. In addition, two igloo design features keep air in the igloos as cool as possible during the~~  
33 ~~warm, summer months. Two feet of fill covering each igloo insulates them from warm ambient~~  
34 ~~temperatures, and for all igloos not containing IX waste, the different levels of the two ventilation~~  
35 ~~stacks allows for air exchange.~~

36  
37 Safe handling of explosives and munitions materials has been a continuing concern for the U.S. Army for  
38 at least 200 years. The experience accumulated over that time in safely handling, transporting, and  
39 storing ammunition and explosives has been codified in the following documents:

1 F-5b General Precautions for Handling Ignitable or Reactive Wastes and Mixing of Incompatible  
2 Wastes [40 CFR 270.14(b)(9) and 264.17(b) and (c); OAR 340-105-0014; 340-104-0001]

3  
4 General precautions for handling reactive waste are discussed above. There will be no ignitable wastes at  
5 the UMCDF waste management units. None of the hazardous wastes are mutually incompatible.  
6 Ignitable waste will be separated and protected from sources of ignition or reaction. When  
7 ignitable waste is being handled, smoking and open flames will be prohibited from the vicinity of  
8 the ignitable waste. "No Smoking" signs will be placed wherever there is a hazard from ignitable  
9 waste. Incompatible secondary wastes will be stored in separate J-Block igloos.

10  
11 F-5c Management of Ignitable or Reactive Wastes in Containers [40 CFR 270.15(c) and 264.176;  
12 OAR 340-105-0014, 340-104-0001]

13  
14 The brine salts, incinerator ash, Deactivation Furnace System cyclone residue, Dunnage Incinerator  
15 pollution abatement system baghouse residue, spent carbon, spent ventilation filters, and Liquid  
16 Incinerator slag, and other demilitarization waste to be stored in containers are neither ignitable nor  
17 reactive. Therefore the requirements of 40 CFR 270.15(c) and 264.176 are not applicable to this waste.  
18 The containers of chemical agent, explosives, and propellants are not ignitable regardless of whether a  
19 waste is ignitable or reactive, all wastes will be managed so that water contact is minimized.

20  
21 F-5d Management of Incompatible Wastes in Containers [40 CFR 270.15(d) and 264.177(a), (b),  
22 and (c); OAR 340-105-0014, 340-104-0001]

23  
24 No mutually incompatible hazardous wastes will be managed by the UMCDF or stored in containers.  
25 Only one chemical agent type will be processed at a time. Incompatible waste will be stored in  
26 different J-Block igloos. Waste in J-Block igloos will be segregated in accordance with  
27 Section D-3a(2).

28  
29 F-5e Management of Ignitable or Reactive Wastes in Tank Systems [40 CFR 270.16(f) and  
30 264.198(a)(2); OAR 340-105-0014, 340-104-0001]

31  
32 Brine and spent decontamination solutions have flash points that classify them as Class IIIB liquids in  
33 accordance with the National Fire Protection Association. These are not unstable, ignitable, or reactive  
34 liquids, as defined by the National Fire Protection Association. The brine surge tanks and the spent  
35 decontamination holding tanks will be in full compliance with the National Fire Protection Association  
36 requirements. The agent holding tank, agent surge tank, and spent decontamination holding tanks will be  
37 located in the Toxic Cubicle and Spent Decontamination System Room, respectively. These areas will be  
38 provided with trenches and sumps that provide containment in excess of the largest tank capacity. The  
39 spacing between tanks will be in excess of 3 feet.

1 All tanks in the UMCDF will be single purpose in design so, with the exception of the Spent  
2 Decontamination Holding Tank System, no mixing activities are possible. The wastes that may enter the  
3 Spent Decontamination Holding Tank System include spent decontamination solution and dilute liquid  
4 laboratory wastes. Because the liquid laboratory wastes will be primarily water, there should be no  
5 potential for adverse reactions. The storage of reactive waste will be in accordance with National Fire  
6 Protection Association Code 30.

7

8 F-5f Management of Incompatible Wastes in Tank Systems [40 CFR 270.16(f) and 264.199(b);  
9 OAR 340-105-0014, 340-104-0001]

10

11 The design of the UMCDF only allows for brines from the incinerator pollution abatement systems to go  
12 to the brine surge tanks in the Brine Reduction Area; spent decontamination solutions and liquid wastes  
13 from the Laboratory to go to the spent decontamination holding tanks; and drained chemical agent to go  
14 to the agent holding tank or agent surge tank. All pollution abatement system brines from all of the  
15 incinerators are compatible, whether processing chemical agents GB, VX, or mustard. Different chemical  
16 agents will not be processed together and when changing from one chemical agent to another, the agent  
17 holding tank and the agent surge tank will first be decontaminated to a 3X level.

18

19 NOTE: The UMCDF has no waste piles, surface impoundments, landfills, or land treatment units. The  
20 requirements to discuss the management of ignitable, reactive, or incompatible wastes in these  
21 units are, therefore, not applicable. Therefore, there are no entries for Sections F-5g through  
22 F-5n for the requirements listed in 40 CFR 270.

23

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1 Sensitivity and Response Time

2

Sensitivity:	<u>Unmasked Workers</u>	<u>General Public</u>
GB	0.0001 mg/m <sup>3</sup>	0.000003 mg/m <sup>3</sup>
VX	0.00001 mg/m <sup>3</sup>	0.000003 mg/m <sup>3</sup>
Mustard (HD)	0.003 mg/m <sup>3</sup>	0.0001 mg/m <sup>3</sup>
Sample Time:	1-12 hours	12 hours
Hold Time:	72 hours	72 hours
Analysis Time:	0.75-72 hours	0.75-72 hours

3

4 DAAMS Detection and Confirmation

5

6 The DAAMS initial analysis consists of gas chromatographic (GC) separation followed by detection with  
 7 a flame photometric detector (FPD). Upon detection of chemical agent during initial analysis, one or  
 8 more additional DAAMS tubes will be analyzed using dissimilar columns and/or different detectors to  
 9 confirm or refute the presence of chemical agent. The presence of chemical agent will be confirmed or  
 10 refuted by use of dissimilar column GC-FPD or GC-Mass Spectrometry (MS) in either Chemical  
 11 Ionization or Electron Impact mode. These methods are summarized in the following table:

12

Function	Initial Detection	Confirmation or Refutation
Methods	GC-FPD	GC-MS (Chemical Ionization Mode), GC-MS (Electron Impact Mode), GC-FPD (Dissimilar Column)

13

14 Figure 2 summarizes the DAAMS chemical agent detection and confirmation process.

15

16

17 REAL-TIME ANALYTICAL PLATFORM

18

19 General

20

21 The Real-Time Analytical Platform (RTAP) is a self-contained mobile platform that can be moved  
 22 from site to site for sampling and analysis of potentially agent-contaminated air. The RTAP low-  
 23 level monitor is designed to respond in less than 15 minutes with alarm capability. The RTAP is  
 24 especially useful in on-site clearance of globs and other suspect agent-contamination sites.

25

1 Theory of Operation

2  
3 The RTAP combines a vehicle with a mounted HP 5890 Dynatherm gas chromatograph with an  
4 automatic continuous environmental monitoring system that collects compounds on a solid sorbent  
5 trap, thermally desorbs them into a capillary gas chromatography column, and detects the  
6 compounds with a simultaneous phosphorous/sulfur, dual-headed flame photometric detector.

7  
8 Each RTAP contains an automated continuous sample collection device called a Dynatherm AC/MI  
9 900 that collects agents in air samples on a solid sorbent trap. The Dynatherm uses the following  
10 six-step cycle to collect and transfer a sample to the gas chromatograph (GC):

- 11
- 12 1. Sample collection on a DAAMS or other sorbent tube packed with Tenax (for HD),
- 13 Hay-Sep (for GB or VX), or other similarly absorbent material;
- 14 2. The sorbent tube is dried to remove moisture;
- 15 3. To remove agent the sorbent tube is heated at 275°C for two minutes;
- 16 4. After removal of the agent, the sorbent tube is cooled;
- 17 5. To move it to the GC, the focusing tube in which the sample is trapped is heated; and
- 18 6. The apparatus is returned to initial conditions in preparation for the next sample.

19  
20 The Dynatherm uses three sorbent tubes in series. The first tube collects the air sample and  
21 releases the compounds during the third step of the cycle. This tube, the sorbent tube, is packed  
22 with Tenax (for HD) and Hay-Sep (for GB or VX) material. The sorbent tube is dried and heated  
23 to desorb and volatilize the agent. The collected material is then transferred to a focusing tube in a  
24 nitrogen carrier gas. The second tube may be used as a sample saver if operators need to save a  
25 portion of the sample for later analysis. The third tube, also called a preconcentrator tube or  
26 focusing trap, concentrates the sample before injecting it onto the GC. The focusing tube is also  
27 heated to transfer the collected sample to the GC. The collected agent transferred from the  
28 focusing tube is passed through an adapted HP 5890 GC fitted with a capillary column and  
29 phosphorous/sulfur dual-headed FPD.

30  
31 Other analytical equipment may also be added to RTAPs, such as miniature continuous air  
32 monitors (MINICAM). The MINICAM is very similar to, but smaller than, the ACAMS. Both  
33 were developed by the same people. The MINICAM is an automatic air monitoring system that  
34 collects compounds on a solid sorbent trap, thermally desorbs them into a capillary gas  
35 chromatography column for separation, and detects the compounds with a flame photometric  
36 detector. It is a lightweight, portable, real-time, low-level monitor with alarm capability. A  
37 description of its operation may be found in the preceding ACAMS section.

38  
39 Samples may be collected through one of three heated vapor sample transfer lines (HVSTL), each  
40 80 feet long. Only one line may be used at a time. The line connects the igloo sampling line to the  
41 sample inlet of the Dynatherm or MINICAMs inside the RTAP. Vacuum is furnished by a vacuum

1 pump in the RTAP to draw air from the sampling point to the collection system, but heat is also  
 2 necessary to move the low volatility agent. HVSTs are constructed of Teflon, which minimizes  
 3 sorption of organic substances to the walls of the line, and are hermetically sealed for outdoor use.  
 4 The outer jacket of each HVST may reach temperatures of up to 110°F. Sample line flow rates  
 5 must be monitored with a calibrated flow meter because amounts detected are directly related to  
 6 the flow rate. Only a total mass of agent is detected; the volume of air sampled is back calculated  
 7 from the sampling flow rate and duration of sampling, so that the airborne concentration is  
 8 estimated as a detected mass/volume of air collected. Each RTAP is equipped with an audible  
 9 alarm that can sound within 15 minutes of sampling.

11 Sampling exhaust gases will be filtered at the exit port of the vacuum pump to prevent possible  
 12 agent release.

14 **Sensitivity and Response Time**

Sensitivity:	Unmasked Workers
GB	0.0001 mg/m <sup>3</sup>
VX	0.00001 mg/m <sup>3</sup>
Mustard (HD)	0.003 mg/m <sup>3</sup>
Sample Time:	4-5 minutes
Analysis Time:	6-7 minutes

17 **RTAP Detection and Confirmation**

19 The RTAPs are equipped with two gas chromatographs: the Hewlett Packard (HP) 5890/6890 and  
 20 the MINICAM. If agent is detected with one GC, then another GC (with a dissimilar column) is  
 21 run to confirm or refute. If agent is detected by both, agent detection is confirmed.

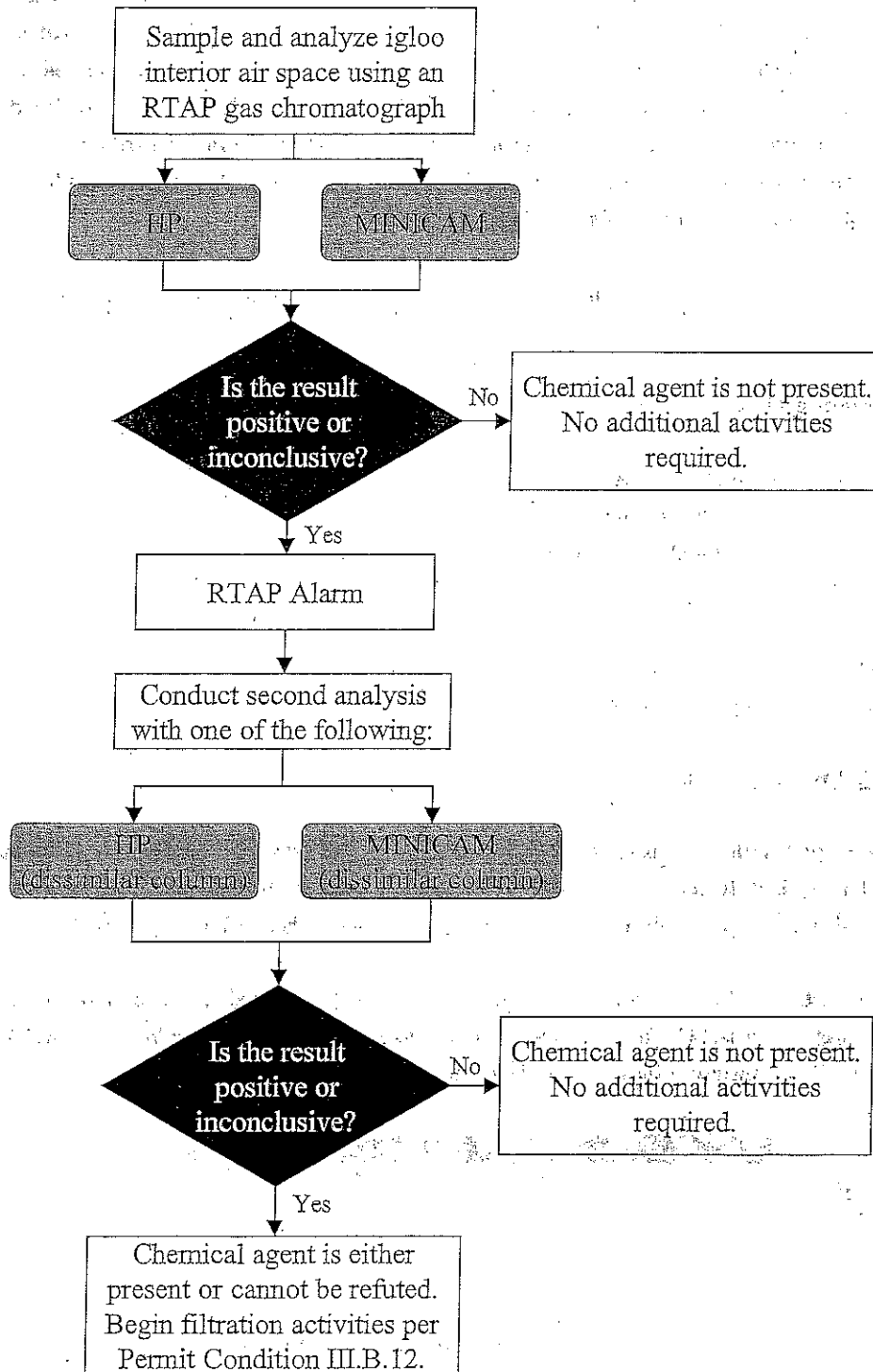
23 Typically, a MINICAM, which has a dissimilar column from the HPs, is used to confirm or refute  
 24 HP GC results. However, an HP GC may be used to confirm or refute a MINICAM or another HP  
 25 GC provided they have dissimilar columns (see table below).

Equipment	Column		
	DB5	SP4701	DB1
HP 5890	✓	✓	
HP 6890		✓	
MINICAM			✓

28 **Figure 3 summarizes the RTAP chemical agent detection and confirmation process.**

1  
2

Figure 3. RTAP's Chemical Agent Detection and Confirmation Process



1 I-1 CLOSURE PLAN [40 CFR 270.14(b)(13), 264.112; OAR 340-105-0014, 340-104-0001]

2  
3 I-1a Closure Performance Standard [40 CFR 264.111; OAR 340-104-0001]

4  
5 This closure plan is designed to provide for closure of the UMCDF in a manner that will:

- 6  
7 • Minimize the need for further maintenance  
8  
9 • Control, minimize, or eliminate, to the extent necessary to protect human health and the  
10 environment, the post-closure escape of hazardous waste, hazardous constituents, leachate,  
11 contaminated runoff, or hazardous waste decomposition products to surface water,  
12 groundwater, or the atmosphere.  
13

14 Final closure of the UMCDF at the Umatilla Chemical Depot (UMCD) will accomplish the goals of the  
15 closure performance standards, noted above, by: (1) processing the entire chemical weapons inventory  
16 located on the UMCD at or before the commencement of closure activities for the UMCDF, and  
17 (2) removing and/or decontaminating all equipment, bases, structures, soils, or other materials containing  
18 or contaminated with hazardous waste or hazardous constituents associated with the hazardous waste  
19 management units located at the UMCDF that exceed clean-closure target levels. Clean-closure target  
20 levels will be based on Agency-approved health/risk information.  
21

22 Post-closure maintenance or monitoring is not anticipated for the UMCDF since no hazardous wastes or  
23 hazardous constituents resulting from the UMCDF are expected to remain above clean-closure target  
24 levels at the facility following final closure.  
25

26 Following UMCDF decontamination and removal of all process equipment, the stripped facilities will be  
27 monitored to assure removal or destruction of residual chemical agent prior to certification of final  
28 closure.  
29

30 After final closure, certification, and acceptance of closure by the Oregon Department of Environmental  
31 Quality (ODEQ) has been completed, the UMCDF will no longer be classified as a hazardous waste,  
32 treatment, or storage facility.  
33

34 I-1b Partial and Final Closure Activities [40 CFR 264.112(a)(1); OAR 340-104-0001]

35  
36 At this point, no specific date for implementation of UMCDF closure has been scheduled. Present  
37 estimates are that about 2.2 years will be required to demilitarize the inventory of chemical agent stored at  
38 the UMCD. Assuming UMCDF begins demilitarization operations in July 2000, closure activities are  
39 expected to begin in 2003, with final closure completed the same year. It should be noted that the  
40 duration of the demilitarization activity is dependent on the release of munitions and bulk items from the

1 UMCD stockpile for processing at the UMCDF and the overall operational performance of the Chemical  
2 Stockpile Disposal Program.

3  
4 Final closure of the UMCDF will be accomplished by an integrated sequence of partial closures  
5 (i.e., unit-by-unit closure operations). Closure of the UMCDF will be conducted as expeditiously as  
6 possible following completion of the chemical agent demilitarization operations. Furthermore, Public  
7 Law 99-145 requires that the UMCDF (except buildings) be dismantled at the conclusion of  
8 demilitarization activities and not be used for other purposes.

9  
10 All aspects of UMCDF closure are briefly summarized in Table I-1-1<sup>1</sup> with detailed discussions of the  
11 closure procedures included in Section I-1e.

12  
13 Certification of Closure [40 CFR 264.115; OAR 340-104-0001]

14  
15 Within 60 days of completion of the final UMCDF closure procedures described above, a representative  
16 of the UMCD Commander will submit a certification, signed by the Commander and an independent  
17 registered professional engineer, that the UMCDF has been closed in accordance with this closure plan  
18 and all applicable regulations. Since the UMCDF will not have any regulated disposal units, only  
19 certification of final closure of the UMCDF will be submitted. Documentation of closure activities for  
20 each regulated unit will be maintained by the certifying independent registered professional engineer.

21  
22 Since overall UMCDF closure will be accomplished through a series of unit-by-unit closures, the  
23 independent registered professional engineer will make periodic inspections during the closure period.  
24 These inspections, relative to closure, are denoted in Figure I-1-1<sup>1</sup>.

25  
26 I-1c Maximum Waste Inventory [40 CFR 264.112(b)(3); OAR 340-104-0001]

27  
28 Table I-1-2 presents estimates of the maximum amount of hazardous waste on hand during the  
29 operational life of the UMCDF.

30  
31 Wastes on hand at the UMCDF at the start of closure may include brine in the brine surge tanks;  
32 decontamination solution in the spent decontamination holding tanks; and waste brine salts, incinerator  
33 residues, and ash in the Residue Handling Area.

34  
35 A small inventory of containerized hazardous wastes will typically be maintained in the brine salt  
36 packaging area of the Process and Utility Building awaiting transfer to the Residue Handling Area for  
37 consolidation and shipment to an approved offsite hazardous waste treatment, storage, or disposal facility.  
38 The onsite inventory of munitions and bulk items will be continuously processed, however, and will be  
39 eliminated prior to implementation of UMCDF closure activities.

1 I-1d Schedule for Closure [40 CFR 264.112(b)(6); OAR 340-104-0001]

2  
3 I-1d(1) Time Allowed for Closure [40 CFR 264.113(a) and (b); OAR 340-104-0001]

4  
5 Figure I-1-1 presents the proposed closure schedule for the UMCDF. The overall closure of the UMCDF  
6 will be completed by an integrated sequence of unit-by-unit closures (i.e., partial closures) until all  
7 hazardous waste management units have been closed. Each partial closure activity will be completed  
8 within 18 days of initiating each unit closure. It is anticipated that final closure of the entire UMCDF will  
9 take from 27 days to 1 year from the date of beginning the first unit closure. It is further anticipated that  
10 individual unit closures will occur concurrently with other unit closure activities (e.g., closure of the  
11 Container Handling Building will be concurrent with closure of the Agent Collection Tank System). The  
12 proposed closure sequence of the UMCDF, on a unit-by-unit closure basis, is summarized in Table I-1-3.

13  
14 I-1d(1)(a) Extensions for Closure Time [40 CFR 264.113(a) and (b); OAR 340-104-0001]

15  
16 Closure of the UMCDF will be accomplished through a series of unit-by-unit closures of individual  
17 hazardous waste management units. It is not expected that any unit closure will exceed the 180 days  
18 allowed for each unit when partial closures are conducted. It is anticipated, owing to the complex nature  
19 of the UMCDF, the extensive decontamination procedures to be implemented during closure, and the  
20 extremely hazardous nature of the chemical agents treated at the UMCDF, that final UMCDF closure  
21 will be completed within 270 days to 1 year following commencement of the first hazardous waste  
22 management unit closure.

23  
24 It is the intent of the Army to certify final closure of all regulated units (tank systems and incinerators)  
25 located within the Munitions Demilitarization Building upon completion of the postdecontamination  
26 chemical agent monitoring program within the building. This monitoring program will be conducted for  
27 a minimum of 3 months following completion of all decontamination activities within the building and is  
28 essential to completing the safe decommissioning of the UMCDF.

29  
30 In some instances, such as closure of the Agent Collection Tank System (one of the first units to be  
31 closed), the overall time period (from start of tank closure to completion of chemical agent monitoring  
32 program in the building) may exceed 180 days, even though actual closure activities for the individual  
33 tank system will be completed in less than 180 days.

34  
35 Since overall certification that the UMCDF has been properly closed and will not present any future  
36 threats to human health or the environment is the primary goal, the Army requests that all hazardous  
37 waste management units located within the Munitions Demilitarization Building be given a closure time  
38 period extension to a maximum of one calendar year following initiation of closure activities (i.e.,  
39 commencement of closing the Agent Collection Tank System), with the elapsed closure time period not to  
40 exceed one year. This one-year time frame is for closure of the Munitions Demilitarization Building,

---

<sup>1</sup> All tables and figures are located at the end of this section.

1 including all units therein and including the minimum 3-month postdecontamination chemical agent  
2 monitoring program.

3

4 If closure of all units within the Munitions Demilitarization Building has not been initiated within 180  
5 days of the initiation of the first unit closure (i.e., Agent Collection Tank System), the Army will prepare  
6 a revised schedule and extension request with supporting documentation on closure progress and reasons  
7 why additional time is needed to complete closure.

8

9 Similarly, if the final volume of hazardous waste in any other permitted unit cannot be completely  
10 removed within 90 days or the unit completely closed within the allowable 180 days, the Army will  
11 submit a closure extension request at least 30 days prior to expiration of the 90- or 180-day periods,  
12 respectively.

13

14 In all instances of closure extension, the Army will take all steps necessary to prevent threats to human  
15 health or the environment from unclosed but not operating hazardous waste management unit(s),  
16 including compliance with all applicable permit conditions pertaining to that unit(s).

17

18 I-1e Closure Procedures [40 CFR 264.112(b)(4); OAR 340-104-0001]

19

20 This section is organized in a manner that describes the general activities associated with closure of the  
21 UMCDF, as well as specific RCRA-permitted unit closure activities. The following sections are  
22 included:



1  
2

- 
- I-1e(1) Inventory Removal, Disposal, or Decontamination of Equipment
    - General Decontamination Procedures and Techniques
    - Munitions Demilitarization Building Decontamination
    - Laboratory Building Decontamination
    - Facility Soils Investigation at Closure
  - I-1e(2) Disposal or Decontamination of Equipment, Structures, and Soils
  - I-1e(3) Closure of Disposal Units/Contingent Closures
  - I-1e(4) Closure of Containers
    - Container Handling Building
    - Residue Handling Area
    - ~~Block Storage Area~~
  - I-1e(5) Closure of Tank Systems
    - Agent Collection Tank System
    - Spent Decontamination Holding Tank System
    - Brine Surge Area Tank System
    - LAB Chemical Waste Storage Tank System
    - Liquid Waste Holding Tank System
  - I-1e(6) Closure of Waste Piles (Not Applicable)
  - I-1e(7) Closure of Surface Impoundments (Not Applicable)
  - I-1e(8) Closure of Incinerators
  - I-1e(9) Closure of Landfills (Not Applicable)
  - I-1e(10) Closure of Land Treatment Facilities (Not Applicable)
  - I-1e(11) Closure of Miscellaneous Units
    - Evaporator Packages
    - Drum Dryers
- 

3

I-1a-5

UMCDF-I-1

1 I-1e(1) Inventory Removal, Disposal, or Decontamination of Equipment [40 CFR 264.114;  
2 OAR 340-104-0001]  
3

4 Prior to closure, the inventory of munitions and bulk items in the Container Handling Building, Agent  
5 Collection Tank System, and Munitions Demilitarization Building will be processed through the  
6 UMCDF. Prior to the commencement of closure operations, all hazardous waste residues originating  
7 from the final chemical agent demilitarization campaign will be removed from the UMCDF in accordance  
8 with normal operating procedures.  
9

10 The closure of the hazardous waste management units and areas of the UMCDF will be completed  
11 according to the procedures discussed in this section. During closure operations, residues such as spent  
12 decontamination solutions, brine salts, ash, etc. will be generated. As described in greater detail in the  
13 following sections, some residues will be thermally treated in operable units active during the UMCDF  
14 closure sequence, or in mobile equipment brought onsite during closure. If a mobile incinerator is not  
15 permitted and available for use at the UMCDF closure, these wastes will be shipped offsite to an  
16 approved hazardous waste treatment, storage, or disposal facility. Other residues, such as brine salts  
17 (generated during closure) and cleaning residues, will be disposed of offsite in accordance with normal  
18 operating procedures.  
19

#### 20 General Decontamination Procedures and Techniques

21

22 Decontamination of the UMCDF will proceed after all demilitarization activities have been completed  
23 and all munitions, bulk items, and chemical agents, ~~and previously generated secondary waste~~ have  
24 been incinerated. Closure will consist of decontamination of all buildings to the 3X level and all  
25 removable process equipment located in Category A and B areas to the 5X level (see Figures I-1-2  
26 through I-1-5 and Attachment I-1).  
27

28 These cleanup levels are defined by the Army as follows:  
29

- 30 • 3X--Three Xs indicate that the item has been surface-decontaminated by specific procedures  
31 and that appropriate tests or monitoring has verified that vapor concentrations of  
32 0.0001 milligram per cubic meter for nerve agent GB, 0.00001 milligram per cubic meter for  
33 nerve agent VX, and 0.003 milligram per cubic meter for mustard agent do not exist. Items  
34 are to be free of grease and oils that may absorb chemical agent. The 3X decontamination  
35 generally is accomplished by chemical neutralization. Items decontaminated to 3X cannot be  
36 subjected directly to open flame or heat such as drilling and machining unless it is done in an  
37 area having appropriate engineering controls such as ventilation systems. Equipment and  
38 facilities decontaminated to this level must be retained and controlled in government custody.  
39

1 Facility Soils Investigation at Closure  
2

3 The specialized munitions handling equipment and inspection/decontamination procedures, other  
4 engineered systems such as the Munitions Demilitarization Building and its associated munitions  
5 processing equipment, and the continuous UMCDF chemical agent monitoring system are intended to  
6 preclude (or detect) most anticipated nonrandom, systematic events (e.g., tank leaks) that could lead to a  
7 release of chemical agent or related hazardous waste to UMCDF soils. However, an unplanned release of  
8 chemical agent or other hazardous waste may occur during the operational life (including the closure  
9 period) of the UMCDF.

10  
11 While the engineered safeguards of the UMCDF (such as the incineration systems and the secondary  
12 containment devices for munitions/bulk items storage areas and tank systems) are designed to prevent  
13 UMCDF operational failures, one of the most likely causes of an unplanned release of hazardous waste to  
14 UMCDF soils would be transportation-related (including loading and unloading operations); either  
15 occurring during transportation of munitions/bulk items from the stockpile storage area at the Chemical  
16 Limited Area to the UMCDF Container Handling Building, transportation of munitions/bulk items from  
17 the Container Handling Building to the Munitions Demilitarization Building Unpack Area, ~~or during~~  
18 transportation of process-related hazardous waste (e.g., brine salts, incinerator ash, etc.) to an approved  
19 offsite hazardous waste treatment, storage, or disposal facility ~~or transportation of process-related~~  
20 ~~hazardous waste to J-Block.~~

21  
22 If such events occur during the life of the UMCDF, response and clean-up procedures are detailed in the  
23 UMCDF Contingency Plan (see Section G of this permit application).  
24

25 To provide verification that UMCDF soils do not pose a threat of post-closure escape of chemical agent  
26 or related hazardous waste or hazardous constituents to the environment, UMCDF soils in the proximity  
27 of the regulated waste management units and all hazardous waste loading/unloading areas will be  
28 sampled. The samples will be analyzed for all chemical agents processed at the UMCDF, or nonchemical  
29 agent hazardous constituents, as applicable, for areas related to process wastes. Areas to be addressed  
30 include the following:

31  
32 Transportation Routes (Chemical Agent-Related)  
33

- 34 • All onsite roadways on which unprocessed chemical agents are transported, including the  
35 roadway from the Chemical Limited Area storage area to the Container Handling Building  
36 and from the Container Handling Building to the Munitions Demilitarization Building  
37
- 38 • Munitions/bulk items receiving area outside the Container Handling Building  
39
- 40 • Munitions/bulk items receiving area at the Munitions Demilitarization Building.

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Transportation and Process Waste Discharge Areas (Nonchemical Agent-Related)

- All onsite roadways in which demilitarization process hazardous wastes are transported
- Deactivation Furnace System discharge and residue collection area
- Dunnage Incinerator baghouse
- Dunnage Incinerator ash removal and residue collection area
- Process and Utility Building loading/unloading area.

Other areas will be sampled, as appropriate. Prior to closure of the UMCDF, the independent registered professional engineer responsible for closure certification will review with the UMDA UMCDF Commander's representative (or the Emergency Coordinator) all UMCDF operating records pertaining to spills, releases, or other unplanned events. If releases occurred during operations, the record of response will be examined. A determination will be made by the independent engineer as to whether the response action was appropriate. If documentation of the cleanup and followup verification sampling indicates that the release was removed to clean closure target levels, no closure verification sampling of that area will be conducted. (Note: Section G-4 of the Contingency Plan provides details on the planned response action(s) for chemical agent and nonchemical agent-related spills. The criteria for cleanup of all spills to UMCDF soils is complete removal.)

Clean-Closure Target Levels

Clean-closure target levels will be established for hazardous constituents related to the UMCDF in the following manner:

- For hazardous constituents, which are the active components of the chemical agents to be processed at the UMCDF, the detection limits for the analytical methods specified in Section C-2 ("Waste Analysis Plan") will be used.
- For organic hazardous constituents other than the active components of the chemical agents, health-risk based clean-closure target levels with background levels as appropriate will be used.
- For priority pollutant metals, which are measured above background levels, health-risk based clean-closure target levels will be used.

1                   Health-Risk-Based Clean-Closure Target Level Evaluation

2  
3     The Army will perform a clean closure health-risk assessment for the UMCDF nonchemical agent-related  
4     hazardous constituents shown to exceed background limits in soil samples (detection limit for organic  
5     constituents). In accordance with the Environmental Protection Agency (EPA) Office of Solid Waste and  
6     Emergency Response Directive 9476.00-12 (Closure Requirements), 02/02/88, target levels will be  
7     established based on Agency-approved health risk information. Attachment I-3 presents the procedures  
8     that will be used by the Army to determine clean-closure target levels for soils. The procedures include  
9     an assessment of UMCDF-related hazardous constituents for potential exposure routes including soil,  
10    surface water, groundwater, and air.

11  
12                   Background Soils Investigation

13  
14    After initial earthwork (excavation and fill activities) and prior to construction activities in the immediate  
15    vicinity of sampling locations, onsite soil sampling will be conducted to establish background levels of  
16    potential hazardous constituents. At least five background soil samples will be collected and analyzed  
17    from eight pre-selected locations representative of the UMCDF soils. At each location, individual  
18    samples will be collected at 1.5- to 2-foot intervals (depending on actual sampling equipment used),  
19    except for the 6-8 foot interval, to a total depth of 10 feet (or until groundwater is encountered, whichever  
20    occurs first). A surface soil sample will be taken in place of the 6-8 foot interval sample. Samples will be  
21    taken in pre-selected areas that have a high potential for possible contamination from various UMCDF  
22    activities and in areas determined by UMDA/UMCD officials to be unaffected by previous waste  
23    management or munitions management activities. This will be verified by analysis of each sample for the  
24    presence of the chemical agents to be processed at the UMCDF. Samples will be taken from similar  
25    geologic strata and at similar depths for comparison during closure of the UMCDF. From the sampling,  
26    the background concentration for each constituent will be established at each depth interval.

27  
28    Wide variations in the concentration of hazardous constituents in background samples will not be  
29    acceptable. The mean of each hazardous constituent concentration of the background samples (not  
30    including the background sample with the highest concentration of that constituent) must be compared to  
31    the background sample with the highest concentration of that constituent. If the difference is within four  
32    sample standard deviations of the mean (two sample standard deviations if log values are being used  
33    rather than actual values as with metals), then the background sample with the highest constituent  
34    concentration may be included in the background set. Otherwise, another background sample will be  
35    obtained that meets these criteria.

36  
37    The Quality Assurance Project Plan for background soil sampling and analysis to be conducted as part of  
38    the closure requirements for the UMCDF is included in Attachment I-4.

39

1 found, additional sampling as described for chemical agent-related areas will be conducted until the  
2 extent of contamination is determined.

3

4 If soil removal is necessary, excavation will be conducted until the soil clean-closure target level is  
5 achieved. All residue generated will be characterized in accordance with 40 CFR 261, Subpart C,  
6 "Characteristics of Hazardous Waste."

7

8 The independent registered professional engineer will review documentation of the UMCDF soils  
9 investigation, which will be included in the final UMCDF closure certification. Documentation of the  
10 soils investigation and all records of soil/pavement removal will be maintained in the engineer's logs.

11

12 I-1e(2) Disposal or Decontamination of Equipment, Structures, and Soils

13 [40 CFR 264.114; OAR 340-104-0001]

14

15 During closure of the UMCDF, wastes will be generated from closure activities. At or before final  
16 closure, all hazardous wastes to be thermally treated that are generated during closure will be processed  
17 through one of the UMCDF incinerators or the mobile incinerator. (If a mobile incinerator is not  
18 permitted and available for use at UMCDF closure, these wastes will be containerized and shipped offsite  
19 to an approved hazardous waste treatment, storage, or disposal facility.) Hazardous wastes generated  
20 during closure that will not be thermally treated (e.g., brine salts) will be containerized and shipped offsite  
21 to an approved hazardous waste treatment, storage, or disposal facility. Waste management during  
22 closure will be in accordance with the RCRA permit (for wastes such as ash, brine salts, etc., that are  
23 routinely generated during the operating life of the UMCDF) and in accordance with the "Standards  
24 Applicable to Generators of Hazardous Waste" (40 CFR 262) for waste(s) that may be unique to closure  
25 activities.

26

27 All wastes from the final chemical agent demilitarization campaign will be removed from the UMCDF  
28 prior to commencement of closure.

29

30 It is not anticipated that soil removal will be necessary during closure because any incidents involving  
31 chemical agent release (or other hazardous waste) during the operational life will be addressed under the  
32 UMCDF Contingency Plan (Section G). If soil removal is necessary during closure, residues containing  
33 detectable levels of chemical agent will be thermally treated in the mobile incinerator, and disposed of at  
34 approved offsite hazardous waste treatment, storage, or disposal facility. (If a mobile incinerator is not  
35 permitted and available for use at UMCDF closure, these wastes will be containerized and shipped offsite  
36 to an approved hazardous waste treatment, storage, or disposal facility.)

37

1 I-1e(3) Closure of Disposal Units/Contingent Closures [40 CFR 270.14(b)(13), 270.17(f), 270.18(h),  
2 270.21(e), 264.197(b), 264.197(c)(1), 264.228(a)(2), 264.228(c)(1)(i), 264.258(c)(1)(i),  
3 264.310(a), 264.601; OAR 340-105-0014, 340-104-0001]

4

5 The Chemical Stockpile Disposal Program will not have disposal units. Therefore, the requirements of  
6 this section are not

I-1c-7

UMCDF-I-1

1 I-1e(4) Closure of Containers [40 CFR 264.178; OAR 340-104-0001]

2  
3 Container Handling Building

4  
5 It is anticipated that the Container Handling Building will be one of the first hazardous waste  
6 management units to be decommissioned during UMCDF closure activities. All waste munitions and  
7 bulk items will have been processed through the UMCDF prior to initiation of UMCDF closure.

8  
9 Closure of the Container Handling Building will involve the following activities:

- 10  
11 • Initial 3X decontamination following final munitions/bulk items campaign (3X  
12 decontamination verification will be based on the final chemical agent processed and as per  
13 normal chemical agent monitoring during UMCDF operations). Decontamination procedures  
14 to be used are similar to those described previously for the Munitions Demilitarization  
15 Building. All interior surfaces will be decontaminated with the appropriate chemical agent  
16 decontamination solution provided in Table I-1-4. Spent decontamination solution will be  
17 collected in the drain system within the structure, placed in drums or portable tanks, and  
18 transferred to a spent decontamination holding tank in the Spent Decontamination System  
19 Room. All decontamination solution will be incinerated in the Liquid Incinerators.

20  
21 and

- 22  
23 • One or both of the following closure verification steps will be completed:

24  
25 Clean-Closure Sampling. Random and systematic sampling of the epoxy floor and sump  
26 coating system, respectively, will be conducted to confirm the effectiveness of the  
27 decontamination methods. Sampling methods will be in accordance with procedures  
28 established in SW-846 and as provided below.

29 For areas with less than 400 square feet, a minimum of four random scrape samples from the  
30 floor area coating and a minimum of one additional sample from each containment or  
31 collection sump and/or collection trench will be collected then analyzed (as per Section C-2,  
32 "Waste Analysis Plan") for all chemical agents processed at the UMCDF.

33  
34 In areas larger than 400 square feet, random scrape samples at a frequency of one per 100  
35 square feet will be collected. In areas with multiple sumps, a minimum of one sample per  
36 sump will be collected. Trench collection systems will be sampled at a frequency of one  
37 sample per 10 linear feet of trench.

38  
39 If analysis indicates nondetectable concentrations of all chemical agents, no additional  
40 decontamination will be conducted. If chemical agent is detected, then additional  
41 decontamination and verification analysis steps may be undertaken (with manual collection of

I-1d-1

UMCDF.I-1



1 Liquid Incinerators or mobile incinerator for incineration. (If a mobile incinerator is not permitted and  
2 available for use at the UMCDF closure, these wastes will be containerized and shipped offsite to an  
3 approved hazardous waste treatment, storage, or disposal facility.) It is not anticipated that physical  
4 decontamination methods such as grit blasting will be necessary to complete closure. If grit blasting is  
5 employed, residue management will be as indicated for the Brine Reduction Area closure procedures.  
6

#### 7 J-Block Closure Activities

8  
9 The removal and treatment/disposal of the munitions-related hazardous waste inventory stored in  
10 J-Block will be performed prior to initiation of closure.

11  
12 Following removal of the waste inventory, each permitted igloo in J-Block that has been used to  
13 store hazardous waste will be air monitored as described in Section I-1e(d). If the monitoring  
14 results show no agent exceeding its respective vapor concentration as defined in Section I-1e(f), the  
15 igloo will be designated as a 3X-decontaminated structure. If the monitoring results indicate agent  
16 contamination exceeding the 3X level, the structure will be decontaminated to the 3X level  
17 following the appropriate agent decontamination procedures. Decontamination will be verified by  
18 performing additional air monitoring after the decontamination process. If air monitoring  
19 continues to indicate the presence of contamination, the sequence of decontamination followed by  
20 air monitoring will be repeated until a 3X designation is verified by the air monitoring. The waste  
21 and residue resulting from the decontamination will be collected, sampled, and analyzed for  
22 hazardous waste characteristics and managed in accordance with applicable requirements.  
23

24 Permitted J-Block igloos that were not used for hazardous waste storage will be considered clean  
25 closed without additional activities. During the closure certification process, the independent  
26 registered professional engineer will evaluate UMCDF documentation to ensure that the clean  
27 closure determination is substantiated.  
28

29 Following air monitoring and decontamination of the igloos located in J-Block, the facility  
30 operating records will be reviewed to identify any igloos that represent a high probability for  
31 contamination. This would include those igloos in which liquid wastes were managed and waste  
32 spills occurred. These igloos will be regarded as worst-case baseline for contamination and subject  
33 to sampling and analysis to detect contamination. If the sampling and analysis results for these  
34 worst-case igloos do not indicate the presence of contamination at levels exceeding clean-closure  
35 levels, it will then be concluded that the remaining igloos meet the criteria for clean closure. The  
36 closure process is illustrated in Figure I-1-6.  
37

#### 38 I-1e(5) Closure of Tank Systems [40 CFR 264.197; OAR 340-104-0001]

39  
40 The UMCDF will have three separate permitted hazardous waste tank systems as well as two RCRA-  
41 regulated (less than 90 day storage) but nonpermitted systems: LAB Chemical Waste Storage Tank

1 Following 5X decontamination and certification by the UMDA ~~UMCD~~ Commander's representative and  
2 the independent engineer, the scrap will be released from government custody. The 5X decontamination  
3 verification techniques will be as done during normal UMCDF operations for munitions scrap.

4  
5 The floor and secondary containment sump will be finally decontaminated by employing one or both of  
6 the following procedures:

- 7  
8 • Clean-Closure Sampling. Random and systematic sampling of the epoxy floor and sump  
9 coating system, respectively, will be conducted to confirm the effectiveness of the  
10 decontamination methods. Sampling methods will be in accordance with procedures  
11 established in SW-846 and as provided below.

12  
13 In floor areas with less than 400 square feet, a minimum of four random scrape samples from  
14 the floor area coating and a minimum of one additional sample from each containment or  
15 collection sump and/or collection trench will be collected, then analyzed (as per Section C-2,  
16 "Waste Analysis Plan") for all chemical agents processed at the UMCDF.

17  
18 For floor areas larger than 400 square feet, random scrape samples at a frequency of one per  
19 100 square feet will be collected. In areas with multiple sumps, a minimum of one sample  
20 per sump will be collected. Trench collection systems will be sampled at a frequency of one  
21 sample per 10 linear feet of trench.

22  
23 If analysis indicates nondetectable concentrations of all chemical agents, no additional  
24 decontamination will be conducted. If a chemical agent is detected, then additional  
25 decontamination and verification analysis steps may be undertaken (with manual collection of  
26 the liquid using portable equipment) or the procedure for coating system removal, below, will  
27 be employed.

- 28  
29 • Coating System Removal. The epoxy coating and the top 0.25 centimeter of concrete (or to  
30 exposed aggregate, whichever occurs first) will be removed by grit-blast techniques.  
31 Grit-blast residues will be collected, containerized, and handled as hazardous waste in a  
32 manner consistent with the last chemical agent processed. The final decontamination step  
33 will be to rinse the walls, floor, sumps, and trenches with fresh water or to steam clean.  
34 Rinsewater or condensate will be manually collected from the sump(s) and incinerated in the  
35 Liquid Incinerators. No additional sampling of the decontaminated area will be conducted.

36  
37 Individual unit closure (i.e., partial closure) of the Agent Collection Tank System will be considered  
38 complete following completion of the above tasks. The certifying engineer will note the date of  
39 completion in the closure logbook. Closure certification will be made following completion closure of  
40 the Spent Decontamination Holding Tank System and of the 3-month postdecontamination chemical  
41 agent monitoring program for the entire Munitions Demilitarization Building.

1 I-1e(6) Closure of Waste Piles [40 CFR 270.18(h), 264.258; OAR 340-105-0014, 340-104-0001]

2

3 The UMCDF will not have any waste pile management units. Therefore, the requirements of this section  
4 are not applicable.

5

6 I-1e(7) Closure of Surface Impoundments [40 CFR 270.17(f), 264.228; OAR 340-105-0014,  
7 340-104-0001]

8

9 The UMCDF will not have any surface impoundment management units. Therefore, the requirements of  
10 this section are not applicable.

11

12 I-1e(8) Closure of Incinerators [40 CFR 264.351; OAR 340-104-0001]

13

14 The incinerators, including their pollution abatement systems, will be shut down and permanently taken  
15 out of service, sequentially, as indicated in Table I-1-9. Any remaining waste materials that are part of  
16 the chemical agent demilitarization campaign will be processed through the respective system prior to  
17 initiation of closure. Similar to normal operational procedures, all of the incineration systems will then be  
18 initially 3X decontaminated. To augment the closure of the UMCDF, incinerator closure and disassembly  
19 will occur in a sequential manner with the decontamination residues and disassembled parts thermally  
20 treated in one of the remaining active units. Although not addressed in this RCRA permit application, a  
21 mobile incinerator will be brought to the UMCDF to support closure as the onsite incinerators are  
22 decommissioned. If a mobile incinerator is not permitted and available for use at the UMCDF closure,  
23 these wastes will be containerized and shipped offsite to an approved hazardous waste treatment, storage,  
24 or disposal facility.

25

26 Disassembled incineration equipment will be decontaminated as follows:

27

28 • Deactivation Furnace System

29

30 3X From outlet of afterburner through pollution abatement system

31

32 5X From munitions feed chute through heated discharge conveyor, and through afterburner

33

34 • Dunnage Incinerator

35

36 3X From outlet of Dunnage Incinerator afterburner through pollution abatement system

37

38 5X From ram charger through ash dropout chute, and through Dunnage Incinerator  
39 afterburner

1 In areas larger than 400 square feet, random scrape samples at a frequency of one per 100  
2 square feet will be collected. In areas with multiple sumps, a minimum of one sample per  
3 sump will be collected. Trench collection systems will be sampled at a frequency of one  
4 sample per 10 linear feet of trench.

5  
6 If analysis indicates nondetectable concentrations of all chemical agents, no additional  
7 decontamination will be conducted. If a chemical agent is detected, then additional  
8 decontamination and verification analysis steps may be undertaken (with manual collection of  
9 the liquid using portable equipment) or the procedure for coating system removal, below, will  
10 be employed.

- 11  
12 • Coating System Removal. The epoxy coating and the top 0.25 centimeter of concrete (or to  
13 exposed aggregate, whichever occurs first) will be removed by grit-blast techniques.  
14 Grit-blast residues will be collected, containerized, and handled as hazardous waste in a  
15 manner consistent with the last chemical agent processed. The final decontamination step  
16 will be to rinse the walls, floor, sumps, and trenches with fresh water or steam clean.  
17 Rinsewater or steam cleaning condensate will be manually collected from the sump(s) and  
18 will be incinerated in the Liquid Incinerators or mobile incinerator, as applicable. (If a  
19 mobile incinerator is not permitted and is available for use at UMCDF closure, these wastes  
20 will be containerized and shipped offsite to an approved hazardous waste treatment, storage,  
21 or disposal facility.) Verification sampling and analysis will be conducted to confirm that the  
22 decontamination was effective.

23  
24 I-1e(9) Closure of Landfills [40 CFR 270.21(e), 264.310(a); OAR 340-105-0014, 340-104-0001]

25  
26 The UMCDF will not have any landfill units. Therefore, the requirements of this section are not  
27 applicable.

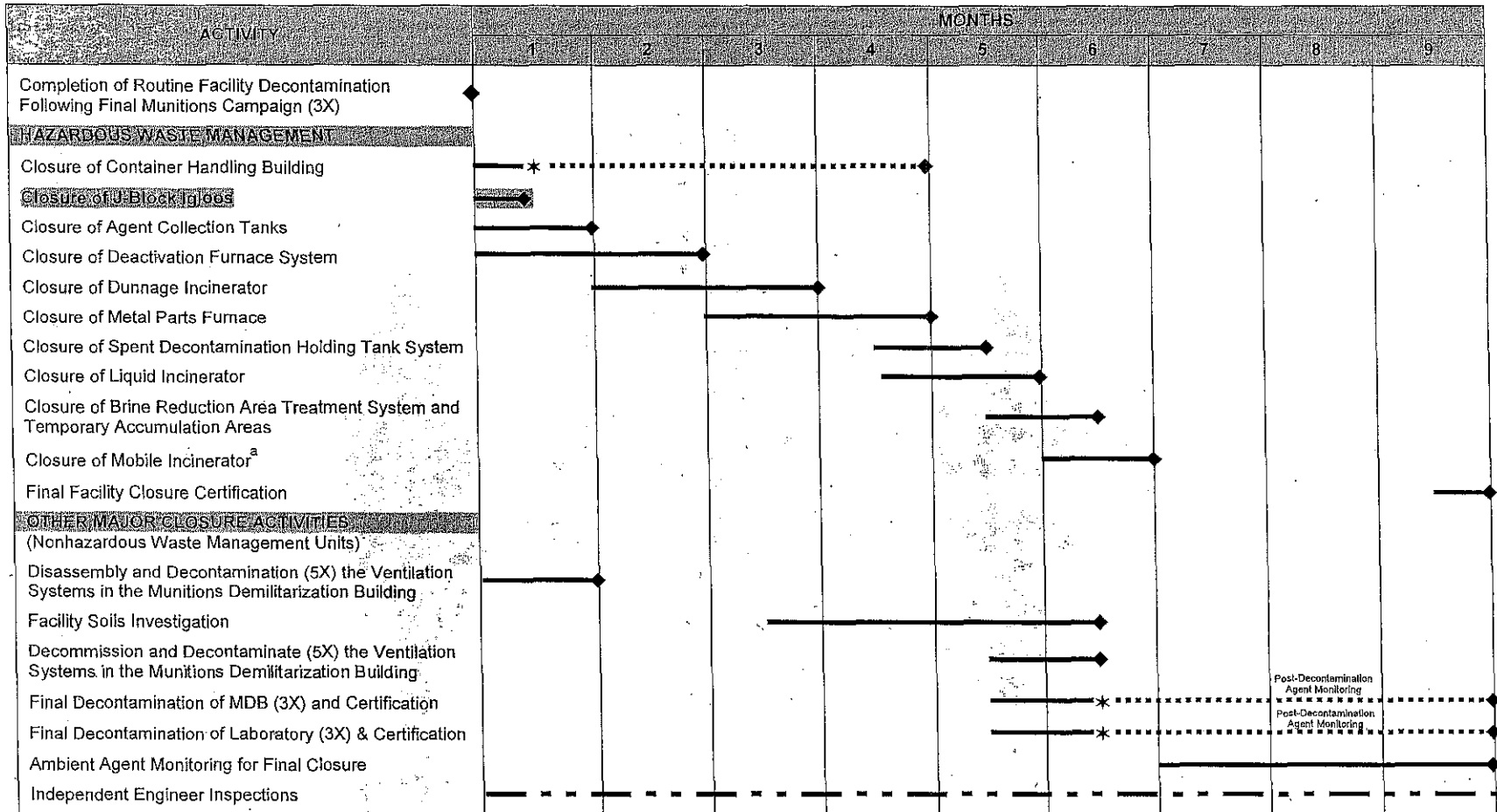
28  
29 I-1e(10) Closure of Land Treatment Facilities [40 CFR 270.20(f), 264.280(a) and (b); OAR  
30 340-105-0014, 340-104-0001]

31  
32 The UMCDF will not have any land treatment units. Therefore, the requirements of this section are not  
33 applicable.

34  
35 I-1e(11) Closure of Miscellaneous Units [40 CFR 264.601, 270.23(a)(2); OAR 340-104-0001,  
36 340-105-0014]

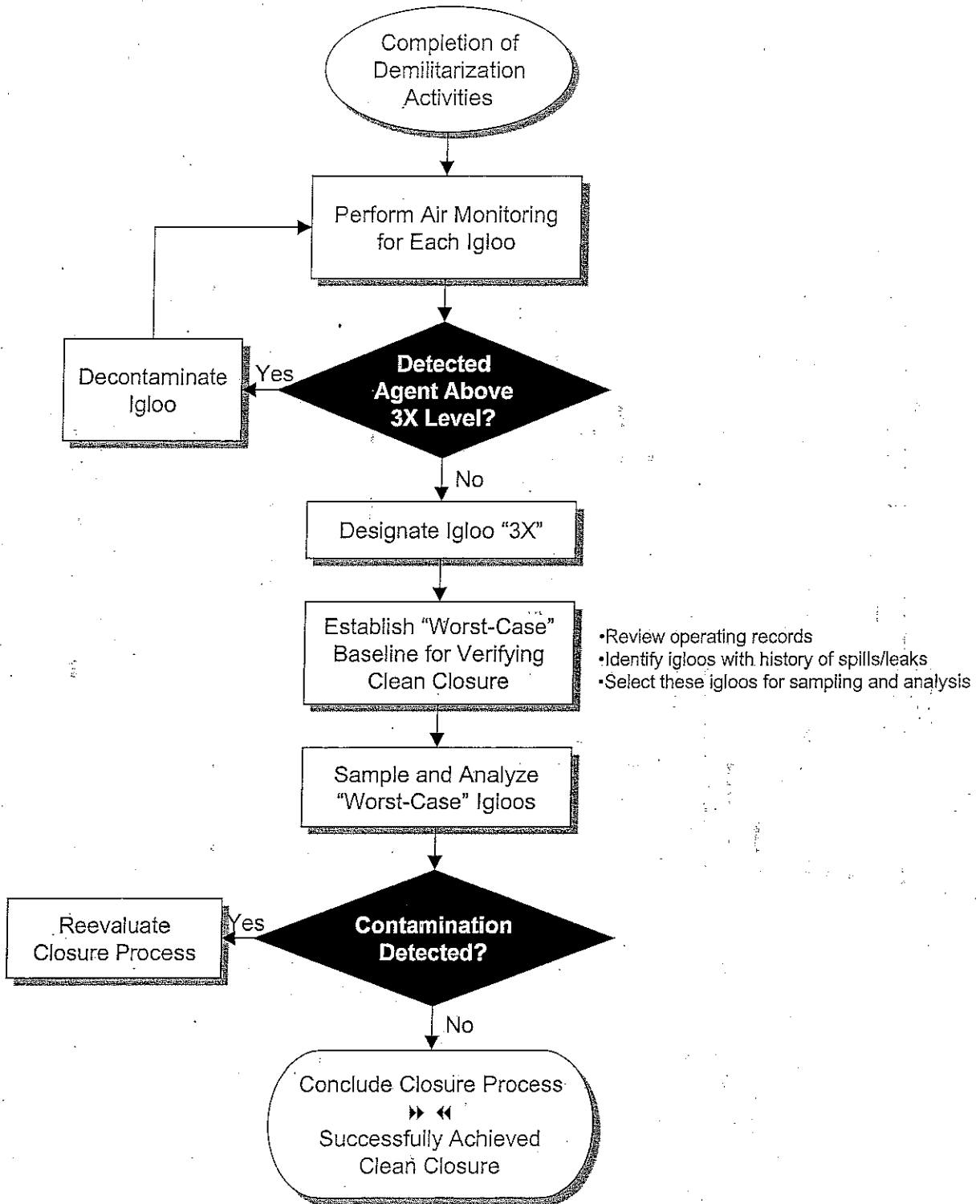
37  
38 There will be the following miscellaneous units at the UMCDF: two flash evaporator packages (each  
39 consisting of a flash evaporator, a heat exchanger, two circulation pumps, and associated piping) and

1



<sup>a</sup> Closure of the mobile incinerator is not addressed in this Application. The RCRA operating permit for the mobile incinerator is separate from and independent of this Application.

NOTE: Facility closure is anticipated to take nine months to complete based on conditions during closure, the overall closure period may take up to one year.



1  
2

Figure I-1-6: J-Block Closure Process Flow Diagram

I-1e-11

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Table I-1-1  
 UMCDF FACILITY CLOSURE SUMMARY

Facility or Unit	Description of Closure Activity Following Removal From Service
<u>Preclosure Activities Following Final Chemical Agent Processing Campaign</u>	
Initial decontamination (3X) <sup>a</sup>	Initial decontamination (3X) <sup>a</sup> and certification of all areas as would be done during routine shutdown or during changes in chemical agent, bulk items, or munitions type demilitarization processing.
<u>Closure of RCRA-Regulated Hazardous Waste Management Units</u>	
Container Handling Building	All waste munitions and bulk items will be completely processed prior to commencement of closure. The structure will be decontaminated to 3X <sup>a</sup> level. The structure will remain intact following closure. Decontamination solution will be incinerated in the Liquid Incinerators.
<del>J-Block 1c10s</del>	<del>All waste will be completely processed prior to commencement of closure. The structure will be decontaminated to 3X<sup>a</sup> level and will also be evaluated for possible hazardous waste contamination other than chemical agent. The structure will remain intact following closure. Decontamination solution will be incinerated in the liquid incinerators.</del>
Agent Collection Tank System and Spent Decontamination Holding Tank System	Agent tank systems will be emptied prior to commencement of closure. Two of the three spent decontamination holding tanks will be emptied and removed from service, while the third will remain in service until the Liquid Incinerators are closed. Tank systems will be initially decontaminated (3X) <sup>a</sup> and disassembled, followed by final decontamination (5X) <sup>a</sup> in the Metal Parts Furnace, Dunnage Incinerator, or mobile incinerator <sup>b,d,e</sup> of all tank system components except those portions associated with the structure of the Munitions Demilitarization Building (i.e., concrete).
Deactivation Furnace System (feed chute, rotary retort, cyclone, heated discharge conveyor, and afterburner)	Initial decontamination (3X) <sup>a</sup> and incinerator disassembly will be followed by final decontamination (5X) <sup>a</sup> of disassembled parts <sup>c</sup> in the Metal Parts Furnace, Dunnage Incinerator, or mobile incinerator. <sup>b,d,e</sup>
Dunnage Incinerator (ram charger, Dunnage Incinerator lift, primary)	Initial decontamination (3X) <sup>a</sup> and incinerator disassembly will be followed by final decontamination (5X) <sup>a</sup> of disassembled

Table I-1-2  
 MAXIMUM WASTE INVENTORY<sup>a</sup>

<u>Hazardous Waste Management Unit</u>	<u>Waste</u>	<u>Volume</u>	<u>Unit</u>
Spent Filter Media Storage Area	Spent filter media	5,453 gallons	N/A
Liquid Waste Holding Tank System (one 595-gallon tank and ancillary equipment <sup>b</sup> )	Decontamination solution	655 gallons	N/A
<u>I Block Storage Igloos</u>	<u>Secondary waste from UMCDF operations</u>	<u>1,263,240 gallons</u>	<u>N/A</u>
<u>MDB Containment Building</u>	<u>Munitions and bulk containers</u>	<u>36.8 cubic yards</u>	<u>N/A</u>

- 1
- 2 NOTES:
- 3 <sup>a</sup>The maximum waste inventory is based on the quantity of waste that may be on site during the maximum extent of
- 4 operation of the Chemical Stockpile Disposal Program facility. These estimates are not reflective of wastes that
- 5 will be onsite when closure is commenced. As mandated by Public Law 99-415, all chemical agents and agent-
- 6 contaminated munitions must be completely processed through the facility prior to closure.
- 7 <sup>b</sup>Volume of ancillary equipment (piping, sumps, trenches, etc.) is assumed to be 10 percent of tank vessel capacity.
- 8 <sup>c</sup>Volume of pumps and piping estimated to be 20 percent of total waste management unit volume.
- 9 N/A = Not applicable



Table I-1-3  
 FACILITY CLOSURE SEQUENCE

Closure Sequence <sup>a</sup>	Hazardous Waste Management Unit	Other Closure Activity Underway Nonhazardous Waste Management Units	Estimated Time to Complete Closure or Activity
1	Closure of Container Handling Building (3X), <del>Collection Tank System (3X)</del> and Closure of Agent Collection Tank System (5X)	Disassembly and decontamination (5X) of processing equipment (e.g., Rocket Drain Station, Rocket Shear Station, Bulk Drain Station, mechanical demilitarization equipment, conveyors, etc.).	4 months (includes postdecontamination chemical agent monitoring of holding areas)
	Partial Closure Spent Decontamination Holding Tank System (5X)	Disassemble and decontaminate (5X) all but one spent decontamination holding tank.	
2	Closure of Deactivation Furnace System (5X) (feed chute, rotary retort, heated discharge conveyor, cyclone, and afterburner)	Disassembly of Deactivation Furnace System pollution abatement system. Decontamination will be by nonthermal methods (e.g., grit blast or hydroblast and high pressure general decontamination solution wash).	2 months
3	Closure of Dunnage Incinerator (5X) (conveyor, primary chamber, and afterburner)	Disassembly of Dunnage Incinerator pollution abatement system. Decontamination will be by nonthermal methods (e.g., grit blast or hydroblast and high pressure general decontamination solution wash).	2 months

1 Transients: Level F

2

3 v. Brine Reduction Area or Baghouse, maintenance operations

4 All Personnel:

5 Dust Protective Clothing

6

7 w. Emergency Operations

8 Refer to the chemical agent, process equipment, and explosive emergency procedures in Section G-4e, and  
9 maintenance safety procedures [Section G-3e] for specified levels of protective clothing.

10

11 ~~Block Storage-normal operations~~

12 ~~Operators: Level F~~

13 ~~Supervisors: Level F~~

14 ~~Transients: Level F~~

# **ATTACHMENT B**

## ***Fact Sheet*** ***(Without original attachments)***

Proposed Modification of the  
Hazardous Waste Storage and Treatment Permit and Permit  
Application for the Umatilla Chemical Agent Disposal Facility

Permit Modification No. UMCDF-00-0004-WAST(3)  
“Permitted Storage in J-Block”

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State of Oregon  
Department of  
Environmental  
Quality

## FACT SHEET

**Proposed Modification of the  
Hazardous Waste Storage and Treatment Permit  
for the  
Umatilla Chemical Agent Disposal Facility  
(Permit No. ORQ 000 009 431)**

**Permit Modification No. UMCDF-00-004-WAST(3)  
“Permitted Storage in J-Block”**

### Introduction

In February 1997 the Environmental Quality Commission (“Commission” or EQC) and the Department of Environmental Quality (“Department” or DEQ) issued a Hazardous Waste Storage and Treatment Permit (HW Permit) to the United States Army<sup>1</sup> to build and operate the Umatilla Chemical Agent Disposal Facility (UMCDF). Construction of UMCDF started in June 1997 and is now essentially complete. The UMCDF is currently in a “systemization”<sup>2</sup> phase prior to the start of actual hazardous waste treatment operations.

On February 29, 2000 the United States Army’s Project Manager for Chemical Stockpile Disposal (PMCS D) submitted a Class 3 Permit Modification Request (PMR) UMCDF-00-004-WAST(3) “Permitted Storage in J-Block.” This Fact Sheet describes the proposed modification and provides background information concerning the basis for the proposed modification.

The PMR proposed the addition of 58 storage “igloos” in “J-Block” as permitted storage units to manage wastes generated during UMCDF operations. Storage igloos are semicircular concrete structures with 25 x 80-foot floors and a ceiling elevation of 12’-9” at the center. Each igloo is covered with a waterproof membrane and about two feet of earth and gravel. Igloos are equipped with lightning rods and have two air vents, one in the door and one at the rear. The igloos at the Umatilla Chemical Depot (UMCD) are grouped together into areas designated as “blocks.” The “J-Block” storage area contains 88 igloos located directly south of K-Block (the area where the chemical weapons are stored) and to the west of UMCDF.

Further information concerning the Class 3 permit modification process is provided below. This Fact Sheet also contains information about UMCDF, a detailed discussion of the PMR, why the PMR is needed, and information on how to provide comment on the proposed modifications. Attachment A is the Public Notice that was mailed to interested parties that contains detailed information concerning information repositories and the dates of the scheduled public comment

<sup>1</sup> There are three “Permittees” named on the UMCDF HW Permit. The U.S. Army Umatilla Chemical Depot and the U.S. Army Project Manager for Chemical Stockpile Disposal (PMCS D) are named as Owner and Operator of UMCDF. Washington Demilitarization Company (the Army’s construction and operations contractor) is named as a co-operator of UMCDF.

<sup>2</sup> Systemization is a pre-operational testing phase that involves testing components, instruments, and associated equipment using non-hazardous materials and waste feeds (such as simulated munitions filled with ethylene glycol to test conveyors, controls, and feed mechanisms).

period and public hearing related to the proposed modification. Attachments B and C provide a summary of proposed changes and the actual text changes proposed for specific pages and/or sections of the HW Permit and HW Permit Application, respectively.

### **Class 3 Permit Modification Process**

Regulations regarding the permitting and operation of hazardous waste treatment, storage, and disposal facilities are known as the "Resource Conservation and Recovery Act" (RCRA) regulations. They are contained in Title 40 of the Code of Federal Regulations (CFR). In accordance with the RCRA regulations, the State of Oregon has been authorized by the U.S. Environmental Protection Agency to implement its own hazardous waste program. Oregon has adopted RCRA regulations as Oregon Administrative Rules.

RCRA regulations identify three "classes" of permit modifications. Class 1 modifications are the least significant of permit modifications and involve only minor changes to a permit, such as correction of typographical errors, updates to addresses or telephone numbers, or an upgrade of equipment. Class 2 modifications are considered significant changes to the permit and are used primarily to address improvements in technology and management of the facility. Class 3 modifications are considered very significant permit modifications and are used only for major changes to the facility or its operation. This PMR was considered a Class 3 modification because it proposes a significant increase in the amount of permitted hazardous waste storage at UMCDF.

The RCRA regulations have specific requirements for each class of modification. Class 2 and 3 permit modifications require opportunities for public comment. When this Class 3 Permit Modification Request was submitted there was an initial public comment period of more than 60 days. A public information meeting was held on April 4, 2000. The Department received several public comments expressing concerns about the amount of storage capacity requested and how it would be managed.

After reviewing the PMR and the comments received during the initial public comment period the Department issued a Notice of Deficiency (NOD) on June 7, 2000. The Permittees responded to the first NOD on August 7, 2000. The Department subsequently issued a second NOD on January 26, 2001. The Permittees replied to the second NOD on April 16, 2001 and then submitted supplemental information on August 28, 2001. After review of the NOD responses and the supplemental information, the Department has concluded that issues have been adequately addressed. The application to modify the UMCDF Hazardous Waste Permit to add permitted storage in J-Block is now substantially complete. Accordingly, the Department has prepared these draft revisions to the UMCDF HW Permit and HW Permit Application for public review and comment.

In accordance with the RCRA regulations for Class 3 permit modification requests, the proposed modifications are being sent out for public review again. A 45-day public comment period on the proposed modification will be open from February 22 through close of business on April 9, 2002. A public hearing will be held on March 27, 2002 in Hermiston, Oregon. Please see Attachment A for details about the public comment period, the public hearing, and how you can submit comments to the Department.

Because the proposed permit modification would effect major changes to the UMCDF HW Permit, the final decision on this PMR will be made by the EQC. (The EQC is a five-member citizen commission appointed by the Governor that serves as DEQ's rule-making and policy board.) At the conclusion of this public comment period, the draft revisions to the HW Permit and Permit Application will be amended as appropriate in response to comments received. The Department will prepare a staff report for EQC review and make a recommendation on whether the UMCDF HW Permit should be modified as proposed. Consideration of this proposed modification and decision by the EQC is anticipated during their meeting scheduled for June 6-7, 2002.

### **The Umatilla Chemical Agent Disposal Facility (UMCDF)**

The UMCDF is located in northeastern Oregon at the Umatilla Chemical Depot, about seven miles west of Hermiston, Oregon (about 175 miles east of Portland, Oregon). The address is 78072 Ordnance Road, Hermiston, OR 97838-9544. The UMCDF is a hazardous waste storage and treatment facility that will use four incinerators to destroy a stockpile of about 3717 tons of chemical warfare agents that has been stored at the Umatilla Chemical Depot (UMCD) since 1962. The chemical agents stored at UMCD include nerve agents and blister agents in liquid form. The nerve agents ("GB" and "VX") are contained in munitions, such as rockets, projectiles, and land mines, and in bulk items, such as spray tanks, bombs, and "ton containers." The blister agent ("HD," also referred to as "mustard") is stored only in ton containers.

UMCDF includes process lines to drain the liquid agents from the munitions and bulk items and to remove explosives and propellants ("energetics"). Two liquid injection incinerators are used to destroy the liquid nerve and blister agents. The Deactivation Furnace System is a specialized type of rotary kiln that is used to destroy the energetic components. The Metal Parts Furnace provides high temperature treatment of the metal munition casings and bulk containers to ensure complete destruction of any residual agent remaining in them. The processing of the munitions and containers will produce a variety of "secondary wastes" that in some cases must be stored until further treatment can be applied to remove any residual contamination.

### **Need for the Proposed Modifications**

The need for storage facilities for secondary process wastes generated by the operation of the UMCDF to destroy the stockpiled munitions and bulk items is not a new development. Removal of the munitions and bulk items from storage in K-Block, transporting them to UMCDF and unpacking or other preparations for processing will generate large quantities of wastes often referred to as "dunnage." Operation of the various treatment units will produce a variety of wastes such as ash residues and replacement carbon and other filter materials from the carbon filters installed on each of the incinerators and on the ventilation system. Operation and maintenance activities in toxic areas of UMCDF will generate large quantities of used protective suits, as well as replaced equipment items, maintenance residues and spill cleanup residues.

Because many of the secondary process wastes require further treatment through one of the UMCDF incinerators to destroy their associated agent contamination, they must be stored until that additional treatment can be provided. The highest priority assignment for the incinerators is the destruction of the munitions and the agents they contain. Consequently, the amount of time the incinerators will be available to process secondary wastes will initially be very limited and much of the secondary process waste will have to be stored for extended periods.

When the UMCDF HW Permit was developed it was assumed that secondary process wastes would be returned to UMCD custody for storage in empty igloos, presumably in K-Block igloos emptied of munitions as a result of their transfer to UMCDF. Under this assumption, provision for permitted storage capacity for the secondary process wastes would have been made in UMCD's Hazardous Waste Storage Permit instead of the UMCDF HW Permit. The Army has now determined, however, that UMCDF should retain full responsibility for all aspects of UMCDF operations, including operation of the storage facilities required for managing secondary process wastes. The 58 designated igloos in J-Block that have been assigned by UMCD to UMCDF provide a maximum storage capacity for up to 1,263,240 gallons of waste, based on an estimated capacity of 21,780 gallons per igloo.

Although expressed as gallons, the indicated capacity would be occupied by a wide variety of containerized wastes in both solid and liquid form. Containers used could include crates, boxes, fiber and metal drums, and other suitable containers for solids and metal or polymer drums for liquids. Containers for both solids and liquids are expected to be of a wide range of sizes and all containerized liquid wastes would be stored on spill pallets.

During the initial comment period, several commenters expressed concern about the large storage capacity requested. The capacity requested is based on the maximum estimated storage volume of each igloo and does not imply that all of that volume would be utilized. Because of uncertainties about the quantities of various wastes to be generated and about the amount of waste that can be processed in parallel with destruction of the munitions, the requested storage capacity is intentionally conservative. The ability to fully utilize that capacity is also hampered by requirements for segregation of the wastes by chemical compatibility, source or type, degree of agent contamination and other factors.

### **Proposed Modifications of the UMCDF HW Permit**

The proposed modification will add storage capabilities that are not currently allowed by the HW Permit. The 58 J-Block igloos proposed for permitted storage will allow containerized liquid and solid wastes to be stored for periods greater than 90 days. The proposed modification adds two new definitions to Module I ("Standard Permit Conditions") that support distinctions between waste classifications made by the new container storage conditions and seven new Permit Conditions to Module III of the HW Permit ("Container Storage") concerning management of J-Block wastes.



The two new definitions in Module I define the meanings of “higher level waste” and “lower level waste” and form the basis for segregating agent-contaminated wastes stored in J-Block by level of contamination.<sup>3</sup> Wastes with higher levels of agent contamination (“higher level waste”) are considered to pose a higher risk of agent leakage during storage than those with lower levels (“lower level waste”). Segregation of “higher level wastes” to specific igloos allows those igloos to be operated with additional controls to ensure that any leakage remains within the igloo and is not released to the outside air. It also allows requirements for monitoring to detect any leakage within the igloo and an appropriate corrective response.

Requiring monitoring prior to any entry helps to ensure the safety of personnel entering the igloo for work or to conduct regular weekly inspections. Recognizing that there is very little, if any, potential for agent leakage from containers of “lower level waste,” there are no requirements for monitoring of igloos used for “lower level waste” storage. Weekly inspections are required for all storage igloos in J-Block.

The first four of the proposed Permit Conditions to be added to Module III (Conditions III.B.6. through III.B.9.) limit the types and categories of waste that can be stored; establish maximum waste quantities that can be stored in each igloo; allow “non-process” wastes (hazardous wastes generated in small quantity from operations within UMCDF that have no potential for agent contamination, such as used lubricants or coolants from administrative support areas) to be accumulated for up to one year; and identify the specific requirements for segregation of the wastes in J-Block storage by source, type of agent contamination, and level of agent contamination.

The last three proposed Module III Permit Conditions (Conditions III.B.10. through III.B.12.) define the more stringent requirements for storage of “higher level waste.” Condition III.B.10. lists specific improvements that must be made to an igloo prior to its use for storage of “higher level waste.” Condition III.B.11. requires real-time monitoring of the interior air of igloos storing “higher level waste” at least weekly, and prior to any entry. Condition III.B.12. specifies additional air monitoring and corrective activities in the event that agent is detected during the required weekly monitoring of “higher level waste” storage igloos.

The proposed modification makes a few other minor changes in Module III to reflect the J-Block storage area, and includes an updated “Part A” RCRA Application. The Part A document (Attachment 1 to the HW Permit) was updated to add process design capacities for the proposed J-Block permitted storage and for the storage in the Munitions Demilitarization Building (MDB) permitted previously. Permittee signatories were originally updated, but are now again out of date due to subsequent personnel changes. The signature page will be corrected before the Part A is finalized.

Attachment B contains the specific changes proposed for the UMCDF HW Permit. The proposed modifications to the UMCDF HW Permit Application are in Attachment C and discussed below.

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<sup>3</sup> The terms “higher level waste” and “lower level waste” correspond to the Army’s designation of “1X” and “3X” wastes, respectively. The HW Permit Application still refers to the 1X and 3X designations per Army protocol, but the Department chose not to use the 1X and 3X terminology for the purposes of the UMCDF HW Permit.

### **Proposed Modifications of the UMCDF HW Permit Application**

The proposed changes to the HW Permit Application and its various attachments provide more detail on the location, access, design and structural features of the storage units and the regulatory requirements and process considerations contributing to their operation. Because of the long time frame between the original submittal of this PMR and the preparation of the draft HW Permit language some of the changes originally proposed have been superseded by other permit modifications. The most significant and numerous changes are to Sections B and D of the HW Permit Application, but each of the Sections originally proposed for revision is discussed below.

**Section B, Facility Description:** This section is expanded to provide drawings showing J-Block, the designated igloos to be used, the access routes, and the related information additions and changes. New sheets are added to two drawings and one new figure is added. Editorial changes are made to a number of other figures.

**Section C, Waste Characteristics:** Only minor text changes are proposed. Title pages of three attachments are amended and the changes are incorporated in the section text. The monitoring criteria used by the Army for the "3X" determination are also added.

**Section D, General Process Information:** This section is expanded to describe the J-Block igloos, how they would be operated as permitted storage for containerized wastes, their maximum rated capacities, and the types of containers to be used. Figures were added illustrating the dimensions, structural design and features of the igloos. The original PMR proposed the addition of Section D-10. It is not included here because Section D-10 has been superseded by Permit Modification Request UMCDF-00-022-MISC(3), "Incorporation of 40 CFR 264 Air Emission Standards," currently under review by the Department.

**Section F, Procedures to Prevent Hazards:** Minor changes to the text include adding J-Block in discussions of access and site security, hazard avoidance and waste management precautions. Information on the Real-Time Analytical Platform (RTAP) and use of the RTAP in monitoring of J-Block igloos storing wastes with higher levels of agent contamination are included in Section F-1. A number of text changes originally proposed have already been incorporated by another Permit Modification approved since this proposed modification was initiated [UMCDF-01-015-INSP(2) "Update to Inspection Schedule and Associated Documents," approved by the Department on December 17, 2001].

**Section G, Contingency Plan:** Only very minor text changes were proposed, most or all of which have already been incorporated by another Permit Modification approved since this proposed modification was initiated [UMCDF-01-010-CONT(2) "Revision of Section G, Contingency Plan," approved by the Department on December 31, 2001]. Because Section G as originally proposed in this PMR has been superseded by a subsequent permit modification, no additional changes are necessary and it is not included in Attachment C.

**Section I, Closure Plan:** Minor modification of this section includes J-Block in the Closure process for UMCDF. Major modification and expansion of this section and of the Closure Plan for UMCDF will be necessary when the closure process is near initiation. Several commenters expressed concern about how the "closure" will be done and how inadequate this description is.

While the Department concurs with that general assessment, the Department believes that the appropriate time to revise the Closure Plan and provide the level of detail necessary is when the requirements for acceptable closure can be better evaluated.

**Minor Editorial Changes:** Editorial Changes of two types are made universally on pages throughout the sections affected by the proposed modification. Oregon Administrative Rule (OAR) references are updated to add one zero to the final set of numbers to reflect current practice; and references to Umatilla Depot Activity (UMDA) are updated to reflect the current name "Umatilla Chemical Depot" (UMCD) wherever the former name of the facility occurs. Pages, tables or figures on which either or both of these editorial changes are the only changes made are not included in the attached copies of change pages.

Attachment C provides copies of the change pages showing the proposed wording changes of the identified changes to the HW Permit Application.

### **Opportunity for Public Comment**

The Department, on the behalf of the Environmental Quality Commission, is inviting public comment on the proposed modification to the UMCDF HW Permit. The Department will review and consider all oral and written comments received during the comment period. Department staff will then prepare a report with a recommendation to the Environmental Quality Commission. The report will include the Department's response to all significant comments received during both public comment periods. The Commission is anticipated to make a final decision on the proposed modification to the UMCDF HW Permit in June 2002 at its regularly scheduled meeting. The Commission may decide to modify the HW Permit as proposed or with changes, or may decide against modifying the HW Permit.

### **How to Submit Comments on the Proposed Permit Modification**

The public comment period on this proposed Permit Modification will remain open from February 22 through close of business (5:00 p.m.) on April 9, 2002. Written comments may be submitted by e-mail, fax, or regular mail any time during the comment period, provided the comment is received by the Department no later than 5:00 p.m. on April 9, 2002. E-mail comments should be submitted to [knight.bill@deq.state.or.us](mailto:knight.bill@deq.state.or.us) and include the words "Public Comment" in the subject line. Comments submitted by facsimile transmission should be sent to (541) 567-4741. Comments sent by regular mail should be addressed to Mr. Wayne C. Thomas, Administrator, Chemical Demilitarization Program, 256 E. Hurlburt, Hermiston, Oregon 97838. There will be one opportunity for the public to provide oral comments to the Department: March 27, 2002 in Hermiston, Oregon (Hermiston National Guard Armory, 900 SE Columbia Drive, Hermiston, OR) beginning at 7:00 p.m. (See Attachment A for meeting details.)

### **For More Information**

For more information about this Permit Modification, or for information on UMCDF, please contact Bill Knight, Chemical Demilitarization Program, Hermiston office of the DEQ [Phone 541-567-8297 (ext. 25) or toll free in Oregon (800) 452-4011, E-mail to

knight.bill@deq.state.or.us. The Department's Chemical Demilitarization Program has prepared numerous fact sheets about the chemical weapons destruction process at the Umatilla Chemical Depot, available upon request:

**Attachments**

- A** Public Notice: Request for Comments and Notice of Public Hearing
- B** Change Pages for the Proposed Modification of the UMCDF HW Permit
- C** Change Pages for the Proposed Modification of the Permit Application

# **ATTACHMENT C**

## ***Response to Comments***

Proposed Modification of the  
Hazardous Waste Storage and Treatment Permit and Permit  
Application for the Umatilla Chemical Agent Disposal Facility

Permit Modification No. UMCDF-00-0004-WAST(3)  
“Permitted Storage in J-Block”

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**ATTACHMENT C**  
**RESPONSE TO COMMENTS**

Related to  
**Permit Modification Request UMCDF-00-004-WAST(3)**  
Permitted Storage in J-Block

The Department received three sets of comments during the initial public comment period for Permit Modification Request (PMR) UMCDF-00-004-WAST(3). The initial 60-day public comment period was open from February 29, 2000 to May 1, 2000. A public information meeting was held on April 4, 2000, in Hermiston, Oregon. Three written comments were received during the initial public comment period. After review of the public comments and initial resolution of technical and administrative issues raised by the PMR, the Department prepared a draft of revisions to the UMCDF Hazardous Waste Storage and Treatment Permit (HW Permit). The draft revisions to the HW Permit were issued for public comment on February 22, 2002. A 45-day public comment period was open from February 22 through April 9, 2002. A public hearing was conducted on March 27, 2002 in Hermiston (one oral comment was received). The Department received two written comments during the second public comment period.

During the initial PMR comment period the Department received written comments from Dr. Rod Skeen, representing the Confederated Tribes of the Umatilla Indian Reservation (CTUIR); Mr. Richard Condit, representing the "Oregon Wildlife Federation, GASP, Karyn Jones, Susan Jones, Deborah McCoy-Burns, and a number of other individuals..."; and Ms. Tamra J. Mabbott, Planning Director, representing Morrow County. During the second comment period the Department received written comments from the UMCDF Permittees and from the CTUIR (Dr. Skeen also provided oral comments during the public hearing held on March 27, 2002).

This "Response to Comments" responds to comments received during both comment periods. The numbered Responses to Comments (RTC) in the table reflect the comment (in most cases, the exact text) and its source, and the Department's response.

**RESPONSE TO COMMENTS**

Related to

**Permit Modification Request UMCDF-00-004-WAST(3)**

Permitted Storage in J-Block

RESPONSE TO COMMENT (RTC) NO.	COMMENT	DEPARTMENT RESPONSE
RTC-1	<p><b>From CTUIR Re: The justification for the proposed modification indicated on page 3 of the PMR:</b> <i>“Since approval of the UMCDF Permit, the UMCD has elected to transfer responsibility for secondary waste storage to the UMCDF, rather than UMCDF storing secondary waste in the UMCD-permitted igloos. Additional storage space in the J-Block igloos is needed to accommodate the UMCDF secondary waste prior to treatment.”</i></p> <p><b>Comment:</b> “From this statement it appears that under the current permit, secondary waste produced from the UMCDF is to be transferred to UMCD and stored in igloos. Hence, this modification represents simply a custodial issue on who will have control over the permitted storage site (J-Block) while in the waste is in the Igloos. However, this reviewer has not been able to find an explicit reference to the stated action of <i>“UMCDF storing secondary waste in the UMCD-permitted igloos.”</i>”</p>	<p>Under the current Permit there is no provision for storage of secondary wastes for periods longer than 90 days. Accordingly, any wastes requiring storage for periods longer than 90 days would necessitate a custodial transfer back to UMCD for storage in either J-Block or K-Block. Although such transfer, as correctly noted by the comment, is not explicit in the UMCDF Permit, it is clearly indicated in the UMCD RCRA Part B Storage Permit Application submitted March 24, 1999. For example, on page B-10: “Operational wastes will be generated during normal operations at both the UMCDF and UMCD. All operational wastes that cannot be characterized ‘agent free,’ as described in Section C, will be managed in the UMCD J- or K-Block Storage Areas.”</p> <p>As noted on page B-3 and elsewhere, the March, 1999 UMCD Storage Permit Application proposed a total of 39 J-Block igloos and 90 K-Block igloos as permitted storage, part of which was for the purpose of accommodating the UMCDF secondary wastes. The difficulties associated with multiple custodial transfers between the entities and significant waste characterization issues were partially instrumental in the Army’s withdrawal of the March, 1999 Application. The UMCD Part B Storage Permit Application submitted February 29, 2000, now under review, does not provide for UMCD storage of UMCDF secondary wastes.</p>



## RESPONSE TO COMMENTS

Related to

**Permit Modification Request UMCDF-00-004-WAST(3)**

Permitted Storage in J-Block

RESPONSE TO COMMENT (RTC) NO.	COMMENT	DEPARTMENT RESPONSE
RTC-2	<p><b>Continuation from CTUIR Re: The justification for the proposed modification indicated on page 3 of the PMR.</b></p> <p><b>Comment:</b> "The modified Waste Analysis Plan dated 07 January 2000, does indicate that permitted storage will be used for several waste streams including miscellaneous agent-contaminated liquid wastes; ACS, AQS, and SDS residues and maintenance wastes, noncombustible MDB maintenance waste; combustible MDB maintenance waste; PPE respirator carbon filter canisters, laboratory solid waste, demilitarization protective ensemble suits, and TAP gear. However, no mention is made on where the permitted storage is located."</p>	<p>The comment correctly notes that the January 7, 2000 revisions to the Waste Analysis Plan (WAP) are not specific about the location of the permitted storage indicated. The 58 J-Block igloos identified in this PMR are proposed as UMCDF permitted storage for the wastes indicated in the revised WAP and would also serve other associated storage functions as specifically indicated in the proposed changes to the HW Permit and supporting documents.</p>
RTC-3	<p><b>From CTUIR Re: Proposed addition to Module III, page 1 of 16:</b> <i>"An additional container storage area consists of 58 igloos (Igloos J-1723 through J-1774 and J-1777 through J-1782) in J-Block used to store secondary wastes. Wastes carrying codes shown in Section XIV of the Part A Permit Application may be stored in J-Block."</i></p> <p><b>Comment:</b> "Table 1 on the following page lists the <i>"Wastes carrying codes shown in Section XIV..."</i> As is evident from this table, this modification covers essentially all wastes that could be generated before, during, and after incineration. Hence, this modification appears to allow storage in J-Block of any material, including neat GB, VX, and HD for an indefinite period of time."</p>	<p>The PMR does not intend or seek authorization for the storage of neat agent in the proposed J-Block permitted storage. The Army has also indicated that chemical surety requirements applicable to both UMCD and UMCDF would not allow the storage of neat agent in J-Block. Specific changes have also been incorporated in the proposed Permit language issued by the Department to ensure clarity of intent:</p> <p>(1) the second sentence quoted has been removed, and (2) Permit Condition III.B.6 has been revised to include the specific requirement that "Munitions or bulk items that have not been treated in the Metal Parts Furnace or Deactivation Furnace System or neat agent shall not be stored in the permitted J-Block igloos."</p>

**RESPONSE TO COMMENTS**

Related to

**Permit Modification Request UMCDF-00-004-WAST(3)**

Permitted Storage in J-Block

RESPONSE TO COMMENT (RTC) NO.	COMMENT	DEPARTMENT RESPONSE
RTC-4	<p><b>From CTUIR Re: Proposed addition to Module III, page 8 of 16, Permit Condition III.B.6:</b> <i>“The Permittee shall only store the hazardous wastes listed in Attachment 2 of this Permit or waste codes listed in Attachment 1 of this Permit in the permitted J-Block igloos in accordance with the terms of this Permit.”</i></p> <p><b>Comment:</b> “Permitting the storage of the hazardous wastes listed in <i>“Attachment 2 of this permit”</i> (the Waste Analysis Plan), and <i>“Attachment 1 of this permit”</i> (the Hazardous Waste Application Part A) essentially allows the storage in J-Block of any waste material produced in any stage of the demilitarization process. This waste could include agent drained from munitions, spent decontamination fluid, surrogate residues, clean-up residues from agent spills, PAS brine, BRA salts, incinerator ash, incinerator slag, contaminated dunnage, etc. The only restriction to the storage of waste in J-Block would be the upper limit set at 1.2 million gallons. Allowing such a broad definition of materials to be transported, handled, and stored on site greatly increases the risk of release of toxic materials to the environment. I suggest that more stringent and specific criteria be specified in this permit to limit the types and concentration(s) of toxic materials being placed in long-term J-Block storage. For example, in the UMCD RCRA Permit Part B Permit Application (Dated February 2000) it was specified that only 3X waste would be placed in J-Block. A similar designation is needed for this permit.”</p>	<p>The response provided in RTC-3 is also directly pertinent to this comment. With the exception of munitions or bulk items and neat agent, which are specifically excluded, the comment notes correctly that the proposed permitted storage in J-Block could involve storage of “waste material produced in any stage of the demilitarization process.” Although the primary purpose of the J-Block permitted storage is to address the longer-term storage of agent-contaminated wastes that must be thermally treated at a later date, a number of other wastes could require storage over shorter periods up to one year. Placing undue limitations on the types or concentrations of waste allowed to be stored in J-Block could impose arbitrary or unrealistic constraints on UMCDF waste management functions.</p> <p>As an alternative, the Department believes that a wider range of waste storage can be accommodated if the wastes are segregated by appropriate distinctions in contaminant type, process origin, or ultimate disposition and more stringent control and monitoring requirements are imposed on those wastes with higher levels of agent contamination. The proposed segregation requirements are indicated in Permit Condition III.B.9 and the proposed control and monitoring requirements applicable to wastes with higher levels of agent contamination are indicated in Permit Conditions III.B.10, 11, and 12.</p>

**RESPONSE TO COMMENTS**

Related to

**Permit Modification Request UMCDF-00-004-WAST(3)**

Permitted Storage in J-Block

RESPONSE TO COMMENT (RTC) NO.	COMMENT	DEPARTMENT RESPONSE
RTC-5	<p><b>From CTUIR Re: Proposed addition to Module III, page 8 of 16, Permit Condition III.B.7:</b> "The Permittee shall not store more than 21,780 gallons of hazardous waste in each J-Block igloo."</p> <p><b>Comment:</b> "Storage of 21,780 gallons per igloo for 58 igloos equates to a total permitted storage volume of 1.263 million gallons. To put this in perspective, this represents approximately 1.7 times the volume of the agent currently in the K-Block munitions. Another way to look at the magnitude of this amount of storage is to estimate how long the plant would have to run at the rates specified in the RCRA permit design drawings to generate solid and liquid effluents that total 1.263 million gallons. Excluding metal material that is designated for off-site recycle, but including all other major solid and liquid effluents, it is estimated that the plant could run continuously for approximately 11 months before the waste limit for K-block is reached. This upper limit seems well above what would be needed to accommodate for unforeseen problems during operation. What was the basis for determining the amount of permitted storage space that will be needed? Please provide a technical justification for the requested upper limit."</p> <p><i>(Note: There are a number of other similar CTUIR comments about storage capacities proposed for J-Block and the proposed waste inventories. The additional comments of similar topic are not addressed separately.)</i></p>	<p>The single igloo maximum storage capacity is based on non-stacked storage of 55-gallon drums, with conservative allowance for accessibility. The requested number of permitted igloos is based on rough estimation of waste types, quantities, and the time frames over which wastes may require storage.</p> <p>In the case of certain of the waste streams for which J-Block storage is expected, such as the filter carbon, designation of the treatment process to be employed is subject to technology evaluations that are currently in progress. For a number of other secondary wastes, permit modifications to specify treatment processes are anticipated over the next several months. The need for and requested number of storage units is based on current projections of waste management needs, and is intentionally conservative. Utilization of the maximum storage capacity is limited by the waste segregation requirements imposed by the proposed Permit Conditions and other waste compatibility requirements in applicable regulations.</p>

**RESPONSE TO COMMENTS**

Related to

**Permit Modification Request UMCDF-00-004-WAST(3)**

Permitted Storage in J-Block

RESPONSE TO COMMENT (RTC) NO.	COMMENT	DEPARTMENT RESPONSE
RTC-6	<p><b>From CTUIR Re: Permit Application Section B-1, Page B-1-1, Line 29, Addition of the Text:</b> ...<i>November 2001</i> for the start date of demilitarization.</p> <p><b>Comment:</b> "The schedule has now officially slipped by 16 Months. Please elaborate on how the proposed change in processing philosophy from immediate treatment of wastes, to storage and later treatment of some material will affect the overall schedule for this project. Also, please specify the estimated schedule impacts and operational procedures that must change if this permit modification is denied and UMCDF has no additional permitted storage."</p>	<p>The text indicating a November 2001 date has been revised to read: "The current schedule for starting the demilitarization of the stockpiled chemical agents, bulk items, and munitions is February 2003, but this date is subject to change."</p> <p>As the CTUIR comment in RTC-1 suggests, this permit modification involves a change in custodial arrangements from what was earlier anticipated: storage capacity for secondary wastes that would have been made available by custody transfer of the wastes back to UMCD will now be operated directly by UMCDF. These proposed changes to the UMCDF HW Permit to provide for permitted storage in J-Block ensure that safe, secure and well-managed storage will be available for all the various wastes generated during operation of the demilitarization processes and process support functions. They also ensure that storage will be available for such time as is necessary to schedule and complete any additional thermal or other processing of wastes and proper disposition of residues.</p> <p>Availability of permitted storage does not dictate processing schedules, but does allow flexibility with regard to the determination of appropriate schedules in accordance with other requirements of the HW Permit.</p>
RTC-7	<p><b>From CTUIR Re: Permit Application Section B-2, Page B-2-1, Line 9, Addition of the Text:</b> ...<i>treatment units are... while</i></p>	<p>Being on the same site of, or on a site contiguous to, the location of existing facilities is not a requirement for inclusion of additional</p>

**RESPONSE TO COMMENTS**  
 Related to  
**Permit Modification Request UMCDF-00-004-WAST(3)**  
 Permitted Storage in J-Block

RESPONSE TO COMMENT (RTC) NO.	COMMENT	DEPARTMENT RESPONSE
	<p><i>additional storage is located directly south of K-Block in J-Block.</i></p> <p><b>Comment:</b> "What is the legal distinction that allows including the new area (separated by a substantial distance from the existing permitted facility) to be permitted as a storage facility with a Class III modification rather than with a separate permit? Please elaborate on which Modification in Appendix I of 40 CFR 270.42 applies to this situation."</p>	<p>functions or facilities within a Permit. The proposed J-Block storage units are located within a short distance of the UMCDF treatment units and directly accessible by useable roads; the UMCDF treatment units and the proposed J-Block storage units are both located on the host facility site of UMCD.</p> <p>With regard to Appendix I of CFR 270.42, the Department considers both classifications F. <i>Containers</i> 1.a. and 3.a. to be applicable.</p>
RTC-8	<p><b>From CTUIR Re: Permit Application Section B-4, Page B-4-1, Line 6, Addition of the Text:</b> <i>...and other demilitarization waste...</i> to the sentence "<i>Process ash, residues, and brine salts, and other demilitarization waste will be transported to an approved off-site hazardous waste treatment, storage, or disposal facility (if they are found to be hazardous) or to storage in J-Block.</i>"</p> <p><b>Comment:</b> "This statement greatly broadens the type of material that could be transported to an off-site hazardous waste TSD. Relaxing this restriction increases the risk of exposure for the public to the hazardous wastes generated at the UMCDF. Prior to this suggested modification....."</p>	<p>The revised text adds the phrase underlined in the comment and also the phrase "...or to storage in J-Block." As revised, the text recognizes that "...demilitarization waste..." other than those wastes indicated previously must be managed during demilitarization operations, and that some of those wastes, especially the secondary wastes that must be further treated thermally, will require storage. Ultimately, all of the wastes, including the residues from thermal treatment of secondary wastes, must be transported to an off-site TSD facility.</p> <p>To qualify for off-site disposition the wastes must be free of agent and meet the requirements specified in other Permit Conditions and/or in the Waste Analysis Plan (WAP). Modification of the HW Permit to add permitted storage in J-Block does not relax any restrictions with regard to off-site waste disposition. Providing storage for secondary wastes that must be afforded further thermal treatment does not determine how that treatment will be done, but</p>

**RESPONSE TO COMMENTS**

Related to

**Permit Modification Request UMCDF-00-004-WAST(3)**

Permitted Storage in J-Block

RESPONSE TO COMMENT (RTC) NO.	COMMENT	DEPARTMENT RESPONSE
		it does facilitate the scheduling and accomplishment of that treatment.
RTC-9	<p><b>From CTUIR Re: Permit Application Section B-4, Page B-4-2, Line 36, Addition of the Paragraph Starting With:</b> <i>Hazardous wastes between J-Block and the UMCDF treatment area should be moved via Greasewood and Badger Roads....</i></p> <p><b>Comment:</b> "Liquid, agent-contaminated waste will be shipped approximately 2.7 miles. How will this proposed operation alter the potential for exposing the public to hazardous waste?"</p>	<p>The liquid, agent-contaminated waste with the greatest potential need for transport and storage is spent decontamination solution (SDS). This waste could need to be stored to the extent the quantity generated exceeds the capacity for in-plant storage in the SDS tanks and the availability of LIC secondary combustion chambers for disposal. As indicated in the WAP such waste must be decontaminated to below 20 parts per billion (ppb) and would be containerized prior to transport.</p> <p>Limited quantities of miscellaneous agent-contaminated liquids, such as spent hydraulic fluids and lubricating oils generated in the MDB, are also likely to require storage. Fluids from maintenance change-outs would normally have only low levels of agent and fluids resulting from spillage would be decontaminated to below 20 ppb. The transport and storage of containerized liquid secondary wastes in J-Block does not pose increased risk to the public or magnified environmental risk.</p>
RTC-10	<p><b>From CTUIR Re: Permit Application Section B-4, Page B-4-16, Table B-4-1, Addition of the Text:</b> <i>and/or</i> in the table entry titled <i>Forklifts and/or Trucks.</i></p> <p><b>Comment:</b> "Does this change imply that the UMCDF will now have up to 142 semi-trucks per day going in and out carrying</p>	<p>The changes in Table B-4-1 indicate an increase of about 2 vehicles per day from the prior estimates of traffic densities at UMCDF, which did not include the proposed use of J-Block as permitted storage. That increase represents the approximate impact of having to transport secondary wastes between J-Block and the</p>

**RESPONSE TO COMMENTS**

Related to

**Permit Modification Request UMCDF-00-004-WAST(3)**

Permitted Storage in J-Block

RESPONSE TO COMMENT (RTC) NO.	COMMENT	DEPARTMENT RESPONSE
	<p>hazardous wastes to the J-Block? Please clarify the implications of this change by separating shipments between K-Block and the UMCDF and between the UMCDF and J-Block. In addition, I suggest the table be modified to explicitly indicate the types of vehicles that are to be used to move the waste in the various stages of the process.”</p>	<p>UMCDF treatment area.</p>
<p>RTC-11</p>	<p><b>From CTUIR Re: Permit Application Section D-1, Page D-1c-6, Line 31, Addition of the Paragraph Starting With:</b> <i>Storage igloos in J-Block have passive ventilation consisting of two vents....</i></p> <p><b>Comment:</b> “In the opinion of this reviewer, having open vents on igloos that are permitted to store demilitarization waste materials is not consistent with the mandate of the ODEQ to protect human health and the environment. Because these buildings will hold the same material being handled in the UMCDF, it would seem reasonable that the same level of precaution would be required on effluent air from both the MDB and the igloos. That is, effluent air would be collected, and treated to remove any potential agent prior to releasing to the atmosphere.”</p>	<p>The materials being handled within the MDB and the J-Block igloos are very different. Munitions and bulk items containing chemical agent are handled within the MDB, while the J-Block igloos will handle only containerized process wastes, most containing very limited concentrations of agent contamination. Wastes with higher levels of agent contamination (“Higher Level Waste,” as defined in Permit Module I) must be managed under the substantially more stringent conditions and requirements indicated in Permit Conditions III.B.10, 11, and 12.</p>
<p>RTC-12</p>	<p><b>From CTUIR Re: Permit Application Section D-3, Page D-3a-2, Line 2, Addition of the Text:</b> <i>Potentially agent-contaminated secondary waste may be stored in J-Block prior to further treatment. Waste will typically be stored in J-Block for greater</i></p>	<p>The need for longer-term storage is not a new development. As pointed out in the response to RTC-1, the original assumption was that any requirement for storage beyond 90 days would be met by transfer of the wastes back to UMCD custody for storage in J-Block or K-Block igloos. There has, however, been one design</p>

**RESPONSE TO COMMENTS**  
 Related to  
**Permit Modification Request UMCDF-00-004-WAST(3)**  
 Permitted Storage in J-Block

RESPONSE TO COMMENT (RTC) NO.	COMMENT	DEPARTMENT RESPONSE
	<p><i>than 90-days.</i></p> <p><b>Comment:</b> “The original design for the UMCDF was capable of processing all feed stocks associated with the agent-containing munitions without long-term storage of partially treated wastes. What has changed in the treatment process that now necessitates storage of partially treated materials? Please clearly and explicitly specify what flaws were found in the original design and why storage of partially treated wastes is the most appropriate option to circumvent these flaws. Also, I strongly suggest that an appendix be added to the permit that provides a detailed list of the types and quantities of waste that are anticipated for storage in J-Block. From this list, I would suggest that a better storage plan be developed and (added to the permit). This plan should divide J-Block into subsections based on the various types of waste that will be stored. These sections could then be managed at the level that is appropriate for the type of waste that is to be received. For example, a set of igloos that were to receive liquid waste that has the potential to give off toxic or carcinogenic vapors could be equipped with a higher level of engineering controls than igloos that would only receive 5X solid waste.”</p>	<p>decision that does affect the treatment of some of the secondary wastes: the decision by the Army not to install the Dunnage incinerator and to provide alternative treatment for the wastes originally to be destroyed in that system.</p> <p>The alternative treatments are expected to involve either the Metal Parts Furnace or the Deactivation Furnace System. Scheduling of those two incinerators for their primary duties in processing munitions components will determine the extent of time when they can be made available for processing of secondary wastes and will also determine the duration of storage in J-Block. Since the Dunnage Incinerator was not designated for processing of liquid wastes, this design decision affects only selected solid waste streams.</p> <p>The storage management requirements, as now proposed in Permit Module III, mandate segregation of wastes in the individual storage units by process origin or destination and by agent type and level of contamination to the extent deemed necessary for safe storage operations. Division of J-Block into management subsections was considered, but would have reduced operational flexibility and was not determined to be necessary.</p>
RTC-13	<p><b>From CTUIR Re: Permit Application Section D-3, Page D-3a-2, Line 24, Addition of the Text:</b> <i>Some of the waste stored in J-Block may contain free liquids, and will be stored in accordance</i></p>	<p>It has always been understood that storage of secondary wastes would be necessary, including liquid wastes. Originally, that storage was to be provided by transfer of the wastes back to UMCDF. An example of such liquid waste is Spent</p>



**RESPONSE TO COMMENTS**

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Permitted Storage in J-Block

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	<p><i>with 40 CFR 264.175.</i></p> <p><b>Comment:</b> "Handling and storing agent-contaminated liquid waste is a radical departure from the initial RCRA permitted design that resulted in only solid wastes with no free liquid. Why has this philosophy shift occurred? Has new data been obtained to show the original supposition of high risk for liquid containing materials was invalid? Please elaborate on the decision process that went into determining this course of action was necessary. In addition, I suggest that at a minimum the igloos be modified to ensure that liquid waste that is spilled on the floor does not result in an environmental release. These modification would include, but not be limited to capping the external drains, creating a raised lip across the floor on the side with the door, sealing the floor with epoxy, and adding vapor collection and treatment devices."</p>	<p>Decontamination Solution (SDS) for which the SDS tanks provide storage until it can be fired into one of the LIC secondary combustion chambers. To the extent that SDS generation exceeds the storage capacity of the SDS tanks or the availability of the LIC secondaries, storage in J-Block may be required. The responses to RTC-1 and RTC-9 are also pertinent to this comment.</p> <p>The second part of the comment addresses secondary spill containment provisions for liquid waste storage. Liquid wastes stored in J-Block will be containerized and will be stored on spill-containment pallets in accordance with 40 CFR 264.175. Any liquid wastes classified as "higher level wastes" will be stored in igloos equipped with drain plugs and the other containment improvements specified in Permit Condition III.B.10.</p>
RTC-14	<p><b>From CTUIR Re: Permit Application Section D-3, Page D-3a-5, Line 25, Addition of the Paragraph Starting With:</b> <i>Selected J-Block igloos will be used for storage of potentially agent-contaminated secondary waste....</i></p> <p><b>Comment 1:</b> "Each igloo has a floor sloping from the center to one foot-gutters on each side of the structure and these gutters "drain to the exterior of the building" (Section D-3, Page #-3a-6, Line 25). Are these gutters connected to a collection sump? If a major spill (one with a volume above the 10% capacity of the containment pallet) occurs will agent-contaminated waste drain to</p>	<p>The proposed modifications to the HW Permit to incorporate permitted storage now contain provisions that were not in the original proposal to which these comments were addressed and some of the comments are addressed by earlier responses. Brief responses are provided as follows:</p> <p>All containerized liquids will be stored on spill pallets. Spill pallet capacity must be at a <i>minimum</i> equal to the volume of the largest single container stored on that pallet or 10% of total container volume stored on that pallet, whichever is greater. In practice, the capacities are usually somewhat larger: for example, the pallets used by UMCDF for standard drums have a 66 gallon capacity, or</p>

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	the exterior of the building? In the event of a spill, how will it be detected and remedied?"	about 20% more than a standard 55-gallon drum. Drain plugs are required for those igloos designated for storage of "higher level waste." Weekly entry for inspection of spill pallets and containers and immediate corrective action in the event of a spill are requirements for all igloos.
	<b>Comment 2:</b> "Each igloo has two vents open to the atmosphere. If there was a spill of agent within the igloo, what will prevent agent vapors from being released to the external environment?"	Operation with closed vents and monitoring of interior air on a weekly basis or prior to any entry is required for igloos designated for storage of "higher level waste." In the event monitoring indicates agent presence in the interior air, the air is exhausted through a mobile, powered carbon filter prior to opening. Operation with open vents and with no requirement for interior airspace monitoring is limited to those igloos storing wastes classified as "lower level wastes." This is directly comparable to the existing practices for handling and storage of the very similar types of demilitarization wastes stored in the interim status J-Block storage igloos operated by UMCD.
	<b>Comment 3:</b> "The concrete floors in the MDB and CHB are coated with an epoxy sealant to enable easy surface decontamination in case of a spill. What is the justification for not coating the floors of the J-Block igloos with the same epoxy? Please clarify why an epoxy coating is not needed, and how decontamination of the J-Block floor will be conducted in the case of a spill of agent-contaminated liquid."	In the MDB and CHB there is a potential for spillage of neat agent followed by copious use of decontamination solution, whereas the liquids stored in J-Block will be for the most part only the minimally contaminated SDS. The situations are not comparable.
	<b>Comment 4:</b> "In the opinion of this reviewer, it would seem that the risk of environmental contamination during handling and storing this waste would be greatly reduced if UMCDF built a	The proposed modifications distinguish between wastes to be stored in J-Block by level of agent contamination to allow imposition of more stringent management requirements, including

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	<p>building specifically designed for this purpose so that the appropriate engineering controls are incorporated. Has this option been considered? If so, why was it rejected? If cost was the reason to not build a new facility, please provide specific detail on the estimated size and cost of the facility that was used in the decision process. In addition, please provide the projected costs of retrofitting the 58 igloos, including the purchase of the proposed containment pallets. Finally, what is the estimated remediation cost for cleaning up the contaminated soil that would result from one shipment of potentially agent-contaminated liquid being released to the environment? Does including the cost of a single clean up shift the economics in favor of building a new facility?"</p>	<p>specified improvements, to the igloos designated for storage of "higher level waste." The management requirements proposed are considered by the Department to be appropriate and are more extensive than those to which the comment was addressed. As indicated in Comment 3. directly above, the storage of secondary wastes in J-Block does not pose a risk of environmental contamination that is comparable to the risks addressed within the engineering controlled areas of UMCDF.</p>
<p>RTC-15</p>	<p><b>From CTUIR Re: Permit Application Section D-3, Page D-3b-5, Line 23 and 12, Addition of the Text:</b> <i>Containers used for on-sight(sic) waste storage will meet the definition of container in 40 CFR 260.10.</i></p> <p><b>Comment:</b> "40 CFR 260.10 defines a container as "any portable device in which a material is stored, transported, treated, disposed of, or otherwise handled." This is a very broad definition, and could include many devices that would not be safe for storage of an agent-contaminated liquid or solid. For example, this reviewer would not consider polyethylene bags sealed with tape (Page D-10-3 in Section D-10) an appropriate method for storing agent-contaminated solids since they can be accidentally punctured. The bags would be sufficient, however, if they were subsequently</p>	<p>As indicated on page D-3a-6, line10, the primary containers for liquid wastes are 30-, 55-, 85-, and 110-gallon drums.</p> <p>Most of the agent-contaminated wastes originate in the MDB, where the use of polyethylene bags is for the initial containment of waste items (solids such as used protective apparel, maintenance items, etc.). Analysis of headspace air within the bagged waste is part of the procedure used by the Army for waste classification as either 3X or 1X ("lower level waste" or "higher level waste" as defined by the proposed changes in Permit Module I).</p> <p>The bagged wastes are then placed in drums and the drums (or other appropriate containers) are closed. The containerized wastes are then again draped or enclosed for a second headspace analysis--</p>

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	<p>placed in drums prior to handling. Please provide a list of potential wastes that will be stored, the estimated volumes that will be stored, the specific storage container that will be used for each, and a justification for the type of container selected.”</p>	<p>the containerized wastes (even those that have “higher level wastes” inside) must meet 3X criteria to be removed from the MDB. Once in storage, the drummed wastes containing “higher level wastes” are subject to on-going requirements for weekly monitoring and inspection that are comparable to those applied to K-Block munitions storage.</p>
<p>RTC-16</p>	<p><b>From CTUIR Re: Permit Application Section D-3, Page D-3b-6, Line 3 and 12, Addition of the Text:</b> ...<i>UMCDF treatment area...</i> in the sentence: “<i>All floors surfaces in the UMCDF treatment area container storage areas will be coated with a commercial epoxy sealant to ensure the integrity of the base.</i>”</p> <p><b>Comment:</b> “Addition of this text diminishes the scope of this statement from stating that the floors in all storage areas will be coated, to all but the J-Block floors will be coated. The potential material handled in J-Block and the other storage areas are identical. What is the justification for not coating the J-Block floors? I would suggest that this sentence be changed to indicate that the floors of all container storage areas will be coated with a commercial epoxy sealant.”</p>	<p>As indicated by several responses above, the materials handled in the MDB are very different from those to be stored in J-Block. Potential spillage of neat agent (in the engineering controlled areas of the MDB) represents a far greater contamination hazard than potential spillage of SDS with an agent-contamination level less than 20 ppb (see the RTC-9 response above). Use of spill pallets as secondary containment for the containerized liquid wastes to be stored in J-Block is considered adequate and appropriate.</p>
<p>RTC-17</p>	<p><b>From CTUIR Re: Permit Application, General Comment on Section D-10:</b> “As stated on Page D-10-2:</p> <p><i>“Containers with a design capacity of greater than 0.46 m<sup>3</sup> (121.5 gallons) in volume that are in light-</i></p>	<p>Section D-10 discusses the air emission requirements of 40 CFR 264 Subpart CC as they apply to the proposed J-Block storage. Although originally included in this PMR, this section has been removed from consideration here and is being addressed along with other air emission requirements of 40 CFR 264 Subpart BB as part</p>

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	<p><i>material service shall control air pollutant emissions in accordance with container Level 2 Standards.... Light materials are defined as wastes in which the vapor pressure of one or more of the components is greater than 0.3 kilopascals (kPa) at 20 °C, the total concentration of such components is ≥20 percent by weight, and the material is a liquid at operating conditions."</i></p> <p>Although the definition of light materials excludes wastes containing GB, VX, and HD from falling under a Level 2 Standard, many of the other permitted materials (see Section XIV of the Part A Permit Application which can be found as Attachment 1 of the 1997 RCRA Permit) would fit the definition of a light material. For example, the surrogates to be used in the trial burns are monochlorobenzene, trichloroethane, and perchloroethylene. All three of these compounds have a vapor pressure above 0.3 kPa at 20 °C. Hence, they would qualify for Level 2 Standards if stored at ≥20 percent by weight in a container with a design capacity of greater than 0.46 m<sup>3</sup>. If only Level 1 storage devices are to be used in the J-Block, text needs to be added to explicitly specify the precautions that will be taken to ensure that no container violates the Level 1 constraints. Additionally, if volatile organics are to be stored in J-Block are..."</p> <p><i>[Note: end of text - comment was received incomplete]</i></p>	<p>of Permit Modification Request UMCDF-00-022-WAST(3) "Air Emission Standards for Equipment, Containers and Tanks," currently under joint review by the Department and EPA.</p>

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RTC-18	<p><b>From CTUIR Re: Permit Application Section F-1, Page F-1-3, Line 11, Addition of the Text:</b> <i>The UMCD fence, consisting of a five-foot-tall chain link fence with barbed wire on top, serves as a barrier to unauthorized entry to the J-Block storage area.</i></p> <p><b>Comment:</b> "Is a single, five-foot-tall fence an adequate security barrier given that under this permit modification there is the potential to store in J-Block neat agent, or very concentrated solutions containing agent?"</p>	<p>As indicated in the response to RTC-3 above, neat agent cannot and will not be stored in J-Block. The security measures provided meet the requirements mandated by the Army, which with regard to operations at both UMCD and UMCDF are much more extensive than the regulatory requirements for security applicable under RCRA.</p>
RTC-19	<p><b>From CTUIR Re: Permit Application Section F-4, Page F-4-4, Line 5, Addition of the Text:</b> <i>J-Block igloos are not equipped with electrical power and, consequently, are not controlled by the Automatic Control System.</i></p> <p><b>Comment:</b> "The lack of electrical power also indicates the igloos have no temperature control. How much will the temperatures in the igloo fluctuate during a year, and how will this fluctuation have the potential to cause a release of hazardous wastes. For example, is there a potential for aqueous wastes to freeze and cause containers to bulge and rupture? Could elevated temperatures cause a pressurization of waste containers such as the polyethylene bags mentioned in on Page D-10-3 in Section D-10? Such pressurization would result in the off-gassing of potentially toxic vapors. Please provide technical justification that temperature extremes will not cause a release of hazardous materials to the</p>	<p>Whether or not there is electrical power to the igloos has no bearing on their proposed operation, since none of the igloos is designed or equipped for heating or cooling. They are, however, insulated by a two-foot thick earth cover and maintain interior temperatures that are substantially more moderate than the exterior swings occurring on a diurnal or seasonal basis. Freezing of aqueous wastes or pressurization of containers due to elevated temperatures have not been problems. Upper range temperatures in the igloos are commensurate with or lower than the 70° F equilibrium temperature used during classification of the wastes. Consequently, storage conditions within the igloos are very unlikely to promote off-gassing of vapors.</p>

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	environment. Alternatively, please indicate how the temperature in the 58 igloos will be controlled to mitigate potential hazardous waste releases.”	
RTC-20	<p><b>From CTUIR Re: Permit Application Section F-5, Page F-5b-1, Line 9, Addition of the Text: <i>Incompatible secondary waste will be stored in separate J-Block igloos.</i></b></p> <p><b>Comment:</b> “This explicit statement of how incompatible wastes will be stored needs to be added to Section D-3, Page D-3a-7; and Section D-3, Page D-3a-14. This change will help clarify statements made on how incompatible waste will be handled.”</p>	The quoted text is about storage of incompatible wastes in J-Block igloos, but the contexts of the sections referenced concern areas within the CHB and MDB. The revised discussion of waste segregation requirements on page D-3a-9 appears to be adequate.
RTC-21	<b>From CTUIR Re: All Comments Pertaining to Permit Application Section G</b>	Proposed changes to Section G, Contingency Plan, as originally included in this PMR, have been superceded. The revision of the Contingency Plan was accomplished through PMR UMCDF-01-010-CONT (2) “Revision of Section G, Contingency Plan,” approved by the Department on December 31, 2001.
RTC-22	<p><b>From CTUIR Re: Permit Application Section I-1, Page I-1c-1, Lines 19-20, Addition of the Text: <i>...or transportation of process-related hazardous waste to J-Block.</i></b></p> <p><b>Comment:</b> “This is a correct statement. The most likely cause of an unplanned release of hazardous waste to UMCDF soils will be during handling and transporting of wastes. This fact is why permitting the storage of up to 1.263 millions gallons of hazardous</p>	Although handling and transportation activities can represent opportunities for increased risks of unplanned releases, those risks can also be effectively controlled by employment of well-trained, experienced personnel using safe and effective standardized procedures under qualified supervision. The comment was made with underlying incorrect assumptions that neat agent could be stored in J-Block (see RTC-3) and that the maximum storage capacity of all 58 igloos proposed for permitting would be fully

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	waste in J-Block will dramatically increase the likelihood of an unplanned release of potentially lethal material to the environment.”	utilized (see RTC-5).
RTC-23	<p><b>From CTUIR Re: Permit Application Section I-1, Page I-1d-3, Entire J-Block Closure Activities Section:</b></p> <p>This comment provides extensive critique of closure activities as they would apply to J-Block. The major issues identified include the following:</p> <ul style="list-style-type: none"> <li>• that air monitoring alone may not provide an adequate basis for decontamination of the igloos and would not result in detection of other contaminants such as metals,</li> <li>• that the procedures for conduct of agent decontamination activities are inadequately detailed,</li> <li>• that provisions for the use of an independent engineer to certify appropriate closure are inadequately developed,</li> <li>• that using operational records to identify worst-case igloos as the primary target for verifying lack of contamination may be acceptable, but may not be conclusive,</li> <li>• that more extensive random and systematic sampling activities may be required,</li> <li>• that sampling for a broader range of possible metal and organic contaminants should also be done in soils and loading areas where spills may have occurred, and</li> </ul>	<p>The revised text of proposed changes to Section I, Closure Plan incorporate the J-Block igloos and the previously approved permitted storage in the MDB into the closure process and address in limited detail some of the weaknesses identified in the CTUIR comments. The Department agrees that substantial additional revision to provide the necessary and adequate level of detail needed during closure will be required. Such revision, however, can be more accurately and effectively done nearer the time of commencement of closure activities, when the magnitude of existing problems and the scope of required activities can be better assessed.</p> <p>Permit Condition II.J.1 requires the Permittee to submit an amended Closure Plan to the Department for review and approval at least 180 days prior to initiation of closure activities. Because amendment of the Closure Plan will involve substantial changes to the Permit documents, there will be opportunity for public comment at the time those changes are developed.</p>



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	<ul style="list-style-type: none"> <li>that the methods, procedures and standards used in certifying closure should be consistent with longer-term use of UMCD and Local Reuse Authority strategies.</li> </ul>	
RTC-24	<p><b>From Comments provided by Morrow County:</b></p> <p><b>Comment 1.</b> "A request to expand the area for temporary storage of secondary waste is not necessarily objectionable. However, it warrants mentioning that such a significant permit modification is dubious given the Army's claim that the incinerator design was based on "proven technology." According to Dr. Skeen's calculations, the design flow should result in a maximum 15,600,000 pounds of solid, secondary waste, excluding 5x metal waste (approximately 900,000 gallons assuming the density of table salt). This calculation assumes all systems operate at design capacity merited by the various types of munitions, and that the dunnage incinerator operates continually at its design capacity. Hence, it appears that the requested storage capacity of 1.3 million gallons is about equivalent to all the projected waste that will be produced. It is not clear why such a large capacity is needed since the current plans of the Army are to dispose of this material off-site. Is there new information about the incinerator technology whereby the Army believes the system will not operate according to design and so new types of secondary waste will be generated?"</p>	<p>The need for storage of secondary wastes is not a new development, as is indicated in the response to RTC-1, above. Instead of the secondary wastes being transferred back to UMCD for storage, the Army has decided that UMCDF should retain full responsibility by operating the required storage facilities. The request for permitted storage in J-Block is the means by which the storage capacity necessary to exercise that responsibility is proposed for addition to the UMCDF HW Permit.</p> <p>The need for and requested number of storage units is based on current projections of waste management needs, but does not involve new types of secondary wastes. Because of requirements for segregation of stored wastes by type and level of agent contamination, process source, and other factors that preclude full use of available capacity, the total capacity proposed must be and is conservative. Because the agent-contaminated wastes must be given further thermal treatment, the storage times are also dependent on when thermal treatment can be scheduled and will vary by type of waste and the thermal treatment to be provided. The proposed storage also provides needed flexibility for process operations by allowing storage of wastes destined for off-site disposition if transport cannot be effected within the 90-day limit for other storage areas.</p>

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RTC-25	<p><b>From Comments provided by Morrow County:</b></p> <p><b>Comment 2.</b> “Given the above finding that 15,600,000 pounds (approximately 900,000 gallons assuming the density of table salt) of secondary solid waste is to be shipped off-site for disposal, why is there a need for 58 additional igloos? The current UMCDF storage permit allows 14 igloos. Each igloo is proposed to permit 21,780 gallons per igloo. Is it because the Army does not intend to construct the dunnage incinerator and hence store waste designed to be eliminated in the dunnage incinerator? Is so, that should be stated in this permit so the public and your agency are able to make a holistic and comprehensive evaluation of the process. Such permit modifications administered in a piecemeal manner are misleading and incomplete, and, I would contend, are inconsistent with RCRA guidelines.”</p>	<p>The previous response is directly applicable to the part of this comment inquiring about the need for the proposed permitting of 58 igloos. Please note that the 14 J-Block igloos currently used by UMCD under interim status permitting will not be used by UMCDF and are not involved in any way in this permit modification proposal. The Army has indicated that they intend to submit permit modification requests to substitute alternative thermal treatments for the wastes originally intended for processing through the Dunnage Incinerator. Although those PMRs have not yet been submitted, it is the Department’s understanding that the proposed J-Block storage includes accommodation for any resulting changes in storage requirements.</p>
RTC-26	<p><b>From Comments provided by Morrow County:</b></p> <p><b>Comment 3.</b> “At the April 4, 2000, public meeting I asked whether the existing igloos or a new building with modern design for hazardous waste would be the optimum and safest option. A spokesperson from the Army responded by stating that construction of a new, separate facility would be “cost prohibitive.” The Environmental Quality Commission has repeatedly stated that safety, not cost is the preeminent factor. Why should secondary waste storage be an exception to that position? Has the</p>	<p>The review of the proposed use of J-Block igloos for permitted storage of process secondary wastes involved substantive consideration of the nature of the wastes and the adequacy and appropriateness of the proposed facilities and facility operations. Cost was not a factor in the Department’s evaluation. The proposed facilities and conditions of operation, which include specified improvements and more stringent operational and monitoring requirements for those igloos designated for storage of wastes with higher levels of agent contamination, provide the basis for safe and environmentally protective storage. The response to</p>

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	applicant(s) considered the cost to clean up a spill at an igloo or en route to an igloo and compared that cost to construction of a properly designed hazardous waste storage facility?"	RTC-22 is also pertinent to this comment.
RTC-27	<p><b>From Comments provided by Morrow County:</b></p> <p><b>Comment 4.</b> "The current storage permit allows 90-day storage. The proposed permit does not limit the duration. This is very disconcerting. One could surmise that the Army is not certain of the final fate of this waste, or, that the Army could request perpetual extensions to the storage permit and hence the community would have a legacy of hazardous waste similar to Hanford. Could this be clarified in the permit?"</p>	<p>As was noted in the response to RTC-24, the stored agent-contaminated secondary wastes must be given further thermal treatment using the installed incinerator systems, whose primary assignment is the processing of the munition components and liquid agent. Accordingly, the storage times are dependent on when thermal treatment can be scheduled and will vary by type of waste and the thermal treatment to be provided. For some wastes (such as filter carbon) thermal treatment may not be possible until all munitions processing has been completed and the closure process is initiated.</p> <p>It should be noted that, after processing has been completed, the facilities must be closed in accordance with an approved Closure Plan. Removal of all wastes is one of many legally enforceable requirements of the RCRA closure process for all solid waste management units, including the storage units. In addition, processing of all stored agent-contaminated wastes is a specific requirement of Permit Condition II.B.3.</p>
RTC-28	<p><b>From Comments provided by Morrow County:</b></p> <p><b>Comment 5.</b> "Permit Module III, Page 1 of 16, Paragraph 2, describes wastes to be permitted for storage in J-Block as those in</p>	<p>The PMR does not intend or seek authorization for the storage of neat agent in the proposed J-Block permitted storage. The Army has also indicated that chemical surety requirements applicable to both UMCD and UMCDF would not allow the storage of neat</p>

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	<p>Section XIV of the Part A Permit Application. This section warrants modification since, as presented, it could be interpreted to allow any material to be stored in J-Block, including neat GB, VX and HD. A toxicity limit should be set and defined in the permit.”</p>	<p>agent in J-Block. Specific changes have also been incorporated in the proposed Permit language issued by the Department to ensure clarity of intent:</p> <ol style="list-style-type: none"> <li>(1) the second sentence referring to Section XIV of the Part A Permit Application has been removed, and</li> <li>(2) Permit Condition III.B.6 has been revised to include the specific requirement that “Munitions or bulk items that have not been treated in the Metal Parts Furnace or Deactivation Furnace System or neat agent shall not be stored in the permitted J-Block igloos.”</li> </ol> <p>The response to RTC-4 provides information pertinent to the suggestion in the comment about setting toxicity limits.</p>
<p>RTC-29</p>	<p><b>From Comments provided by Morrow County:</b></p> <p><b>Comment 6.</b> “ Module III, Page 11 of 16, Section III.F.c. excludes reference to J-Block. This implies the intention of J-Block is long-term storage. The duration for storage of secondary waste in J-Block should be defined here and elsewhere in the permit to guarantee J-Block storage is for a temporary and discreet period of time and not for an unlimited duration. The county is concerned about the possibility for continual requests for extensions that are implied by the type of storage and in the closure plan.”</p>	<p>The reference is apparently to Module III of the HW Permit, but the specific location “Section III.F.c” on page 11 of 16 is not identifiable. Storage for any period longer than 90 days requires that the storage occur in a permitted unit or area. The proposed permitted storage in J-Block would be used for storage of wastes for periods longer than 90 days.</p> <p>With regard to storage duration, the wastes that could be stored in J-Block fall into two groups. Storage time for non-agent-contaminated hazardous wastes generated from activities of UMCDF that do not involve agent operations (referred to as “non-</p>

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		<p>process” wastes) cannot exceed one year. If any residues of thermal processing require storage in J-Block to facilitate arrangements for disposal, the one-year limit would also apply to them. There is no defined time limit for storage applicable to the agent-contaminated wastes that require further thermal treatment. The lack of a storage time limit is an advantage since it allows the necessary flexibility to schedule and complete thermal treatment. The response to RTC-27 is also pertinent to this comment.</p>
RTC-30	<p><b>From Comments provided by Morrow County:</b></p> <p><b>Comment 7.</b> “Section B-1 describes a November 2001 start date for demilitarization. How will this modified storage permit effect the overall schedule? That is, will this proposal to store waste prolong the schedule?”</p>	<p>The response provided to RTC-6 addresses the concerns raised in this comment.</p>
RTC-31	<p><b>From Comments provided by Morrow County:</b></p> <p><b>Comment 8.</b> “Section B-4, Page B-4-1, Line 6 adds the text “and other demilitarization waste” that may be transported to an approved off-site hazardous waste facility. The toxicity and accurate characterization of the waste should be clarified to insure off-site shipment of contaminated waste does not occur. Also, will the on and off- post emergency response plans address concerns of shipment of on-post and off-post waste? Will funding be provided for modification to the plans and for increasing emergency</p>	<p>The revised text adds the phrase quoted in the comment and also the phrase “...or to storage in J-Block.” As revised, the text recognizes that “...demilitarization waste...” other than those wastes indicated previously must be managed during demilitarization operations, and that some of those wastes, especially the secondary wastes that must be further treated thermally, will or may require storage.</p> <p>Ultimately, all of the wastes, including the residues from thermal treatment of secondary wastes, must be transported to an off-site TSD facility. To qualify for off-site disposition the wastes must be</p>

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	response program capacity?"	free of agent and meet the requirements specified in other Permit Conditions and/or in the Waste Analysis Plan. Modification of the HW Permit to add permitted storage in J-Block does not relax any restrictions with regard to off-site waste disposition.
RTC-32	<p><b>From Comments provided by Morrow County:</b></p> <p><b>Comment 9.</b> "Section D-1 includes addition to J-Block storage igloo ventilation, which is essentially two open vents. Is this adequate given the nature of the waste to be stored? Again, wouldn't a modern hazardous waste storage facility be superior to the J-Block igloos and better protect human health and the environment?"</p>	This comment is similar to Morrow County Comment 3, addressed in RTC-26. Also, as indicated in the response to RTC-14, operation with open vents is considered appropriate for many of the secondary wastes, but is not considered adequate for the "higher level wastes," to which the specific additional requirements of Permit Conditions III.B.10, 11 and 12 apply.
RTC-33	<p><b>From Comments provided by Morrow County:</b></p> <p><b>Comment 10.</b> " In Section D-3, delete "but are not limited to" the list of waste that will be stored in J-Block."</p>	The quoted phrase correctly acknowledges that the indicated wastes do not represent a complete listing of all of the containerized wastes to be stored at UMCDF. The existing wording will be retained.
RTC-34	<p><b>From Comments provided by Morrow County:</b></p> <p><b>Comment 11.</b> "Section D-3, Page D-3a-2, Line 2 allows waste to be stored for greater than 90 days. Please clarify the time limit and explain how the incineration process has changed to warrant the extended storage period."</p>	This comment is similar to a number of others addressed previously. The responses to RTC-1, RTC-6, RTC -12, RTC-27, and RTC-29 all contain pertinent information responsive to the comment.

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RTC-35	<p><b>From Comments provided by Morrow County:</b></p> <p><b>Comment 12.</b> "Section D-3, Page D-3a-2, Line 24 changes the existing permit to allow storage of liquid waste. The original RCRA design created only solid waste. What has changed in the process that will generate liquid waste? Is the J-Block facility appropriate for liquid waste which has the highest risk potential for an accidental spill? Does this change require the RCRA permit be reopened?"</p>	<p>The expected wastes from process operations have always included both liquids and solids. Please refer to RTC-13, which provides a response to a similar comment made by CTUIR.</p>
RTC-36	<p><b>From Comments provided by Morrow County:</b></p> <p><b>Comment 13.</b> "Numerous other concerns are raised in this section about the design capability and appropriateness of the J-Block facilities. Secondary containment, drainage, ventilation and temperature control are examples. The DEQ and EQC should seriously evaluate the Army's proposal and consider requiring a separate and new facility."</p>	<p>The proposed modifications are more extensive than in the original PMR, to which the comment was addressed. The issues associated with storage of secondary wastes, especially those with higher levels of agent contamination, have been extensively reviewed. DEQ considers permitted storage in J-Block to be acceptable and appropriate under the control, containment, monitoring, inspection and other measures contained in the proposed Permit Conditions and associated modifications.</p>
RTC-37	<p><b>From Comments provided by Morrow County:</b></p> <p><b>Comment 14.</b> "Section G describes the implementation of the plan. It includes a modification to allow off-facility shipment of waste for processing. This is a significant departure from the original permit and warrants clarification. Please describe specifically the waste, volume and toxicity level of waste to be</p>	<p>As indicated in the response to RTC-8, modification of the HW Permit to add permitted storage in J-Block does not add any allowances for "off-facility shipment of waste for processing" or relax any restrictions with regard to off-site waste disposition. Proposed changes to Section G, Contingency Plan, as originally included in this PMR, have been superceded. The revision of the Contingency Plan was accomplished through PMR UMCDF-01-</p>

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	shipped off-site, and, describe the final destination (location) where the waste will be shipped. Also, will the emergency response plan and program be modified commensurate with this waste disposal plan? Are local emergency responders aware of this change?"	010-CONT(2) "Revision of Section G, Contingency Plan," approved by the Department on December 31, 2001.
RTC-38	<p><b>From Comments provided by Morrow County:</b></p> <p><b>Comment 15.</b> "The Closure Plan described in Section I warrants clarification in several areas. What specifically is the "clean-closure target level" mentioned on Page I-1.-1? Who will set the standard and who will be responsible for hiring a professional engineer to evaluate and determine clean closure compliance? Will the Local Reuse Authority be a vested partner in the process of certification for closure? Page I-1a-a4, paragraphs 2 and 3 leave open the possibility for unlimited extensions for complete closure. Is there a way to tighten this so the community has assurance that waste of any level will not be stranded on the Depot for perpetuity?"</p>	<p>The revised text of proposed changes to Section I, Closure Plan incorporate the J-Block igloos and the previously approved permitted storage in the MDB into the closure process and address in limited detail some of the weaknesses referred to here or identified in other comments made by CTUIR. The Department agrees that substantial additional revision of Section I will be required to provide the necessary and adequate level of detail needed during closure. Such revision, however, can be more accurately and effectively done nearer the time of commencement of closure activities when the conditions and concerns to be addressed by the closure process are better understood.</p> <p>Permit Condition II.J.1 requires the Permittee to submit an amended Closure Plan to the Department for review and approval at least 180 days prior to initiation of closure activities. Amendment of the Closure Plan will require modification of the HW Permit and will include opportunities for public comment. Similar comment about closure concerns was made by CTUIR and is addressed in RTC-23.</p>
RTC-39	<p><b>From Comments provided by Morrow County:</b></p>	<p>The Department's Counsel, through consultation with the Oregon Department of Justice, has determined that DEQ does not have</p>



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	<p><b>Final Comment:</b> Finally, Oregon Revised Statute 465.550-555 and Morrow County Ordinance authorizes the County to collect a fee for storage and handling of waste at the Umatilla Chemical Depot. The County requests that you include in this storage permit a condition that requires the federal government to pay fees assessed by the county pursuant to ORS 465.550-555 and Morrow County Ordinance.</p>	<p>authority to require the federal government to pay fees Morrow County or other local entity. Accordingly, the Department cannot comply with this request. The Department will, however, acknowledge a broader duty to comply by revising the Preface to the HW Permit as follows:</p> <p>“The Permittee must comply with all terms and conditions set forth in this Permit and in Attachments 1 through 5. <b>Issuance of this Permit does not relieve the Permittee from the responsibility to</b> <del>The Permittee must</del> comply with all applicable state or local laws and regulations, including OAR 340 Divisions 100-120, <del>and</del> the rules of the Public Utility Commissioner, the Workers’ Compensation Department, State Health Division, and other <b>state</b> agencies having jurisdiction over the Facility.” (HW Permit, Introduction, page vi of ix)</p>
RTC-40	<p><b>From Condit, et al. (5/1/00) Comments:</b> “The information provided in support of the permit modification nowhere demonstrates that [DEQ/EQC] 1) considered the additional risks to human health or the environment from increased storage of hazardous wastes in the J-Block igloos, 2) considered the additional risks to members of the UMCDF work force, 3) considered and discussed how this modification changed the facility from what was originally approved by the DEQ and EQC, or 4) considered the risks associated with disposal of some or all of the secondary wastes planned for storage in J-Block igloos offsite.”</p>	<p>To ensure appropriate management, the wastes to be stored in J-Block will be segregated by a number of criteria, including agent type and level of contamination. More stringent engineering controls and management requirements are applied to igloos storing wastes designated as “higher-level wastes.” For additional information pertinent to the issues raised by this comment, refer to RTC-9, RTC-11, RTC-12, RTC-13 and RTC-22.</p>

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RTC-41	<p><b>From Condit, et al. (5/1/00) Comments:</b> “The permit modification would authorize storage of up to 21,780 gallons of hazardous waste in each of fifty-eight igloos. The total waste permitted for storage in J-Block would be 1,263,240 gallons of hazardous wastes. This is an enormous volume of hazardous and agent-containing waste to keep on hand. Have the risks associated with the use of incineration, in whatever form it ends up taking at UMCDF, considered the storage and accident risks associated with the wastes that will be stored in the J-Block igloos? The record provided by the agencies does not reflect such an analysis. The absence of full consideration of the risks posed by the proposed permit modification violates Oregon law. ORS §466.055.”</p>	<p>Oregon Revised Statutes §466.055 does not apply to this permit modification. Regardless, the Department does not believe that the storage of hazardous wastes in J-Block will pose any significant risks to either human health or the environment. The Permit Modification includes specific requirements for waste segregation, engineering controls on igloos, spill containment systems, waste management practices, monitoring, and inspection schedules, all of which will minimize the possibility of releases.</p> <p>See also RTC-5, RTC-24, and RTC-40.</p>
RTC-42	<p><b>From Condit, et al. (5/1/00) Comments:</b> “The permit modification also fails to comply with Oregon law by failing to adequately protect public health and the environment because the DEQ is not requiring that J-Block igloos be modified to provide adequate spill and containment systems. The record does not clearly reflect or explain what systems will be employed to catch and contain spills. Such containment must include vapors from spilled materials as well as the liquid or solid materials spilled. In addition, the record appears to reflect that very minimal, if any, secondary containment is being required for the J-Block storage area.</p>	<p>The proposed modifications are more extensive than in the original PMR, to which the comment was addressed. The issues associated with storage of secondary wastes, especially those with higher levels of agent contamination, have been extensively reviewed. DEQ considers permitted storage in J-Block to be acceptable and appropriate with the control, containment, monitoring, inspection and other measures contained in the proposed Permit Conditions and associated modifications. The proposed requirements include containment measures specifically addressing both liquid spillage and vapor leakage. For additional information pertinent to the issues raised by this comment, refer to RTC-14, RTC-15, and RTC-16.</p>

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RTC-43	<p><b>From CTUIR 4/05/02 Comments re: Permit Module I, Page 5 of 25; text stating:</b> <i>“Designation of a waste as a ‘higher level waste’ indicates the containerized waste has been partially decontaminated of chemical agent as specifically described in the 31 March 1997 revision of DA PAM 385-61...”</i></p> <p><b>Comment:</b> “DA PAM 385-61 only pertains to “materials which have a solid physical state” (Section 5-1.c of DA PAM 385-61). Hence, it is not clear what constitutes a 1X designation for liquid waste. Will some amount of decontamination solution be mixed with agent contaminated liquid waste before storage? This comment also applies to the definition of Lower Level Waste on Page 6 of 25.”</p> <p><b>Requested Action:</b> “Please clarify the minimum level of decontamination that will be required for agent contaminated liquid wastes before they are stored in J-block.”</p>	<p>The wastes considered most likely to be classified as “higher level wastes” are portions of the waste from several waste types or sources. These include personnel protective equipment (or other equipment items) that can’t be thoroughly decontaminated, carbon from the HVAC system serving engineered areas of the plant, dunnage subjected to spilled liquid agent, and other similar items. These are all solids. No liquid wastes with higher agent levels are anticipated due to requirements specifically applicable to handling of liquids.</p> <p>As indicated in the response to RTC-9 above, liquid wastes are generally either heavily decontaminated solutions from spill clean-up or from decontamination of personnel and equipment, or are spent process fluids (lubricants, coolants, etc.) from normal maintenance of equipment and not subject to direct contact with agent. In any case, the containerized wastes (i.e. the closed drums holding liquid or solid wastes of either “higher” or “lower” agent contamination level) must themselves be classified as “lower level waste” to be removed from engineering controlled areas for storage in J-Block.</p>
RTC-44	<p><b>From CTUIR 4/05/02 Comments re: Permit Module III, Page 10 of 18; Section III.B.12.iii; text stating:</b> <i>“Prior to placing the filter into service (see Item ii below),...”</i></p> <p><b>Comment:</b> “There appears to be an inconsistency in section</p>	<p>The numbering in Permit Condition III.B.12 is erroneous, but no text is missing. The requirements incorrectly indicated as III.B.12.iii through III.B.12.ix will be corrected to read as III.B.12.i through III.B.12.vii.</p>

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	<p>numbering. The referenced section (Item ii) is not found in the provided document. Furthermore, Sections III.B.12.i and III.B.12.ii have been omitted since Page 9 of 18 ends with condition III.B.12 and Page 10 of 18 starts with condition III.B.12.iii.”</p>	
<p>RTC-45</p>	<p><b>From CTUIR 4/05/02 Comments re: Permit Module III, Page 10 of 18; Section III.B.12.ix:</b> Entire Section.</p> <p><b>Comment:</b> “This condition indicates that air monitoring within an igloo will be conducted after a leaking container has been discovered and overpacked to ensure the leak has been contained. It appears that the monitoring will take place while 1000-cfm filter units are operating. The operation of these filters results in the dilution of igloo air with fresh air.”</p> <p><b>Requested Action:</b> “Please provide additional details on how the monitoring described in III.B.12.ix will be conducted and whether dilution resulting from operation of the filter units will reduce the ability to detect agent vapors.”</p>	<p>The operation of the filters ensures that only cleansed air is released from the igloo and that clean air is drawn into the igloo as part of a controlled exchange process. Initial detection of a vapor leak might occur in the course of required monitoring of the interior air space within a closed and sealed igloo. If agent vapor is detected in an igloo, opening of the igloo and entry for identification and overpacking of a leaking container occurs only after the vapor-contaminated interior air has been exhausted through a powered carbon filter to adsorb the agent vapor and preclude release of anything but cleansed air.</p> <p>In the process, clean air is pulled into the igloo through the opened door vent. The door is opened and the igloo is entered only after additional monitoring confirms that the agent vapors have been reduced to levels low enough for safe entry (with appropriate personnel protective equipment). The powered filters would remain connected and may continue to operate while overpacking and any required clean-up activities are completed. After re-closure of the igloo door, the powered filters remain connected and available for operation as needed until further monitoring (as specified in III.B.11.iii) confirms that no agent contamination is</p>

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		present and the vents can be re-closed.
RTC-46	<p><b>From CTUIR 4/05/02 Comments re: Permit Application, Page D-3a-5; Lines 35 through 39; text stating:</b> <i>“All storage igloos have two air vents which remain open to the atmosphere in normal operation. With the exception of igloos designated for storage of wastes classified by the Army as 1X (“higher level waste” as defined in the UMCDF Hazardous Waste Permit), the storage igloos in J-Block will be operated with open vents. J-Block igloos storing 1X waste will be operated with the vents sealed and closed to prevent the possibility of agent migration.”</i></p> <p><b>Comment:</b> “The use of language within this section is awkward. It is suggested that the following language be substituted:</p> <p>“All storage igloos have two air vents. Igloos in J-Block storing “lower level waste” (as defined in the UMCDF Hazardous Waste Permit) will be operated with open vents. J-Block igloos storing “higher level waste” (as defined in the UMCDF Hazardous Waste Permit) will be operated with the vents sealed and closed to prevent the possibility of agent migration.”</p>	<p>The comment has been considered, but the suggested change will not be made. Comment on this text was also received from UMCDF (UMCDF, 4/09/02, Comment 6) who suggested even simpler textual wording. For reasons indicated in the response to RTC-54 below, no change to this part of the proposed modifications will be made.</p>
RTC-47	<p><b>From CTUIR 4/05/02 Comments re: Permit Application, Page D-3a-7; Lines 1 through 3; text stating:</b> <i>“All containers containing free liquids will be stored on spill pallets capable of</i></p>	<p>As the comment suggests, the phrase “container volume” does mean the total volume of all containers stored on the pallet. This is a <i>minimum</i> requirement for secondary containment established by</p>

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	<p><i>containing 10 percent (10%) of the container volume, or the volume of the largest container, which ever is greater."</i></p> <p><b>Comment:</b> " This language is confusing to this reviewer. Does the Department mean "...<i>stored on spill pallets capable of containing 10 percent (10%) of the total volume of containers stored on the pallet, or the volume of the largest container, which ever is greater?</i>"</p> <p><b>Requested Action:</b> "Please clarify what is meant by "container volume."</p>	<p>40 CFR 264.175(3). In practice, the capacities of storage pallets utilized are usually somewhat larger than either the volume of the largest single container or 10% of the total container volume stored on the pallet. For example, the pallets currently in use by UMCD accommodate four standard drums and have a 66-gallon capacity. That is about 20% more than a standard 55-gallon drum and about 30% of the total volume of four drums.</p>
RTC-48	<p><b>From CTUIR 4/05/02 Comments re: Permit Application, Page F-5a-5; Lines 30 through 35 text stating:</b> "<i>In addition, two igloo design features keep air in the igloos as cool as possible during the warm, summer months. Two feet of fill covering each igloo insulates them from warm ambient temperatures; and for all igloos not containing 1X waste, the different levels of the two ventilation stacks allows for air exchange.</i>"</p> <p><b>Comment:</b> "Has the Department considered how the closing of the 1X igloos to air exchange will affect the temperature within the igloos? It may be of benefit to conduct a study during the coming summer to determine the maximum temperature that can be expected within a closed igloo."</p> <p><b>Requested Action:</b> "Please clarify the expected effects that</p>	<p>As has been noted, the igloos are designed for operation with open vents allowing slow ventilation and air exchange. It is recognized by the Army and the Department that operation of the igloos with closed vents could cause detrimental changes in interior temperatures or humidity levels. UMCD has been monitoring and comparing the interior conditions in igloos operated with both open and closed vents since about June 2001. That on-going monitoring activity is expected to provide base-line information from which it will be possible to better understand and identify any significant effects.</p> <p>The Department has not yet received a formal report of the monitoring comparisons, but informal feed-back indicates that the differences noted to date do not suggest that operation with closed vents at UMCD is problematic. It is important to note that the J-</p>

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	reduced air flow will have on the interior temperature of closed igloos.”	Block igloos that will be operated with closed vents will also be subject to weekly entry for inspection and any substantive deterioration in storage conditions will be observable. If closed-vent operation does cause problems, then the problems will have to be addressed by appropriate changes.
RTC-49	<p><b>From UMCDF 4/09/02 Comments Re: Permit Condition III.B.10</b></p> <p><b>Comment 1:</b> “There appears to be a numbering problem with the items listed under Permit Condition III.B.10 (starts with “iii” rather than “i”).”</p>	The numbering in Permit Condition III.B.10 is erroneous, but no text is missing. The requirements incorrectly indicated as III.B.10.iii through III.B.10.viii will be corrected to read as III.B.10.i through III.B.10.vi.
RTC-50	<p><b>From UMCDF 4/09/02 Comments Re: Permit Condition III.B.10.viii [sic] (Permit Condition III.B.10.vi when corrected)</b></p> <p><b>Comment 2:</b> “Regarding the following proposed text of III.B.10.vi:</p> <p>“A sampling port will be installed in the rear stack to allow air monitoring within the rear stack immediately downstream of the rear vent closure panel.”</p> <p>The rear stack design already makes it possible to conduct air monitoring immediately downstream of the rear vent closure panel; thus, the addition of another sampling port is unnecessary. Therefore, we request this igloo modification requirement be</p>	To ascertain whether or not representative sampling of the rear stack could be conducted without installing a sampling port as required by the quoted text, examination of the rear stack of a J-Block igloo was done jointly by representatives of the Department and Permittees. Insertion of a sampling tube up under the top cap of the galvanized ventilator housing, as proposed by Permittees, would result in sampling at the point most distant from the vent closure plate and at a point significantly affected by air drafts. Such sampling would not be representative. By comparison, installing a simple port near the base of the galvanized ventilator will allow insertion of the sampling tube to a point directly above and immediately downstream of the closed vent, ensuring that a representative sample is taken.

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	deleted.”	Based on examination of the stack structures the Department considers the installation of an additional sampling port to be a necessary requirement.
RTC-51	<p><b>From UMCDF 4/09/02 Comments Re: Permit Condition III.B.12</b></p> <p><b>Comment 3:</b> “There appears to be a numbering problem with the items listed under Permit Condition III.B.12 (starts with “iii” rather than “i”).”</p>	The numbering in Permit Condition III.B.12 is erroneous, but no text is missing. The requirements incorrectly indicated as III.B.12.iii through III.B.12.ix will be corrected to read as III.B.12.i through III.B.12.vii.
RTC-52	<p><b>From UMCDF 4/09/02 Comments Re: Permit Condition III.B.12.iii (Permit Condition III.B.12.i when corrected)</b></p> <p><b>Comment 4:</b></p> <p>a) “If renumbered, the cross-reference to Item ii will be correct.</p> <p>b) As written, the text might infer that 0.25 of the eight-hour TWA would constitute a reportable quantity release of agent to the environment. In addition, the duration of the air monitoring is not identified. Suggest modifying to read:</p> <p>“Prior to placing the filter into service (see Item ii below), the air within the rear stack immediately downstream of the rear stack vent will be monitored <del>for at least one complete RTAP cycle as</del></p>	<p>a) The text will be renumbered as III.B.12.i</p> <p>b) The inference that 0.25 of the eight-hour TWA value would constitute a reportable quantity release is correct and wording will be added to III.B.12.i. to provide clarification. This requirement is consistent with the Tier 3 monitoring requirement included in the Storage Unit Operations and Management Plan (SUOMP) currently employed by UMCD in their monitoring of K-Block igloos. The same Real-Time Analytical Platforms (RTAP) used by UMCD are slated for monitoring use by UMCDF and are described in Permit Application Attachment F-1. The RTAPs, as currently used, are capable of and calibrated for reliable quantification of agent vapor concentrations down to the 0.25 TWA (8hr.) values. Consequently, detection of agent at concentrations</p>



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	<p>indicated in Permit Condition III.B.11.iii to determine if there has been a release of agent to the environment. Detection of agent within the stack and downstream of the closed rear stack vent <b>equal to or in excess of the eight-hour TWA limits listed in Permit Condition III.B.11.iii</b> would constitute migration of agent of a reportable quantity (OAR 340-108-0010), and the appropriate notifications would be made in accordance with Permit Condition I.U.”</p> <p>This is consistent with Permit Condition I.U.1.ii.d.”</p>	<p>equal to or greater than 0.25 of the eight-hour TWA agent values outside of the storage unit, in addition to constituting a reportable quantity, also represents a confirmed release of agent in accordance with the “no migration” standard as defined in OAR 340-104-1201(3). Since the procedures for RTAP are well defined, the Department does not deem it necessary to specify minimum monitoring duration.</p> <p>Based on the above responses, the proposed language does appear to the Department to need revision. Modification of the proposed wording will be made to refer to 0.25 of the 8-hour TWA values.</p>
RTC-53	<p><b>From UMCDF 4/09/02 Comments Re: Permit Application Section D-1j, Ventilation, Page D-1c-7</b></p> <p><b>Comment 5:</b> “This is inconsistent with the proposed language in Permit Condition III.B.12.i, which states the listed actions will occur <i>“prior to placing the filter into service”</i> (not before installing the filter), thus allowing personnel the flexibility of installing the filter before or after monitoring of the stack air. Therefore, the Permittees suggest the following modifications to the proposed language.</p> <p>“The interior air of igloos storing 1X waste will be monitored weekly or prior to any entry to determine if leakage of agent has occurred from stored containerized 1X waste. In the unlikely event that agent is detected through headwall monitoring, <b>a powered</b></p>	<p>To ascertain whether or not representative sampling of the rear stack could be conducted after installing the powered carbon filter, as allowed by the suggested text changes, examination of the rear stack of a J-Block igloo was done jointly by representatives of the Department and Permittees.</p> <p>In addition, the head of the UMCD Chemical Operations Directorate was consulted to confirm how the powered carbon filter is physically attached to the stack during operation.</p> <p>Information provided by UMCD indicates that the powered filter is attached to an 8- by 12-inch access port located on the side of the concrete stack just above the level of the vent opening inside the stack. The access port on the side of the stack is equipped with a hinged metal closure plate and is normally closed. Opening of the</p>

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	<p><del>carbon filter will be installed on the igloo and</del> the air in the rear vent stack downstream of the closed rear vent will also be monitored to determine if any release has occurred. After monitoring of the stack air and prior to any entry, <del>a powered carbon filter will be installed on the igloo and</del> the contaminated interior air will be exhausted through the filter to capture the contamination.”</p>	<p>port to attach the powered filter exposes the interior of the stack directly above the vent to the outside air and destroys any possibility of taking an undisturbed, representative sample downstream of the vent.</p> <p>Consequently, stack monitoring <i>must</i> precede installation of the powered filter and the suggested changes cannot be accepted. No change to this part of the proposed modifications will be made.</p>
RTC-54	<p><b>From UMCDF 4/09/02 Comments Re: Permit Application Section D-3a(1), Description of Containers, Page D-3a-5</b></p> <p><b>Comment 6:</b> “If this permit modification request is approved, “normal operations” will include the storage of 1X waste in J-Block igloos. To delete the redundancy and avoid any confusion, we suggest the following wording.</p> <p>“All J-Block storage igloos have two air vents that remain open to the atmosphere except when storing 1X waste (“higher-level waste” as defined in the UMCDF Hazardous Waste Permit).“</p>	<p>Although the Department concedes that the suggested wording is much simpler than the proposed text, the Department does not agree with the indicated basis for the change. While approval of permitted storage operations in J-Block in accordance with the proposed modifications will recognize that closed-vent operation of the igloos designated for storage of “high level waste” is acceptable, it is still a variation from the manner in which the igloos were designed for operation. Although it may be considered “normal operations” within the limited purview of UMCDF, it is not normal within the wider scope of Army experience and will be monitored closely for any indications of resulting deterioration in storage conditions. Additional discussion of closed-vent operations can be found in the response to RTC-48 above. No revision of this part of the proposed modifications will be made.</p>
RTC-55	<p><b>From UMCDF 4/09/02 Comments Re: Permit Application Section D-3a(1), Description of Containers, Page D-3a-6</b></p>	<p>To ascertain whether or not representative sampling of the rear stack could be conducted after installing the powered carbon filter, as allowed by the suggested text changes, examination of the rear</p>

**RESPONSE TO COMMENTS**

Related to

**Permit Modification Request UMCDF-00-004-WAST(3)**

Permitted Storage in J-Block

RESPONSE TO COMMENT (RTC) NO.	COMMENT	DEPARTMENT RESPONSE
	<p><b>Comment 7:</b> "This is inconsistent with the proposed language in Permit Condition III.B.12.i, which states the listed actions will occur <i>"prior to placing the filter into service"</i> (not before installing the filter), thus allowing personnel the flexibility of installing the filter before or after monitoring of the stack air. Therefore, the Permittees suggest the following modifications to the proposed language.</p> <p>"The interior air of igloos storing 1X waste will be monitored weekly or prior to any entry to determine if leakage of agent has occurred from stored containerized 1X waste. If agent is detected through headwall monitoring, <b>a powered carbon filter will be installed on the igloo and</b> the air in the rear vent stack downstream of the closed rear vent will also be monitored to determine if any release has occurred. After monitoring of the stack air and prior to any entry, <del>a powered carbon filter will be installed on the igloo and</del> the contaminated interior air will be exhausted through the filter to capture the contamination."</p>	<p>stack of a J-Block igloo was done jointly by representatives of the Department and Permittees.</p> <p>In addition, the head of the UMCD Chemical Operations Directorate was consulted to confirm how the powered carbon filter is physically attached to the stack during operation.</p> <p>Information provided by UMCD indicates that the powered filter is attached to an 8- by 12-inch access port located on the side of the concrete stack just above the level of the vent opening inside the stack. The access port on the side of the stack is equipped with a hinged metal closure plate and is normally closed. Opening of the port to attach the powered filter exposes the interior of the stack directly above the vent to the outside air and destroys any possibility of taking an undisturbed, representative sample downstream of the vent.</p> <p>Consequently, stack monitoring <i>must</i> precede installation of the powered filter and the suggested changes cannot be accepted. No change to this part of the proposed modifications will be made.</p>
RTC-56	<p><b>From UMCDF 4/09/02 Comments Re: Permit Application Section D-3a(1), Container Management Practices, Page D-3a-9</b></p> <p><b>Comment 8:</b> "Because it would be fruitless to monitor containers coming from a nonagent environment, it is important to establish</p>	<p>The comment is correct. The requirement for monitoring of containerized wastes to confirm that the containers classify as "lower level wastes" prior to storage in J-Block does not apply to containerized wastes originating from process areas where there is no potential for agent contamination. However, because it could conceivably be necessary in some cases to monitor some non-</p>

**RESPONSE TO COMMENTS**

Related to

**Permit Modification Request UMCDF-00-004-WAST(3)**

Permitted Storage in J-Block

RESPONSE TO COMMENT (RTC) NO.	COMMENT	DEPARTMENT RESPONSE
	<p>container monitoring requirements based on container origination. Thus, we propose the following modifications.</p> <p>... Prior to placement in J-Block, the exterior of all <b>potentially agent-contaminated</b> containers will be air monitored to determine whether they are emitting detectable concentrations of agent. <b>Waste containers from nonagent processes/environments are not subject to exterior monitoring...</b></p>	<p>agent-contaminated containerized wastes for other reasons (for example, due to requirements of 40 CFR 264 Subpart CC) the suggested wording appears too broad. With modified wording, the suggested clarification will be incorporated in the proposed modifications. The following wording will be incorporated:</p> <p>“..... Prior to placement in J-Block, the exterior of all <b>potentially agent-contaminated</b> containers will be air monitored to determine whether they are emitting detectable concentrations of agent. <b>Agent-contaminated waste will be stored in J-Block only when container exterior levels are determined to be below the 3X limit as defined in Section C-1. Air monitoring for agent emissions does not apply to containerized wastes originating from process areas where there is no potential for agent contamination.</b>”</p>
RTC-57	<p><b>From UMCDF 4/09/02 Comments Re: Permit Application Section D-3a(3)(c), Containment System Capacity, Page D-3a-14</b></p> <p><b>Comment 9:</b> “The citation needs to be corrected to read 40 CFR 264.175(b)(3).”</p>	<p>The comment is correct. Editorial correction will be made as noted.</p>
RTC-58	<p><b>From UMCDF 4/09/02 Comments Re: Permit Application Section F-1, Pages F-1-1 and F-1-2</b></p> <p><b>Comment 10:</b> “Changes proposed in the original request</p>	<p>The changes on pages F-1-1 and F-1-2 are included as part of the proposed modifications. The changes on those two pages are of a minor editorial nature or are terminology changes being made universally, such as the change from UMDA to UMCD given as an</p>

**RESPONSE TO COMMENTS**  
 Related to  
**Permit Modification Request UMCDF-00-004-WAST(3)**  
 Permitted Storage in J-Block

RESPONSE TO COMMENT (RTC) NO.	COMMENT	DEPARTMENT RESPONSE
	(Attachment 1) were apparently overlooked in this submittal, and the Permittees request their incorporation.”	example in the Attachment C cover sheet.
RTC-59	<p><b>From UMCDF 4/09/02 Comments Re: Permit Application Section F-3a(1), Internal Communications, Page F-3-1</b></p> <p><b>Comment 11:</b> “Information regarding communications to personnel outside the UMCDF treatment area (including the J-Block area) proposed in the original submittal have not been incorporated in the draft language. Much of this information compliments, but is not redundant of, that found in Section G-7 of the Contingency Plan. Therefore, the Permittees request the following modifications to this section.</p> <p><b>“Immediate emergency notification and instruction are provided to UMCDF personnel working outside by sirens and the accompanying public-address system. At least seven sirens are located in strategic locations throughout the UMCD. The public-address speakers are located together with the sirens. The Operations Center has the capability of sounding the sirens individually, in any combination, or all at the same time. The public-address system can broadcast recorded or live messages. Live messages are used in most instances. A second siren network is available for backup. This network consists of five sirens and is controlled by the UMCD Fire Department. This network does not have the capability of</b></p>	<p>The textual information addressed by UMCDF Comments 11 and 12 include proposed changes included in the original PMR submittal that the Department thought had been superceded by review and Departmental approval of changes to Section F resulting from a subsequent PMR [UMCDF-01-015-INSP(2) “Update to Inspection Plan and Associated Documents”]. In response to Permittees requests in Comments 11 and 12, the changes on pages F-3-1 and F-3-2 will be included as proposed in the February 29, 2000 PMR submittal.</p>

**RESPONSE TO COMMENTS**  
 Related to  
**Permit Modification Request UMCDF-00-004-WAST(3)**  
 Permitted Storage in J-Block

RESPONSE TO COMMENT (RTC) NO.	COMMENT	DEPARTMENT RESPONSE
	<p><b>broadcasting messages. The sirens may be sounded individually or all at once.</b></p> <p><b>“Personnel working in J-Block will communicate via two-way radio or cellular phone.</b></p> <p>“Telephone and public-address loudspeakers will be available throughout the UMCDF <b>treatment areas</b> and in all work areas for use in case of emergencies. The telephone system will be available for internal as well as external communications. The UMCDF’s emergency communications systems are <b>further</b> described in <b>sSection G-7.</b>”</p>	
RTC-60	<p><b>From UMCDF 4/09/02 Comments Re: Permit Application Section F-3a(3), Emergency Equipment Requirements, Page F-3-1</b></p> <p><b>Comment 12:</b> “The Permittees suggest this be struck from this section. It was proposed for deletion in the Permittees’ original submittal because it is more appropriately and already addressed under Sections F-3a(1), Internal Communications, and F-3a(2), External Communications.”</p>	<p>As indicated in RTC-59, the textual information addressed by UMCDF Comments 11 and 12 include proposed changes included in the original PMR submittal that the Department thought had been superceded by review and Departmental approval of changes to Section F resulting from a subsequent PMR [UMCDF-01-015-INSP(2) “Update to Inspection Plan and Associated Documents”]. In response to Permittees requests in Comments 11 and 12, the changes on Pages F-3-1 and F-3-2 will be included as proposed in the February 29, 2000 PMR submittal.</p>

## **ATTACHMENT D**

### ***Index of Documents Related to Assessment of Toxic Waste Storage Fees by Morrow County***

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## Index of Documents Related to Assessment of Toxic Waste Storage Fees by Morrow County

DEQ Item No	Document Description	Date of Document	Date Received	From	Organization To
2184	Public Comments Received for the Proposed Permit for Storage and Treatment of Hazardous Waste for the Umatilla Army Depot Incinerator	10/28/1996	10/31/1996	Marvin Padberg, Morrow County Commission	Henry Lorenzen, Chair, Oregon Environmental Commission
01-0173	Morrow County Toxic Waste Ordinance No. MC-C-1-97	3/5/1997	2/7/2001		Morrow County Commissioners
98-1633	Response to Letter of April 9, 1997 Regarding the Morrow County Toxic Waste Ordinance	5/7/1997	6/12/1997	Morrow County Commissioners	Gilbert Decker, Department of the Army
2747	Oregon Legislature Passed a Bill Enabling Counties to Impose a Fee for Recovery or Remedial Actions Involving Certain Chemical Agents	8/28/1997	8/28/1997	Morrow County Commissioners	Col. John Gorrell, U.S. Army Program Manager for Chemical Demilitarization
2793	Addition of Permit Condition Requiring Fees UMCDF-97-002-RDC(3E)	10/8/1997	10/10/1997	Morrow County Commissioners	John Kitzhaber, Office of the Governor

DEQ Item No	Document Description	Date of Document	Date Received	From	Organization To
2794	Suit Related to UMCDF Incinerator UMCDF-97-002-RDC(3E)	10/8/1997	10/10/1997	Morrow County Commissioners	Karyn Jones, G.A.S.P., et al.
2788	Fee for Storage of Chemical Agents within the County UMCDF-97-002-RDC(3E)	10/13/1997	10/16/1997	Gilliam County Commissioners	John Kitzhaber, Office of the Governor
2843	Morrow County Requests the Environmental Quality Commission (EQC) to Add Permit Condition Requiring Compliance with ORS Chapter 554	11/5/1997	11/10/1997	Morrow County Court	Langdon Marsh, Director, Oregon DEQ
2826	Morrow County Comments Concerning Incorporation of Raytheon as Co-Permittee UMCDF-97-002-RDC93E)	11/18/1997	11/18/1997	Langdon Marsh, Director, Oregon DEQ	Morrow County Commissioners
00-0674	Highlights - Counties Impact Aid Efforts - package sent from Governor's Office (210 pages of various correspondence and reports, including a Community Impact Study)	(unknown, but assumed to be early 2000)	5/11/2000	(unknown)	(unknown)

DEQ Item No	Document Description	Date of Document	Date Received	From	Organization To
00-0201	Impact Fees for Morrow and Umatilla Counties regarding UMCDF	1/20/2000	2/7/2000	Holland & Hart, Attorney at Law	James Bacon, U.S. Army Program Manager for Chemical Demilitarization
00-0203	Remedies available to Umatilla and Morrow Counties	1/28/2000	2/4/2000	K Kutler, Oregon Department of Justice	Stephanie Hallock, Office of the Governor
00-0322	Governor's Response to the December 20, 1999 letter from Louis Caldera regarding impact aid to communities in Eastern Oregon	3/6/2000	3/8/2000	John Kitzhaver, Office of the Governor	Louis Caldera, Secretary of the Army, The Pentagon
01-0493	Memorandum Regarding the Umatilla Depot Storage Permit	4/5/2001	4/5/2001	Larry Edelman, Oregon Department of Justice	Wayne Thomas, Oregon DEQ-Hermiston
01-1305	CD-ROM: Assessment of the Need for Assistance to Communities Affected by Chemical Demilitarization: Final Report	6/1/2001	10/24/2001	Institute of Defense Analyses	Wayne Thomas, Oregon DEQ-Hermiston

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## **ATTACHMENT E**

***Index of Documents Related to Permit  
Modification No. UMCDF-00-004-WAST(3)  
“Permitted Storage in J-Block”***

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***Index of Documents Related to Permit Modification No. UMCDF-00-004-WAST(3)  
"Permitted Storage in J-Block"***

DEQ Item No	Document Description	Date of Document	Date Received	From	To
00-0294	(Transmittal Letter) Umatilla Chemical Agent Disposal Facility Hazardous Waste Permit and Umatilla Chemical Depot Hazardous Waste Permit-Class 3 Permit Modification Request UMCDF-00-004-WAST(3), Regarding Permitted Storage in J-Block	2/25/2000	2/29/2000	Umatilla Chemical Agent Disposal Facility (UMCDF)	Oregon DEQ-Hermiston
00-0295	(Binder) Umatilla Chemical Agent Disposal Facility Hazardous Waste Permit and Umatilla Chemical Depot Hazardous Waste Permit-Class 3 Permit Modification Request UMCDF-00-004-WAST(3), Regarding Permitted Storage in J-Block	2/1/2000	2/29/2000	Umatilla Chemical Agent Disposal Facility (UMCDF)	Oregon DEQ-Hermiston
00-0324	NOTICE: Class 3 Permit Modification Request UMCDF-00-004-WAST(3), Regarding Permitted Storage in J-Block	2/1/2000	3/1/2000	Umatilla Chemical Agent Disposal Facility (UMCDF)	Umatilla Mailing List

DEQ Item No	Document Description	Date of Document	Date Received	From	To
00-0517	Completion of Permittee Requirements for Public Participation Regarding Class 3 Permit Modification Request UMCDF-00-004-WAST(3), Permitted Storage in J-Block	4/5/2000	4/11/2000	Umatilla Chemical Agent Disposal Facility (UMCDF)	Oregon DEQ-Hermiston
00-0631	Public Comments regarding the Class 3 Permit Modification Request UMCDF-00-004-WAST(3) "Permitted Storage in J-Block"	4/28/2000	4/28/2000	Confederated Tribes of the Umatilla Indian Reservation	Oregon DEQ-Hermiston
00-0638	Public Comments Regarding a Class 3 Permit Modification Request UMCDF-00-004-WAST(3), Permitted Storage in J-Block	4/21/2000	5/1/2000	Morrow County Planning Department	Oregon DEQ-Hermiston
00-0645	Public Comments Received Regarding Permit Modification Request UMCDF-00-004-WAST(3) "Permitted Storage in J-Block"	5/1/2000	5/1/2000	Richard Condit, GASP, et al.	Oregon DEQ-Hermiston
00-0808	Transmittal Letter Notice of Deficiency (NOD) Class 3 Permit Modification Request UMCDF-00-004-WAST(3) "Permitted Storage in J-Block"	6/7/2000	6/7/2000	Oregon DEQ-Hermiston	Umatilla Chemical Agent Disposal Facility (UMCDF)



DEQ Item No	Document Description	Date of Document	Date Received	From	To
00-0809	Notice of Deficiency (NOD) Class 3 Permit Modification Request UMCDF-00-004-WAST(3) "Permitted Storage in J-Block"	6/7/2000	6/7/2000	Oregon DEQ-Hermiston	Umatilla Chemical Agent Disposal Facility (UMCDF)
00-1113	Response to Notice of Deficiency (NOD) for Class 3 Permit Modification Request UMCDF-00-004-WAST(3), "Permitted Storage in J-Block"	8/7/2000	8/7/2000	Umatilla Chemical Agent Disposal Facility (UMCDF)	Oregon DEQ-Hermiston
00-1114	Attachment to 00-1113; BINDER for the Response to Notice of Deficiency (NOD) for Class 3 Permit Modification Request UMCDF-00-004-WAST(3), "Permitted Storage in J-Block"	8/7/2000	8/7/2000	Umatilla Chemical Agent Disposal Facility (UMCDF)	Oregon DEQ-Hermiston
00-1177	August 7, 2000 Army Response to the Notice of Deficiency for the Class 3 Permit Modification Request UMCDF-00-004-WAST(3) "Secondary Waste Storage J-Block"	8/22/2000	8/23/2000	Confederated Tribes of the Umatilla Indian Reservation	Oregon DEQ-Hermiston

DEQ Item No	Document Description	Date of Document	Date Received	From	To
01-0101	Transmittal Letter of the Second Notice of Deficiency (NOD) Class 3 Permit Modification Request UMCDF-00-004-WAST(3) "Permitted Storage in J-Block"	1/26/2001	1/26/2001	Oregon DEQ-Hermiston	Umatilla Chemical Agent Disposal Facility (UMCDF)
01-0102	Attachment to 01-0101: Second Notice of Deficiency (NOD) Class 3 Permit Modification Request UMCDF-00-004-WAST(3) "Permitted Storage in J-Block"	1/26/2001	1/26/2001	Oregon DEQ-Hermiston	Umatilla Chemical Agent Disposal Facility (UMCDF)
01-0515	Response to Second Notice of Deficiency for Class 3 Permit Modification Request UMCDF-00-004-WAST(3), Permitted Storage in J-Block	4/16/2001	4/17/2001	Umatilla Chemical Agent Disposal Facility (UMCDF)	Oregon DEQ-Hermiston
01-1044	Supplemental Submittal to Permit Modification Request (PMR) UMCDF-00-004-WAST(3), "Permitted Storage in J-Block"	8/28/2001	8/28/2001	Umatilla Chemical Agent Disposal Facility (UMCDF)	Oregon DEQ-Hermiston
02-0158	Review Report Class 3 Permit Modification Request UMCDF-00-004-WAST(3), "Permitted Storage in J-Block"	1/30/2002	1/31/2002	Oregon DEQ-Hermiston	Oregon DEQ-Hermiston

DEQ Item No	Document Description	Date of Document	Date Received	From	To
02-0159	Notice of Substantial Completion of Application and Intent to Prepare Draft Permit Class 3 Permit Modification Request UMCDF-00-004-WAST(3) "Permitted Storage in J-Block"	1/31/2002	1/31/2002	Oregon DEQ-Hermiston	Umatilla Chemical Agent Disposal Facility (UMCDF)
02-0277	Public Notice-Request for Comments and Notice of Public Hearing "Permit Modification Request UMCDF-00-004-WAST(3) Permitted Storage in J Block"	2/22/2002	2/22/2002	Oregon DEQ-Hermiston	Umatilla Mailing List
02-0283	Transmittal of Class 3 Permit Modification Request UMCDF-00-004-WAST(3) "Permitted Storage in J-Block" of Proposed Permit Modification to the Permit and Application to the Information Repositories	2/25/2002	2/25/2002	Oregon DEQ-Hermiston	Information Repositories
02-0284	Transmittal of Class 3 Permit Modification Request UMCDF-00-004-WAST(3) "Permitted Storage in J-Block" of Proposed Permit Modification to the Permit and Application to Commentors	2/25/2002	2/25/2002	Oregon DEQ-Hermiston	Interested Parties

DEQ Item No	Document Description	Date of Document	Date Received	From	To
02-0285	Proposed Modification Packet for the Class 3 Permit Modification Request UMCDF-00-004-WAST(3) "Permitted Storage in J-Block"	2/25/2002	2/25/2002	Oregon DEQ-Hermiston	Information Repositories/Interested Parties
02-0296	Transmittal of Draft HW Permit/Part B Permit Application Language Issued for Public Review and Comment-Class 3 Permit Modification Request UMCDF-00-004-WAST(3), "Permitted Storage in J-Block"	2/26/2002	2/26/2002	Oregon DEQ-Hermiston	Umatilla Chemical Agent Disposal Facility (UMCDF)
02-0490	Public Comments for Class 3 Permit Modification Request UMCDF-00-004-WAST(3), "Permitted Storage in J-Block" from CTUIR	4/5/2002	4/5/2002	Confederated Tribes of the Umatilla Indian Reservation (CTUIR)	Oregon DEQ-Hermiston
02-0492	Presiding Officer's Report: 3/27/02. Public Hearing Permit Modification No. UMCDF-00-004-WAST(3), "Permitted Storage in J-Block"	4/3/2002	4/4/2002	Oregon DEQ-Pendleton (P Daniello)	File
02-0519	Comments on Draft Hazardous Waster Permit/Part B Permit Application Language on UMCDF-00-004-WAST(3), "Permitted Storage in J-Block"	4/9/2002	4/9/2002	Umatilla Chemical Agent Disposal Facility (UMCDF)	Oregon DEQ-Hermiston

State of Oregon  
Department of Environmental Quality

Memorandum

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**To:** Environmental Quality Commission **Date:** May 21, 2002  
**From:** *Anne R. Price*  
Anne R. Price, Administrator  
Office of Compliance and Enforcement  
**Subject:** Preparation for June 7 Work Session on Compliance and Enforcement Rules

We have made plenty of progress on revising DEQ's compliance and enforcement rules (Division 12) since my last update to you in January 2002. On June 7<sup>th</sup>, I'm looking forward to your input on our progress to date and on some of the more complex policy issues related to the entire compliance and enforcement process. I will be most interested in having your input on the balance between a formal enforcement response to non-compliance and a less formal technical assistance response.

Next week I will forward to you some preparatory materials for our discussion. They will include:

- a summary of the progress made to date;
- a framework for looking at the compliance and enforcement issues relating to small entities (small business, individuals and small municipalities);
- a description of the different parts of the enforcement process and the purpose of each part;
- several compliance and enforcement process diagrams to guide our discussion.

If you have any questions in the meantime, please do not hesitate to contact me at (503) 229-6585. Thank you for your willingness to dedicate your time to addressing these important issues. I look forward to seeing you all again.





# Oregon

John A. Kitzhaber, M.D., Governor

## Department of Environmental Quality

811 SW Sixth Avenue  
Portland, OR 97204-1390  
(503) 229-5696  
TDD (503) 229-6993

To: The Environmental Quality Commission

From: *Anne R. Price*  
Anne R. Price, Administrator  
Office of Compliance and Enforcement

Date: May 31, 2002

Re: Agenda Item E – Work Session: Revising Enforcement and Compliance Rules

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Attached you will find several materials for the Work Session on the Enforcement and Compliance Rules scheduled for June 7<sup>th</sup> in Salem. Do not be overwhelmed by the volume, I'll describe what you are likely to want to look at before the meeting.

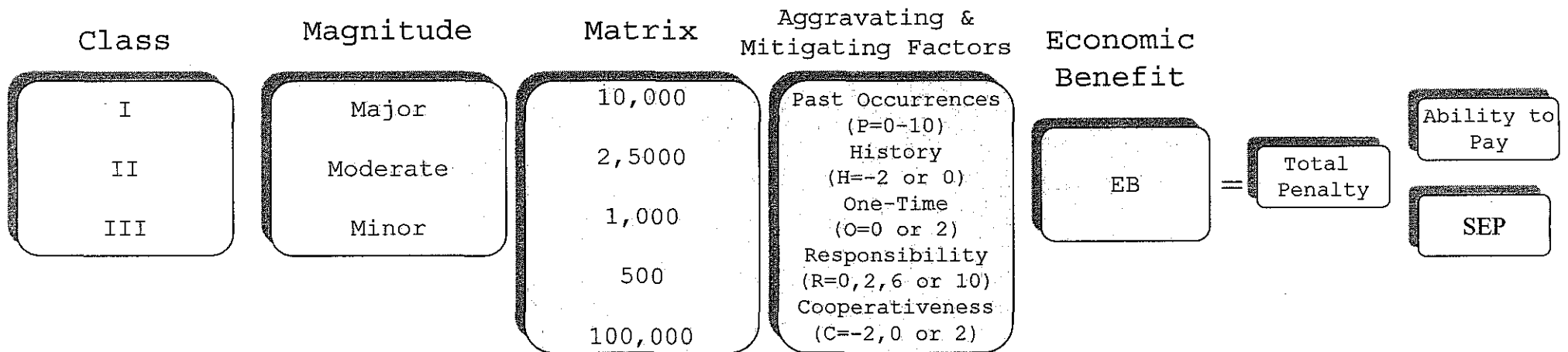
I have planned to have the work session cover the following items and am entirely open to being flexible to what comes up in the discussion in order to make best use of our time together.

- Status of Rulemaking Efforts – 10 minutes
  - This will be a brief overview of our goals, what we have accomplished to-date and the process we have used.
- Penalty Calculation Process (See attached diagram – Attachment A) – 30 minutes
  - This segment will reintroduce the main parts of the penalty calculation process; will present the main issues we have tackled; and will identify outstanding areas to be addressed.
  - It might be beneficial to read ORS Section 468.130 (Attachment B) to have in mind what the enforcement-related statute requires DEQ to consider in setting penalties.
  - If you kept copies of OAR Division 12 from our January work session, please bring those to this meeting. I will provide you another copy at the meeting if you need one, however.
- Overview of Process from Discovery to Compliance Assistance or Enforcement (See attached diagram – Attachment C) – 5 minutes
  - This diagram shows how all the different pieces of the compliance and enforcement process fit together in order to understand where to apply solutions to any issues raised.

- Potential Enforcement Guidance Filter Factors (See attached diagram – Attachment D) – 60 minutes
  - This part of the meeting will be the bulk of our discussion and is intended to get the Commission member's input on what combination of factors they believe should be considered in the Agency's determination as to whether to go forward with formal enforcement or whether to address violators through compliance assistance or informal enforcement.
  - The current draft of the Enforcement Guidance document is attached (Attachment E). **You do not have to read the whole document!** However, I would recommend that you skim the table of contents and whatever interests you inside. Field staff are to consult this document after an inspection in order to determine what type of notice of noncompliance response should be sent (e.g., whether the violations will or will not be referred for formal enforcement). I will provide a quick overview of the document at the beginning of our discussion.
- Where do we all go from here?
  - DEQ's rulemaking effort – what's next in our process
  - EQC involvement – what would the EQC like to know about next

I am looking forward to our discussion and your input to this important process for DEQ. If you have any questions before the meeting or believe any other information would be helpful to our discussion, please feel free to contact me at (503)229-6585. Thanks!

## Penalty Calculation Process



$$\text{Class} \rightarrow \text{Magnitude} \rightarrow \text{Matrix} \rightarrow \text{Base Penalty} + [(.1X(P+H+O+R+C))] + \text{EB} = \text{Total Penalty}$$

### Definitions

**Class:**  
Classification addresses the nature of the violation itself. The purpose of classifications is to separate the violations so that similar types of violations are treated with the same level of severity.  
Class I represents those violations that have the potential to cause the greatest environmental or HH harm or are most critical to the structure of the program.

**Magnitude:**  
Magnitudes are intended to differentiate between actual violation incidents on the basis of their specific impact. Thus violations creating a similar degree of environmental or human health impact are at the same magnitude, or violations with equally "nasty" impacts are treated equally.

**Matrix:**  
The matrices can allow the type of violator to be weighed against the level of penalty needed to get deterrence. It's where the "who is the violator" factor.  
*Options*  
•Send Individuals, Small Businesses and/or small Municipalities to a lower matrix. Always? Or by violator type?  
•Send all violators to the appropriate matrix by violator type; use a mitigation factor to address who the violator is.

**Aggravating & Mitigating Factors:**  
Aggravating and mitigating factors allow case specific facts, other than the type of violation or magnitude of the violation to be considered. These factors are intended to aggravate or mitigate penalties similarly, given similar facts.  
*Options*  
•Add a mitigating factor for violator size.

**Economic Benefit:**  
Intended to level the economic playing field based on what the violator should have invested or spent in order to have achieved and maintained compliance. No consideration for who the violator is.

After the total penalty is calculated:  
**Ability to Pay:**  
Procedures to determine actual ability to pay by the specific violator. Information is taken into consideration for settlement offer.  
**Supplemental Environmental Projects:**  
For penalties over \$2,000, the opportunity to do environmental enhancement projects to mitigate penalty amount, if approved by DEQ.



Note: See note under 468.076.

**468.080 Applicability of Oregon law.**

The law to be applied in an action or other proceeding brought under ORS 468.076 to 468.087, including what constitutes "pollution," is the law of Oregon excluding Oregon's choice of law rules. Nothing in ORS 468.076 to 468.087 restricts the applicability of federal law in actions in which federal law is preemptive. Nothing in ORS 468.076 to 468.087 determines whether state law or federal law applies in any particular legal action. [1991 c.826 §5]

Note: See note under 468.076.

**468.081 Rights of injured person.**

ORS 468.076 to 468.087 do not accord a person injured or threatened with injury in another jurisdiction any rights superior to those that the person would have if injured or threatened with injury in Oregon. [1991 c.826 §6]

Note: See note under 468.076.

**468.083 Right conferred under ORS 468.076 to 468.087 in addition to other rights.** The right provided in ORS 468.076 to 468.087 is in addition to, and not in derogation of, any other right. [1991 c.826 §7]

Note: See note under 468.076.

**468.085 Sovereign immunity defense.**

The defense of sovereign immunity is applicable in any action or other proceeding brought under ORS 468.076 to 468.087 only to the extent that it would apply to a person injured or threatened with injury in Oregon. [1991 c.826 §8]

Note: See note under 468.076.

**468.087 Application and construction of ORS 468.076 to 468.087.** ORS 468.076 to 468.087 shall be applied and construed to carry out the general purpose of ORS 468.076 to 468.089 to make uniform the law with respect to the subject of ORS 468.076 to 468.089 among the jurisdictions enacting it. [1991 c.826 §9]

Note: See note under 468.076.

**468.089 Short title.** ORS 468.076 to 468.087 shall be known and may be cited as the "Uniform Transboundary Pollution Reciprocal Access Act." [1991 c.826 §1]

Note: See note under 468.076.

## ENFORCEMENT

**468.090 Complaint procedure.** (1) In case any written substantiated complaint is filed with the Department of Environmental Quality which it has cause to believe, or in case the department itself has cause to believe, that any person is violating any rule or standard adopted by the Environmental Quality Commission or any permit issued by the department by causing or permitting wa-

ter pollution or air pollution or air contamination, the department shall cause an investigation thereof to be made. If it finds after such investigation that such a violation of any rule or standard of the commission or of any permit issued by the department exists, it shall by conference, conciliation and persuasion endeavor to eliminate the source or cause of the pollution or contamination which resulted in such violation.

(2) In case of failure to remedy the violation, the department shall commence enforcement proceedings pursuant to the procedures set forth in ORS 183.310 to 183.550 for a contested case and in ORS 468B.032. [Formerly 449.815; 1999 c.975 §3]

**468.095 Investigatory authority; entry on premises; status of records.**

(1) The Department of Environmental Quality shall have the power to enter upon and inspect, at any reasonable time, any public or private property, premises or place for the purpose of investigating either an actual or suspected source of water pollution or air pollution or air contamination or to ascertain compliance or noncompliance with any rule or standard adopted or order or permit issued pursuant to ORS 448.305, 454.010 to 454.040, 454.205 to 454.255, 454.505 to 454.535, 454.605 to 454.755 and ORS chapters 468, 468A and 468B. The Environmental Quality Commission shall also have access to any pertinent records relating to such property, including but not limited to blueprints, operation and maintenance records and logs, operating rules and procedures.

(2) Unless classified by the Director of the Department of Environmental Quality as confidential, any records, reports or information obtained under ORS 448.305, 454.010 to 454.040, 454.205 to 454.255, 454.505 to 454.535, 454.605 to 454.755 and ORS chapters 468, 468A and 468B shall be available to the public. Upon a showing satisfactory to the director by any person that records, reports or information, or particular parts thereof, other than emission data, if made public, would divulge a secret process, device or method of manufacturing or production entitled to protection as trade secrets of such person, the director shall classify such record, report or information, or particular part thereof, other than emission data, confidential and such confidential record, report or information, or particular part thereof, other than emission data, shall not be made a part of any public record or used in any public hearing unless it is determined by a circuit court that evidence thereof is necessary to the determination of an issue or issues being decided at a public hearing. [Formerly 449.169; 1975 c.173 §1]

**468.100 Enforcement procedures; powers of regional authorities; status of procedures.** (1) Whenever the Environmental Quality Commission has good cause to believe that any person is engaged or is about to engage in any acts or practices which constitute a violation of ORS 448.305, 454.010 to 454.040, 454.205 to 454.255, 454.505 to 454.535, 454.605 to 454.755 and ORS chapters 468, 468A and 468B, or any rule, standard or order adopted or entered pursuant thereto, or of any permit issued pursuant to ORS 448.305, 454.010 to 454.040, 454.205 to 454.255, 454.505 to 454.535, 454.605 to 454.755 and ORS chapters 468, 468A and 468B, the commission may institute actions or proceedings for legal or equitable remedies to enforce compliance thereto or to restrain further violations.

(2) The proceedings authorized by subsection (1) of this section may be instituted without the necessity of prior agency notice, hearing and order, or during said agency hearing if it has been initially commenced by the commission.

(3) A regional authority formed under ORS 468A.105 may exercise the same functions as are vested in the commission by this section insofar as such functions relate to air pollution control and are applicable to the conditions and situations of the territory within the regional authority. The regional authority shall carry out these functions in the manner provided for the commission to carry out the same functions.

(4) The provisions of this section are in addition to and not in substitution of any other civil or criminal enforcement provisions available to the commission or a regional authority. The provisions of this section shall not prevent the maintenance of actions for legal or equitable remedies relating to private or public nuisances brought by any other person, or by the state on relation of any person without prior order of the commission. [1973 c.826 §2; 1979 c.284 §153]

468.105 [Repealed by 1974 c.36 §28]

**468.110 Appeal; power of court to stay enforcement.** Any person adversely affected or aggrieved by any order of the Environmental Quality Commission may appeal from such order in accordance with the provisions of ORS 183.310 to 183.550. However, notwithstanding ORS 183.480 (3), relating to a stay of enforcement of an agency order and the giving of bond or other undertaking related thereto, any reviewing court before it may stay an order of the commission shall give due consideration to the public interest in the continued enforcement of the commission's order, and may take testimony thereon. [Formerly 449.090]

**468.115 Enforcement in cases of emergency.** (1) Whenever it appears to the Department of Environmental Quality that water pollution or air pollution or air contamination is presenting an imminent and substantial endangerment to the health of persons, at the direction of the Governor the department shall, without the necessity of prior administrative procedures or hearing, enter an order against the person or persons responsible for the pollution or contamination requiring the person or persons to cease and desist from the action causing the pollution or contamination. Such order shall be effective for a period not to exceed 10 days and may be renewed thereafter by order of the Governor.

(2) The state and local police shall cooperate in the enforcement of any order issued pursuant to subsection (1) of this section and shall require no further authority or warrant in executing and enforcing such an order.

(3) If any person fails to comply with an order issued pursuant to subsection (1) of this section, the circuit court in which the source of water pollution or air pollution or air contamination is located shall compel compliance with the order in the same manner as with an order of that court. [Formerly 449.980]

**468.120 Public hearings; subpoenas, oaths, depositions.** (1) The Environmental Quality Commission, its members or a person designated by and acting for the commission may:

(a) Conduct public hearings.

(b) Issue subpoenas for the attendance of witnesses and the production of books, records and documents relating to matters before the commission.

(c) Administer oaths.

(d) Take or cause to be taken depositions and receive such pertinent and relevant proof as may be considered necessary or proper to carry out duties of the commission and Department of Environmental Quality pursuant to ORS 448.305, 454.010 to 454.040, 454.205 to 454.255, 454.505 to 454.535, 454.605 to 454.755 and ORS chapters 468, 468A and 468B.

(2) Subpoenas authorized by this section may be served by any person authorized by the person issuing the subpoena. Witnesses who are subpoenaed shall receive the fees and mileage provided in ORS 44.415 (2). [Formerly 449.048; 1989 c.980 §14b]

468.125 [Formerly 449.967; 1977 c.317 §2; 1983 c.703 §17; 1985 c.735 §3; 1987 c.741 §19; repealed by 1991 c.650 §8 (468.126 enacted in lieu of 468.125)]

**468.126 Advance notice.** (1) No civil penalty prescribed under ORS 468.140 shall be imposed for a violation of an air, water

or solid waste permit issued by the Department of Environmental Quality until the permittee has received five days' advance warning in writing from the department, specifying the violation and stating that a penalty will be imposed for the violation unless the permittee submits the following to the department in writing within five working days after receipt of the advance warning:

(a) A response certifying that the permitted facility is complying with applicable law;

(b) A proposal to bring the facility into compliance with applicable law that is acceptable to the department and that includes but is not limited to proposed compliance dates; or

(c) For a water quality permit violation, a request in writing to the department that the department follow the procedures prescribed under ORS 468B.032. Notwithstanding the requirement for a response to the department within five working days, the permittee may file a request under this paragraph within 20 days from the date of service of the notice.

(2) No advance notice shall be required under subsection (1) of this section if:

(a) The violation is intentional;

(b) The water or air violation would not normally occur for five consecutive days;

(c) The permittee has received prior advance warning of any violation of the permit within the 36 months immediately preceding the violation;

(d) The permittee is subject to the federal operating permit program under ORS 468A.300 to 468A.320 and violates any rule or standard adopted or permit or order issued under ORS chapter 468A and applicable to the permittee; or

(e) The requirement to provide such notice would disqualify a state program from federal approval or delegation. [1991 c.650 §9 (enacted in lieu of 468.125); 1993 c.790 §3; 1999 c.975 §4]

**468.130 Schedule of civil penalties; factors to be considered in imposing civil penalties.** (1) The Environmental Quality Commission shall adopt by rule a schedule or schedules establishing the amount of civil penalty that may be imposed for a particular violation. Except as provided in ORS 468.140 (3), no civil penalty shall exceed \$10,000 per day. Where the classification involves air pollution, the commission shall consult with the regional air quality control authorities before adopting any classification or schedule.

(2) In imposing a penalty pursuant to the schedule or schedules authorized by this sec-

tion, the commission and regional air quality control authorities shall consider the following factors:

(a) The past history of the person incurring a penalty in taking all feasible steps or procedures necessary or appropriate to correct any violation.

(b) Any prior violations of statutes, rules, orders and permits pertaining to water or air pollution or air contamination or solid waste disposal.

(c) The economic and financial conditions of the person incurring a penalty.

(d) The gravity and magnitude of the violation.

(e) Whether the violation was repeated or continuous.

(f) Whether the cause of the violation was an unavoidable accident, negligence or an intentional act.

(g) The violator's cooperativeness and efforts to correct the violation.

(h) Any relevant rule of the commission.

(3) The penalty imposed under this section may be remitted or mitigated upon such terms and conditions as the commission or regional authority considers proper and consistent with the public health and safety.

(4) The commission may by rule delegate to the Department of Environmental Quality, upon such conditions as deemed necessary, all or part of the authority of the commission provided in subsection (3) of this section to remit or mitigate civil penalties. [Formerly 449.970; 1977 c.317 §3; 1987 c.266 §2; 1991 c.650 §4]

**468.135 Imposition of civil penalties.**

(1) Any civil penalty under ORS 468.140 shall be imposed in the manner provided in ORS 183.090.

(2) All penalties recovered under ORS 468.140 shall be paid into the State Treasury and credited to the General Fund, or in the event the penalty is recovered by a regional air quality control authority, it shall be paid into the county treasury of the county in which the violation occurred. [Formerly 449.973; 1989 c.706 §17; 1991 c.650 §6; 1991 c.734 §37]

**468.140 Civil penalties for specified violations.** (1) In addition to any other penalty provided by law, any person who violates any of the following shall incur a civil penalty for each day of violation in the amount prescribed by the schedule adopted under ORS 468.130:

(a) The terms or conditions of any permit required or authorized by law and issued by the Department of Environmental Quality or a regional air quality control authority.

(b) Any provision of ORS 164.785, 448.305, 454.010 to 454.040, 454.205 to 454.255, 454.505

to 454.535, 454.605 to 454.755, ORS chapter 467 and ORS chapters 468, 468A and 468B.

(c) Any rule or standard or order of the Environmental Quality Commission adopted or issued pursuant to ORS 448.305, 454.010 to 454.040, 454.205 to 454.255, 454.505 to 454.535, 454.605 to 454.755, ORS chapter 467 and ORS chapters 468, 468A and 468B.

(d) Any term or condition of a variance granted by the commission or department pursuant to ORS 467.060.

(e) Any rule or standard or order of a regional authority adopted or issued under authority of ORS 468A.135.

(f) The financial assurance requirement under ORS 468B.390 and 468B.485 or any rule related to the financial assurance requirement under ORS 468B.390.

(2) Each day of violation under subsection (1) of this section constitutes a separate offense.

(3)(a) In addition to any other penalty provided by law, any person who intentionally or negligently causes or permits the discharge of oil into the waters of the state shall incur a civil penalty not to exceed the amount of \$20,000 for each violation.

(b) In addition to any other penalty provided by law, the following persons shall incur a civil penalty not to exceed the amount of \$10,000 for each day of violation:

(A) Any person who violates the terms or conditions of a permit authorizing waste discharge into the air or waters of the state.

(B) Any person who violates any law, rule, order or standard in ORS 448.305, 454.010 to 454.040, 454.205 to 454.255, 454.505 to 454.535, 454.605 to 454.755 and ORS chapters 468, 468A and 468B relating to air or water pollution.

(C) Any person who violates the provisions of a rule adopted or an order issued under ORS 459A.590.

(4) In addition to any other penalty provided by law, any person who violates the provisions of ORS 468B.130 shall incur a civil penalty not to exceed the amount of \$500 for each day of violation.

(5) Subsection (1)(c) and (e) of this section does not apply to violations of motor vehicle emission standards which are not violations of standards for control of noise emissions.

(6) Notwithstanding the limits of ORS 468.130 (1) and in addition to any other penalty provided by law, any person who intentionally or negligently causes or permits open field burning contrary to the provisions of ORS 468A.555 to 468A.620 and 468A.992, 476.380 and 478.960 shall be assessed by the

department a civil penalty of at least \$20 but not more than \$40 for each acre so burned. Any fines collected by the department pursuant to this subsection shall be deposited with the State Treasurer to the credit of the General Fund and shall be available for general governmental expense. As used in this subsection, "open field burning" does not include propane flaming of mint stubble. [Formerly 449.993; 1975 c.559 §14; 1977 c.511 §5; 1979 c.353 §1; 1987 c.513 §1; 1989 c.268 §4; 1989 c.1042 §7; 1991 c.764 §6; 1997 c.473 §1; 2001 c.688 §7]

## POLLUTION CONTROL FACILITIES TAX CREDIT

**468.150 Field sanitation and straw utilization and disposal methods as "pollution control facilities."** After alternative methods for field sanitation and straw utilization and disposal are approved by the Department of Environmental Quality, "pollution control facility," as defined in ORS 468.155, shall include such approved alternative methods and persons purchasing and utilizing such methods shall be eligible for the benefits allowed by ORS 468.155 to 468.190 and 468.962. [1975 c.559 §15; 1999 c.59 §136]

**Note:** 468.150 was enacted into law by the Legislative Assembly but was not added to or made a part of ORS chapter 468 or any series therein by legislative action. See Preface to Oregon Revised Statutes for further explanation.

**468.153 Legislative findings and declarations.** (1) The Legislative Assembly finds that the concept of environmental responsibility has matured beyond basic compliance with regulatory requirements to one in which citizens and businesses voluntarily implement innovative solutions to achieve shared environmental goals.

(2) The Legislative Assembly declares that a pollution control tax credit that shifts the majority of the incentive away from compensation for basic regulatory compliance and toward encouraging voluntary investment is an effective way to achieve environmental goals.

(3) The Legislative Assembly finds and declares that it is the policy of this state to promote sustainability and provide incentives for the voluntary prevention, elimination, reduction or control of air pollution, water pollution, solid waste and hazardous waste through the voluntary application of innovative solutions to achieve the environmental goals of this state.

(4) The Legislative Assembly declares it to be the policy of this state to promote social, economic and environmental principles of sustainability by providing incentives to individuals and businesses that support social, economic and environmental sustainability goals. [2001 c.928 §9]

Note: See note under 468.076.

**468.080 Applicability of Oregon law.**

The law to be applied in an action or other proceeding brought under ORS 468.076 to 468.087, including what constitutes "pollution," is the law of Oregon excluding Oregon's choice of law rules. Nothing in ORS 468.076 to 468.087 restricts the applicability of federal law in actions in which federal law is preemptive. Nothing in ORS 468.076 to 468.087 determines whether state law or federal law applies in any particular legal action. [1991 c.826 §5]

Note: See note under 468.076.

**468.081 Rights of injured person.** ORS

468.076 to 468.087 do not accord a person injured or threatened with injury in another jurisdiction any rights superior to those that the person would have if injured or threatened with injury in Oregon. [1991 c.826 §6]

Note: See note under 468.076.

**468.083 Right conferred under ORS 468.076 to 468.087 in addition to other rights.** The right provided in ORS 468.076 to 468.087 is in addition to, and not in derogation of, any other right. [1991 c.826 §7]

Note: See note under 468.076.

**468.085 Sovereign immunity defense.**

The defense of sovereign immunity is applicable in any action or other proceeding brought under ORS 468.076 to 468.087 only to the extent that it would apply to a person injured or threatened with injury in Oregon. [1991 c.826 §8]

Note: See note under 468.076.

**468.087 Application and construction of ORS 468.076 to 468.087.** ORS 468.076 to 468.087 shall be applied and construed to carry out the general purpose of ORS 468.076 to 468.089 to make uniform the law with respect to the subject of ORS 468.076 to 468.089 among the jurisdictions enacting it. [1991 c.826 §9]

Note: See note under 468.076.

**468.089 Short title.** ORS 468.076 to 468.087 shall be known and may be cited as the "Uniform Transboundary Pollution Reciprocal Access Act." [1991 c.826 §1]

Note: See note under 468.076.

## ENFORCEMENT

**468.090 Complaint procedure.** (1) In case any written substantiated complaint is filed with the Department of Environmental Quality which it has cause to believe, or in case the department itself has cause to believe, that any person is violating any rule or standard adopted by the Environmental Quality Commission or any permit issued by the department by causing or permitting wa-

ter pollution or air pollution or air contamination, the department shall cause an investigation thereof to be made. If it finds after such investigation that such a violation of any rule or standard of the commission or of any permit issued by the department exists, it shall by conference, conciliation and persuasion endeavor to eliminate the source or cause of the pollution or contamination which resulted in such violation.

(2) In case of failure to remedy the violation, the department shall commence enforcement proceedings pursuant to the procedures set forth in ORS 183.310 to 183.550 for a contested case and in ORS 468B.032. [Formerly 449.815; 1999 c.975 §3]

**468.095 Investigatory authority; entry on premises; status of records.** (1) The

Department of Environmental Quality shall have the power to enter upon and inspect, at any reasonable time, any public or private property, premises or place for the purpose of investigating either an actual or suspected source of water pollution or air pollution or air contamination or to ascertain compliance or noncompliance with any rule or standard adopted or order or permit issued pursuant to ORS 448.305, 454.010 to 454.040, 454.205 to 454.255, 454.505 to 454.535, 454.605 to 454.755 and ORS chapters 468, 468A and 468B. The Environmental Quality Commission shall also have access to any pertinent records relating to such property, including but not limited to blueprints, operation and maintenance records and logs, operating rules and procedures.

(2) Unless classified by the Director of the Department of Environmental Quality as confidential, any records, reports or information obtained under ORS 448.305, 454.010 to 454.040, 454.205 to 454.255, 454.505 to 454.535, 454.605 to 454.755 and ORS chapters 468, 468A and 468B shall be available to the public. Upon a showing satisfactory to the director by any person that records, reports or information, or particular parts thereof, other than emission data, if made public, would divulge a secret process, device or method of manufacturing or production entitled to protection as trade secrets of such person, the director shall classify such record, report or information, or particular part thereof, other than emission data, confidential and such confidential record, report or information, or particular part thereof, other than emission data, shall not be made a part of any public record or used in any public hearing unless it is determined by a circuit court that evidence thereof is necessary to the determination of an issue or issues being decided at a public hearing. [Formerly 449.169; 1975 c.173 §1]

**468.100 Enforcement procedures; powers of regional authorities; status of procedures.** (1) Whenever the Environmental Quality Commission has good cause to believe that any person is engaged or is about to engage in any acts or practices which constitute a violation of ORS 448.305, 454.010 to 454.040, 454.205 to 454.255, 454.505 to 454.535, 454.605 to 454.755 and ORS chapters 468, 468A and 468B, or any rule, standard or order adopted or entered pursuant thereto, or of any permit issued pursuant to ORS 448.305, 454.010 to 454.040, 454.205 to 454.255, 454.505 to 454.535, 454.605 to 454.755 and ORS chapters 468, 468A and 468B, the commission may institute actions or proceedings for legal or equitable remedies to enforce compliance thereto or to restrain further violations.

(2) The proceedings authorized by subsection (1) of this section may be instituted without the necessity of prior agency notice, hearing and order, or during said agency hearing if it has been initially commenced by the commission.

(3) A regional authority formed under ORS 468A.105 may exercise the same functions as are vested in the commission by this section insofar as such functions relate to air pollution control and are applicable to the conditions and situations of the territory within the regional authority. The regional authority shall carry out these functions in the manner provided for the commission to carry out the same functions.

(4) The provisions of this section are in addition to and not in substitution of any other civil or criminal enforcement provisions available to the commission or a regional authority. The provisions of this section shall not prevent the maintenance of actions for legal or equitable remedies relating to private or public nuisances brought by any other person, or by the state on relation of any person without prior order of the commission. [1973 c.826 §2; 1979 c.284 §153]

468.105 [Repealed by 1974 c.36 §28]

**468.110 Appeal; power of court to stay enforcement.** Any person adversely affected or aggrieved by any order of the Environmental Quality Commission may appeal from such order in accordance with the provisions of ORS 183.310 to 183.550. However, notwithstanding ORS 183.480 (3), relating to a stay of enforcement of an agency order and the giving of bond or other undertaking related thereto, any reviewing court before it may stay an order of the commission shall give due consideration to the public interest in the continued enforcement of the commission's order, and may take testimony thereon. [Formerly 449.090]

**468.115 Enforcement in cases of emergency.** (1) Whenever it appears to the Department of Environmental Quality that water pollution or air pollution or air contamination is presenting an imminent and substantial endangerment to the health of persons, at the direction of the Governor the department shall, without the necessity of prior administrative procedures or hearing, enter an order against the person or persons responsible for the pollution or contamination requiring the person or persons to cease and desist from the action causing the pollution or contamination. Such order shall be effective for a period not to exceed 10 days and may be renewed thereafter by order of the Governor.

(2) The state and local police shall cooperate in the enforcement of any order issued pursuant to subsection (1) of this section and shall require no further authority or warrant in executing and enforcing such an order.

(3) If any person fails to comply with an order issued pursuant to subsection (1) of this section, the circuit court in which the source of water pollution or air pollution or air contamination is located shall compel compliance with the order in the same manner as with an order of that court. [Formerly 449.980]

**468.120 Public hearings; subpoenas, oaths, depositions.** (1) The Environmental Quality Commission, its members or a person designated by and acting for the commission may:

(a) Conduct public hearings.

(b) Issue subpoenas for the attendance of witnesses and the production of books, records and documents relating to matters before the commission.

(c) Administer oaths.

(d) Take or cause to be taken depositions and receive such pertinent and relevant proof as may be considered necessary or proper to carry out duties of the commission and Department of Environmental Quality pursuant to ORS 448.305, 454.010 to 454.040, 454.205 to 454.255, 454.505 to 454.535, 454.605 to 454.755 and ORS chapters 468, 468A and 468B.

(2) Subpoenas authorized by this section may be served by any person authorized by the person issuing the subpoena. Witnesses who are subpoenaed shall receive the fees and mileage provided in ORS 44.415 (2). [Formerly 449.048; 1989 c.980 §14b]

468.125 [Formerly 449.967; 1977 c.317 §2; 1983 c.703 §17; 1985 c.735 §3; 1987 c.741 §19; repealed by 1991 c.650 §8 (468.126 enacted in lieu of 468.125)]

**468.126 Advance notice.** (1) No civil penalty prescribed under ORS 468.140 shall be imposed for a violation of an air, water

or solid waste permit issued by the Department of Environmental Quality until the permittee has received five days' advance warning in writing from the department, specifying the violation and stating that a penalty will be imposed for the violation unless the permittee submits the following to the department in writing within five working days after receipt of the advance warning:

(a) A response certifying that the permitted facility is complying with applicable law;

(b) A proposal to bring the facility into compliance with applicable law that is acceptable to the department and that includes but is not limited to proposed compliance dates; or

(c) For a water quality permit violation, a request in writing to the department that the department follow the procedures prescribed under ORS 468B.032. Notwithstanding the requirement for a response to the department within five working days, the permittee may file a request under this paragraph within 20 days from the date of service of the notice.

(2) No advance notice shall be required under subsection (1) of this section if:

(a) The violation is intentional;

(b) The water or air violation would not normally occur for five consecutive days;

(c) The permittee has received prior advance warning of any violation of the permit within the 36 months immediately preceding the violation;

(d) The permittee is subject to the federal operating permit program under ORS 468A.300 to 468A.320 and violates any rule or standard adopted or permit or order issued under ORS chapter 468A and applicable to the permittee; or

(e) The requirement to provide such notice would disqualify a state program from federal approval or delegation. [1991 c.650 §9 (enacted in lieu of 468.125); 1993 c.790 §3; 1999 c.975 §4]

**468.130 Schedule of civil penalties; factors to be considered in imposing civil penalties.** (1) The Environmental Quality Commission shall adopt by rule a schedule or schedules establishing the amount of civil penalty that may be imposed for a particular violation. Except as provided in ORS 468.140 (3), no civil penalty shall exceed \$10,000 per day. Where the classification involves air pollution, the commission shall consult with the regional air quality control authorities before adopting any classification or schedule.

(2) In imposing a penalty pursuant to the schedule or schedules authorized by this sec-

tion, the commission and regional air quality control authorities shall consider the following factors:

(a) The past history of the person incurring a penalty in taking all feasible steps or procedures necessary or appropriate to correct any violation.

(b) Any prior violations of statutes, rules, orders and permits pertaining to water or air pollution or air contamination or solid waste disposal.

(c) The economic and financial conditions of the person incurring a penalty.

(d) The gravity and magnitude of the violation.

(e) Whether the violation was repeated or continuous.

(f) Whether the cause of the violation was an unavoidable accident, negligence or an intentional act.

(g) The violator's cooperativeness and efforts to correct the violation.

(h) Any relevant rule of the commission.

(3) The penalty imposed under this section may be remitted or mitigated upon such terms and conditions as the commission or regional authority considers proper and consistent with the public health and safety.

(4) The commission may by rule delegate to the Department of Environmental Quality, upon such conditions as deemed necessary, all or part of the authority of the commission provided in subsection (3) of this section to remit or mitigate civil penalties. [Formerly 449.970; 1977 c.317 §3; 1987 c.266 §2; 1991 c.650 §4]

**468.135 Imposition of civil penalties.**

(1) Any civil penalty under ORS 468.140 shall be imposed in the manner provided in ORS 183.090.

(2) All penalties recovered under ORS 468.140 shall be paid into the State Treasury and credited to the General Fund, or in the event the penalty is recovered by a regional air quality control authority, it shall be paid into the county treasury of the county in which the violation occurred. [Formerly 449.973; 1989 c.706 §17; 1991 c.650 §6; 1991 c.734 §37]

**468.140 Civil penalties for specified violations.** (1) In addition to any other penalty provided by law, any person who violates any of the following shall incur a civil penalty for each day of violation in the amount prescribed by the schedule adopted under ORS 468.130:

(a) The terms or conditions of any permit required or authorized by law and issued by the Department of Environmental Quality or a regional air quality control authority.

(b) Any provision of ORS 164.785, 448.305, 454.010 to 454.040, 454.205 to 454.255, 454.505

to 454.535, 454.605 to 454.755, ORS chapter 467 and ORS chapters 468, 468A and 468B.

(c) Any rule or standard or order of the Environmental Quality Commission adopted or issued pursuant to ORS 448.305, 454.010 to 454.040, 454.205 to 454.255, 454.505 to 454.535, 454.605 to 454.755, ORS chapter 467 and ORS chapters 468, 468A and 468B.

(d) Any term or condition of a variance granted by the commission or department pursuant to ORS 467.060.

(e) Any rule or standard or order of a regional authority adopted or issued under authority of ORS 468A.135.

(f) The financial assurance requirement under ORS 468B.390 and 468B.485 or any rule related to the financial assurance requirement under ORS 468B.390.

(2) Each day of violation under subsection (1) of this section constitutes a separate offense.

(3)(a) In addition to any other penalty provided by law, any person who intentionally or negligently causes or permits the discharge of oil into the waters of the state shall incur a civil penalty not to exceed the amount of \$20,000 for each violation.

(b) In addition to any other penalty provided by law, the following persons shall incur a civil penalty not to exceed the amount of \$10,000 for each day of violation:

(A) Any person who violates the terms or conditions of a permit authorizing waste discharge into the air or waters of the state.

(B) Any person who violates any law, rule, order or standard in ORS 448.305, 454.010 to 454.040, 454.205 to 454.255, 454.505 to 454.535, 454.605 to 454.755 and ORS chapters 468, 468A and 468B relating to air or water pollution.

(C) Any person who violates the provisions of a rule adopted or an order issued under ORS 459A.590.

(4) In addition to any other penalty provided by law, any person who violates the provisions of ORS 468B.130 shall incur a civil penalty not to exceed the amount of \$500 for each day of violation.

(5) Subsection (1)(c) and (e) of this section does not apply to violations of motor vehicle emission standards which are not violations of standards for control of noise emissions.

(6) Notwithstanding the limits of ORS 468.130 (1) and in addition to any other penalty provided by law, any person who intentionally or negligently causes or permits open field burning contrary to the provisions of ORS 468A.555 to 468A.620 and 468A.992, 476.380 and 478.960 shall be assessed by the

department a civil penalty of at least \$20 but not more than \$40 for each acre so burned. Any fines collected by the department pursuant to this subsection shall be deposited with the State Treasurer to the credit of the General Fund and shall be available for general governmental expense. As used in this subsection, "open field burning" does not include propane flaming of mint stubble. [Formerly 449.993; 1975 c.559 §14; 1977 c.511 §5; 1979 c.353 §1; 1987 c.513 §1; 1989 c.268 §4; 1989 c.1042 §7; 1991 c.764 §6; 1997 c.473 §1; 2001 c.688 §7]

## POLLUTION CONTROL FACILITIES TAX CREDIT

**468.150 Field sanitation and straw utilization and disposal methods as "pollution control facilities."** After alternative methods for field sanitation and straw utilization and disposal are approved by the Department of Environmental Quality, "pollution control facility," as defined in ORS 468.155, shall include such approved alternative methods and persons purchasing and utilizing such methods shall be eligible for the benefits allowed by ORS 468.155 to 468.190 and 468.962. [1975 c.559 §15; 1999 c.59 §136]

**Note:** 468.150 was enacted into law by the Legislative Assembly but was not added to or made a part of ORS chapter 468 or any series therein by legislative action. See Preface to Oregon Revised Statutes for further explanation.

**468.153 Legislative findings and declarations.** (1) The Legislative Assembly finds that the concept of environmental responsibility has matured beyond basic compliance with regulatory requirements to one in which citizens and businesses voluntarily implement innovative solutions to achieve shared environmental goals.

(2) The Legislative Assembly declares that a pollution control tax credit that shifts the majority of the incentive away from compensation for basic regulatory compliance and toward encouraging voluntary investment is an effective way to achieve environmental goals.

(3) The Legislative Assembly finds and declares that it is the policy of this state to promote sustainability and provide incentives for the voluntary prevention, elimination, reduction or control of air pollution, water pollution, solid waste and hazardous waste through the voluntary application of innovative solutions to achieve the environmental goals of this state.

(4) The Legislative Assembly declares it to be the policy of this state to promote social, economic and environmental principles of sustainability by providing incentives to individuals and businesses that support social, economic and environmental sustainability goals. [2001 c.928 §9]



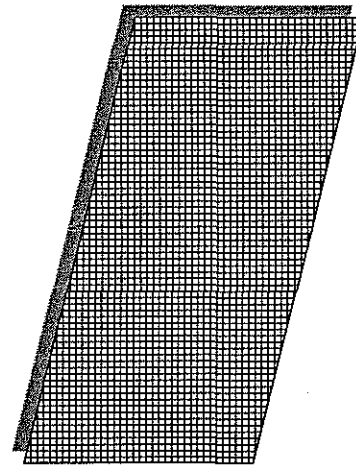
# From Discovery to Compliance Assistance or Enforcement-

*What goes into determining who DEQ addresses and how?*



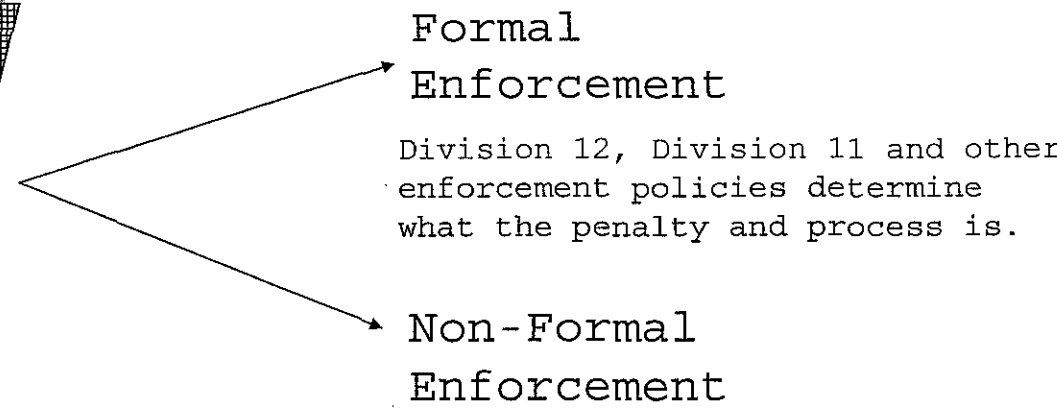
What determines who we inspect or visit in the first place?

- Priority Sectors
- Program Priorities
- Priority Complaints
- Other?



## Enforcement Guidance

Provides the filter to determine who goes on to formal enforcement. Includes notice of non-compliance response language.



## Formal Enforcement

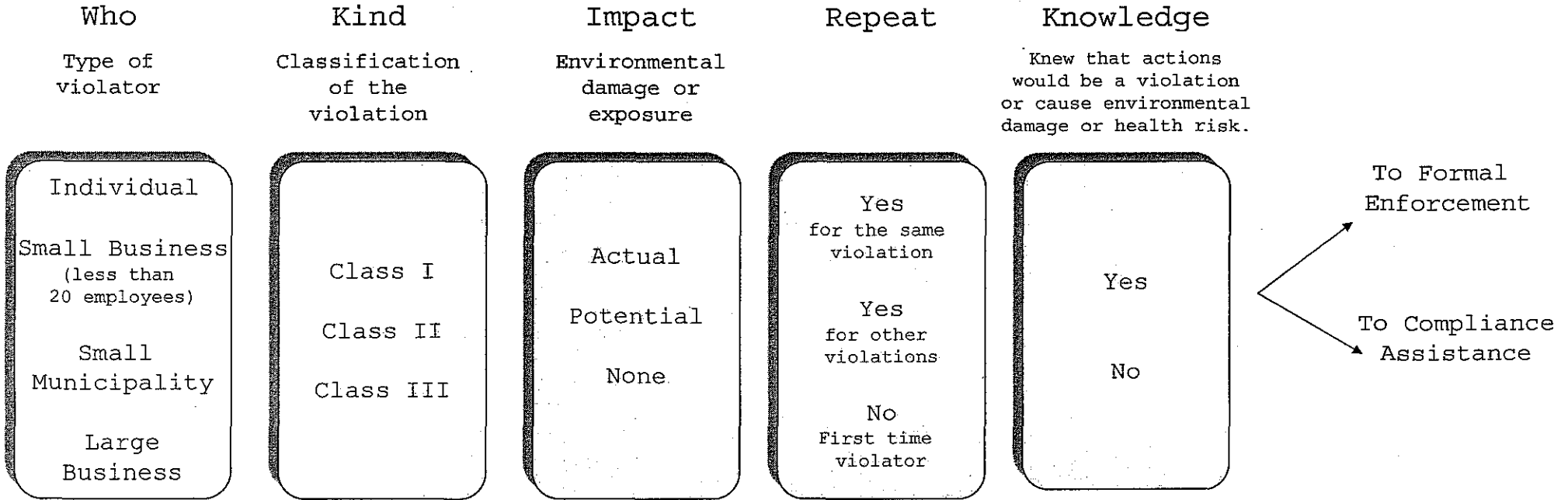
Division 12, Division 11 and other enforcement policies determine what the penalty and process is.

## Non-Formal Enforcement

*What happens varies by program:*

- Technical assistance
- Notices of non-compliance w/ compliance schedules
- Other?

# Potential Enforcement Guidance Filter Factors



ATTACHMENT

E

**DEPARTMENT OF ENVIRONMENTAL QUALITY  
Office of Compliance and Enforcement**

**ENFORCEMENT GUIDANCE**

**For Field Staff**

***Draft - May 2002***

[date]

Date: \_\_, 2000

**To:** Regional and Division Administrators, Managers, and Staff  
**From:** Stephanie Hallock, Director  
**Subject:** Enforcement Guidance

The Department's Internal Management Directive *entitled "Enforcement Guidance for Field Staff, 2002"* is attached as revised according to suggestions submitted by the Division Administrators, Program Management Teams, and other interested staff. This Directive supersedes all previous versions.

A credible and visible enforcement program is necessary to persuade people to avoid the violations in the first place and to convince them to take advantage of the non-enforcement educational and technical assistance projects DEQ offers. The *Guidance* is designed to ensure statewide consistency of our actions by directing staff to focus the agency's enforcement resources on the most important violations and violators. Therefore, I direct all DEQ personnel to follow this *Guidance*. Thank you.

---

Stephanie Hallock  
Director

# ENFORCEMENT GUIDANCE

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- A. Example Affidavit
- B. Examples of the Guidance
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- E. Air Quality High-Priority Violator Policy
- F. Summary of Environmental Crimes Statutes
- G. Supplemental Environmental Policy



## I. INTRODUCTION

The Department of Environmental Quality administers state statutes and rules designed to preserve and improve the ecological integrity of the State's land, water and air. These laws govern how the State's people and businesses may dispose of wastes to minimize the effects of pollution. The Department, in serving the public interest, has emphasized education and technical assistance about pollution prevention, recycling and compliance requirements to alert the regulated community about proper management of wastes. However, alternative compliance-assistance approaches are only effective when used as part of an integrated strategy that includes a strong compliance-monitoring and enforcement presence. Enforcement is a necessary part of a regulatory strategy because:

- **The environmental problem must be corrected** – Enforcement enables DEQ to compel compliance and cleanup through legally binding processes as needed.
- **Some facilities need motivation to reach voluntary compliance** – Some people procrastinate in figuring out what they need do to reach compliance. When they hear about a penalty or other enforcement action, they are more likely to make a voluntary effort.
- **Some people are driven by the financial bottom line** – Risk of penalties and negative publicity enter into the risk-analysis and bean-counting that people and businesses perform, create “ general deterrence,” and tip the cost/benefit scale toward compliance.
- **Compliance must be fair** – Facilities who spend money on pollutant-control equipment or other compliance should reasonably expect that DEQ will protect their investment by ensuring that no other facility benefits by avoiding those costs.

Enforcement should be applied in a fair and predictable manner. The circumstances and facts of each case will differ, but there are principles we can use to reach consistency. This *Guidance* is designed to assist in that process. Some material is based on classifications developed through a public rulemaking process, the remainder has been subject to comment and review by staff and management from all regions and programs within DEQ. The director considered the public and staff comments in adopting this internal management directive. The purpose of this document and the information contained is solely to guide employees of DEQ in determining what enforcement action should be taken and what information should be included in the Notice of Noncompliance. It does not constitute rulemaking by the Environmental Quality Commission and may not be relied upon to create a right or benefit, substantive or procedural, enforceable by law or in equity, by any person. The Department may take action at variance with this directive.

The *Guidance* begins with some information on gaining access to conduct inspections and some tips on documenting violations. It then reviews which violations should lead to enforcement, how to draft the Notice of Noncompliance, how to make a referral, and concludes with information about follow-up formal enforcement.

## II. ACCESS FOR INSPECTION

### A. STATUTORY AUTHORITY

DEQ has broad statutory authority to conduct administrative searches to determine compliance with environmental laws. For example, authority for inspections of air quality, water quality, and on-site sewage is given by Oregon Revised Statute (ORS) 468.095 which states:

*The department shall have the power to enter upon and inspect, at any reasonable time, any public or private property, premise or place for the purpose of investigating either an actual or suspected source of water pollution or air pollution or air contamination or to ascertain compliance or noncompliance with any rule or standard or order or permit . . . .*

Similar provisions are provided by ORS 459.385 for solid and hazardous waste and ORS 466.805 for underground storage tanks. In addition, most DEQ permits contain language that confers authority to access for inspection.

### B. WHEN A SEARCH WARRANT IS NEEDED

Although those statutes give DEQ inspectors authority to conduct inspections, the U.S. and Oregon Constitutions allow a person to deny that access. This means two things. First, denial of access is not generally a violation for which DEQ can generally assess a penalty,<sup>1</sup> although it is a factor you could consider in deciding whether to refer related violations for enforcement. Second, you likely can do the inspection, but may need to obtain a search warrant first. An inspector does not need a warrant in most circumstances including:

1. areas open to public access (*e.g.*, parks, roads, office reception areas, shopping centers);
2. when an immediate response is necessary to protect public health or the environment (*e.g.*, spill of hazardous material, dangerous emissions); or
3. areas outside the "*curtilege*" where access has not been denied or where the inspector has an "objectively reasonable" belief that entry is permitted.
4. when the person gives consent to the inspection

Paragraph 3 is where all the difficult questions of access arise. "Curtilege" includes (a) the area immediately surrounding a person's dwelling where the person has an expectation of privacy and (b) other property on which the resident has overtly manifested an interest in privacy. The law on curtilege is complicated and evolving, but it is based on a common-sense.

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<sup>1</sup> Two important exceptions are that the permit conditions requiring access are enforceable and ORS 466.195(2) requires the person to give you reasonable access to hazardous waste documentation.

First, think of the areas that you, as a homeowner, would not expect a strange person to be tromping around without asking you first: in your kitchen, in your garage, in your back yard. If the area you want to inspect is around someone's dwelling, you must either get consent for the inspection or a search warrant.

Second, if it isn't right around the person's dwelling, you can do the inspection unless the person shows intent to have it be private? The law does not expect you to be a mind reader and the person must do something to give notice. Has the person taken reasonable steps to put you on notice – erected a barrier or fence, placed signs or the like in a location where their intent is clear. If you think the person intended to deny access, you need to obtain consent or a search warrant.

Although these issues seldom come up because inspectors use good judgment and most people give consent for inspection, it is important that we, as representatives of the Government, try to honor citizen constitutional rights.<sup>2</sup> If you have questions about whether you may conduct any particular search, you should contact the Attorney General's office. Below are some questions that commonly arise:

*Can you walk up to the front door of a residence to ask to look at the septic system in the back yard?* Generally, yes because there is implied consent to approach the front door of a home and even side doors that look like the main door. However, a resident could undo the implied consent by taking overt actions like erected barriers to entry, such as fences, or by posting signs.

*Can you walk up to the front door of a residence to ask to look at the septic system if the front walkway is overgrown and blocked by trees and shrubs?* Yes, this would not be an overtly erected barrier that indicates a intent for privacy.

*Can you walk around to the back yard of a residence where no one is home to see if the septic system is failing?* Probably not. The backyard is likely curtilage because it is the area immediately around the house where a person would have an expectation of privacy, especially when surrounded by a fence. Get consent or a warrant.

*Can you walk around to the back yard of a residence when no one answers the door but you know the failing septic system is a public health hazard?* Probably not. Exception 2 above allows warrantless inspection in cases of emergency or hazard to public health, but only if there is an *immediate* need to get access such that there is no time to get a search warrant.

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<sup>2</sup> Furthermore, possible consequences of violating these constitutional rights include: (1) we would not be able to use the evidence illegally collected, (2) illegal search can create a tort lawsuit against the state, (3) you could be personally liable in money damages for trespass, face disciplinary action, or criminal prosecution. While these are retaliatory suits are unlikely, they have happened in Oregon.

This would apply in cases of explosive gases, fire and the like, but a failing septic system could wait a few hours to be addressed. Since the backyard is likely curtilage you'd need consent or a warrant.

*Can you look at a resident's septic tank by walking around on the neighbor's property and looking over the property line?* – Yes, as long as neighbor consents you will have avoided trespass at the neighbor's. And, the resident has no claim because you are not in the resident's curtilage.

*Can you walk past posted signs that say "No Hunting"?* Yes. "No hunting" means you are not permitted to hunt, not that you are denied access. Note that a "No Trespassing" sign would likely mean you are denied access.

## C. OBTAINING A SEARCH WARRANT

### 1. Administrative Warrant

If you are unable to conduct the inspection because you don't have consent to inspect in the curtilage or you are denied access elsewhere, you will need to obtain an administrative search warrant. In theory, obtaining an administrative warrant should be easy because our proof of need is very low. The judge should grant the warrant if either (1) you are conducting a permit compliance inspection or (2) you are responding to a complaint and therefore have reason to believe a violation has taken place. You will need the help of the Oregon State Police, District Attorney's Office, or the Attorney General's office to help you edit and prepare the affidavit, and to present your affidavit to a Judge along with a draft warrant. There is no defined format for the affidavit, but an example is provided at Appendix \_\_. The affidavit should answer the following with as much particularity as possible:

- (1) State who you are, your job, your education, your experience, your expertise and knowledge in the field.
- (2) State all relevant time frames: when you got your information, over what period of time the activity occurred, whether this was a single occurrence or continuous activity, that it is likely that the thing you want to search for is still going to be there.
- (3) State how the information in the affidavit was obtained.
- (4) Show that either you have a reasonable belief that a violation has been committed or that there are reasonable statutory or administrative standards for targeting that facility for inspection.
- (5) Name the person from whom you got the information if possible.
- (6) Explain your efforts to obtain consent or access.
- (7) Include all the facts you know, with a past history of environmental violations where applicable.
- (8) Describe the type of property involved (e.g., residential, business, open to public, posted),

- (9) Describe with particularity the location to be searched and things that you have reason to believe you will find.

## **2. Criminal Search Warrant**

If DEQ's Environmental Crimes Coordination Team determines that a criminal investigation is appropriate, you may be involved in obtaining a criminal search warrant. In obtaining a criminal search warrant you may be asked to draft an affidavit to describe your observations, the reasons why a search warrant is necessary, the laws governing the conduct, the laws authorizing the search warrant, the place to be searched, and the things sought in the search. That affidavit will be similar to the one prepared for an administrative search as above. The criminal investigator or the District Attorney will present your affidavit to a judge. The judge will issue the criminal search warrant if the judge finds that probable cause to believe that a crime is being or has been committed. A much higher burden proof showing probable cause must be satisfied in obtaining a criminal search warrant than a civil administrative search warrant.

## **II. DOCUMENTING AND CITING VIOLATIONS**

### **A. ELEMENTS OF VIOLATION**

In determining that a violation has occurred, DEQ must show that the each element of the violation is likely true. By "element" we mean each segment of text of the rule or law on which DEQ would have to put on evidence at a hearing that together, if each were true, would show the violation occurred. For example: ORS 468B.025(1) states: "[Except if the person has a DEQ permit allowing it], no person shall discharge any wastes into waters of the state if the discharge reduces the quality of the waters below the water quality standards . . . ." If we found someone discharging muddy water and we wanted to prove this violation against them, we would have to prove that each of the following "elements" of ORS 468B.025(1) is likely true:

- i. The person does not have a permit allowing this discharge.
- ii. The one doing the discharge is a "person."
- iii. The action was a "discharge."
- iv. The muddy water was a "waste."
- v. The place where the muddy water was discharged is "waters of the state."
- vi. The discharge reduced the water below water quality standards.

Some of the elements are easy to prove, for example, "person" is defined at 468.005(5) and includes individuals and businesses. Some of the elements may be legally complicated, for example "waste" is defined at ORS 468B.005(7) and refers to substances that cause "pollution" which is further defined at ORS 468B.005(3). Some of the elements may require sampling, for example, showing that the discharge reduced waters below standards might be best done by taking samples above and below the discharge. If we are unable to prove that each and every one of these elements is likely true, we can not show that a violation has occurred.

## B. EVIDENCE

### 1. Types of Evidence

**Sample** results are often necessary to show that a violation occurred. For example, in asbestos cases, we will have to prove that the material was asbestos; in hazardous waste cases, we need to show that the waste is “hazardous waste.” Samples should be taken according to the most recent version of the DEQ LABORATORY FIELD SAMPLING REFERENCE GUIDE,<sup>3</sup> which contains the Department’s protocol for collecting samples. The Laboratory maintains an information line at 503-229-5983 to answer additional questions. Particular care should be taken to collect, store and analyze the samples according to the established protocols. Failure to follow sampling protocols correctly may make us lose a case by raising an issue of DEQ credibility with the hearing officer in an enforcement case, and may create reasonable doubt for a jury in a criminal case. The samples themselves will rarely be brought into the hearing to be used as evidence in administrative enforcement, though they are often admitted in criminal cases to illustrate chain of custody.

**Observations and eyewitness testimony** are excellent evidence because they describe what you saw, smelled, heard or touched (there should be few DEQ cases where you are testifying as to what you tasted). The biggest problem with observation evidence is that months will have passed between the time you perceived the event and the time you testify about it. Not only will you forget some of the details, but also you may remember them differently. For these reasons, the best way to preserve your first-hand observations for future recall is to document them in one of the manners described below.

**Photos** taken with regular cameras or digitally are one of the very best ways to document identified violations because they are tangible illustrations of your observations, which can be used at follow-up meetings with the facility, and at hearing. It’s not important that you actually took the picture as long as you recognize what’s in it. If a source refuses to allow you to take photos, you have several choices. You may:

- take photos from off the property looking into the property.
- tell the source you will not do the inspection under those circumstances, that you consider this a denial of access, and you will seek a search warrant that would let you take pictures during the inspection. Perhaps the source will revoke the refusal.
- get an administrative search warrant.
- proceed without pictures if this is consistent with your Program and Division policies.
- If source does not want you to take pictures because of a concern about trade secrets, you may get around the refusal by having them help you frame the pictures you need without capturing confidential images.

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<sup>3</sup> As of spring 2002 the most recent version is Version 6.0 (new update expected soon) which is available in the Laboratory’s DEQ Q-net pages.

*Inspection reports, diagrams, emails, memos and NONs* can be valuable evidence when they describe things you perceived. Be sure these documents contain the important details. This is crucial for three reasons. First, they store the details of your observations where they can't be forgotten. Second, they let Enforcement staff know the extent of the evidence as they put together the formal enforcement case. Last, in the event that Enforcement would later need your testimony about what you perceived but you are not available, we may be able to use this document as evidence itself in your absence. For this reason, write clearly and try to use "active voice" instead of "passive voice." An example of passive voice is: "*It was admitted that the drum contained hazardous waste.*" From this sentence, I don't know who admitted it, whether that person knew what he or she was talking about, or even who heard the admission. This statement in a document would be utterly useless as evidence. Compare that to "*During the inspection, John Smith told me he knew the drum contained hazardous waste because it contained a lot of benzene.*" In this case I know who said it, why he knew, and to whom he said it. Also, be clear in your descriptions of how you reached your conclusions – use the words "because" and "therefore" often.

## **2. Confidential Documents**

The general rule is that DEQ's records are public record, not confidential, and must be disclosed and released to the public upon request. Below are the more important exceptions to the general rule. Documents that are possibly exempt from disclosure should be clearly marked and kept separate from other documents. When transferring information you believe should be kept confidential, mark or tag the document in some way indicating the need to keep the document confidential. Enforcement staff will keep all such information confidential, if permitted by the Public Records law. However, when petitioned by a person seeking review of a record the Attorney General's office will decide for itself whether the law requires the record must be released.

***Confidential complaint forms and other material submitted by someone with an expectation that DEQ will keep it confidential*** – Sometimes citizens who lodge pollution complaints with regional offices request that DEQ keep their identities confidential. DEQ may keep a complainant's identity confidential if the document meets all of the following:

- The information was submitted in confidence (*e.g.*, the complainant requests his or her identity to be kept confidential);
- The information can reasonably be considered confidential (*e.g.*, the information is not already publicly available);
- The information was not required by law to be submitted;
- The agency has obligated itself in good faith not to disclose the information (*e.g.*, the DEQ staff person asks the complainant whether they want their identity to be kept confidential; and
- The public interest would suffer from the disclosure (*e.g.*, people would be discouraged from reporting if they thought their identity would be made public)

DEQ can support its burden of showing the information should be kept confidential by asking complainants if they want their identify to remain confidential and indicating this on the complaint form. If DEQ later needs to use the complaint form at a contested case hearing or otherwise in an enforcement action, we can black out the identity of the complainant or other identifying information. It is important that DEQ retain the information including identifying information, which it has promised to keep confidential. State Archives law requires that all documents regarding legal actions taken against violators be kept by the agency for ten years after final disposition of the case. In addition, Office of Compliance and Enforcement staff may need to contact the informant. Sometimes an informant's testimony would be helpful at a contested-case hearing, and the informant may later be willing to waive confidentiality. DEQ may be required to disclose the information later if the Attorney General's office determines that the information is not exempt from disclosure.

*Attorney/client privilege* – Communications between DEQ and the Oregon Attorney General's office or Department of Justice are confidential.

*Home addresses and phone numbers* – If the person demonstrates that public disclosure would endanger her safety or the safety of a family member living with her, the home address and phone number must be kept confidential.

*Federal exemptions* – Records for which there is a specific federal exemption from public records disclosure are also exempt under Oregon law.

*Internal advisory* – [WAITING FOR FINAL ADVICE FROM AG ON THIS] Internal advisory communications within or between agencies are possibly confidential if all of the following apply:

- The communication is within or between public bodies.
- It is of an advisory nature preliminary to any final agency decision;
- It covers other than purely factual matter; and
- the public interest in encouraging frank communication clearly outweighs the public interest in disclosure.

Be aware that most of the work we do is not confidential and will not fit under this exemption. You should keep documents fitting this profile confidential but be aware that the Attorney General's office may not agree and may require that the document be disclosed. It may be tempting to try to use this exemption to "hide" documents that say regrettable things, but the AG will not likely agree. **Think before you write and do not create unnecessary regrettable documents.**

*Documents prepared for litigation or criminal investigation* – This applies to documents prepared for a court proceeding or documents prepared under direction of a criminal investigator or prosecutor. It does not apply to our normal administrative enforcement actions, which are not "litigation." It also does not apply to documents prepared for some other reason that subsequently become relevant to litigation or criminal investigation. Keep all these



documents confidential until they are reviewed on an individual basis by our attorney, criminal investigator, or prosecutor.

*Trade secrets* – These records may be kept confidential if the public interest in confidentiality outweighs the interest in disclosure and the information they contain meets all of the following:

- it is not be patented
- it is known only to certain individuals within an organization and used in the business that the organization conducts;
- it has actual or potential commercial value; and
- disclosure of the information would give a business advantage over competitors.

*Other possible exemptions, including business records used to determine fees or assessments* may apply in cases where the public interest in keeping the records private is greater than its interest in disclosure. For more information on applicability of other exceptions, contact the Office of Compliance and Enforcement or the Assistant Attorney General assigned to your program.

### C. CHAIN OF CUSTODY

Samples must be taken in a way that ensures statistical and legal confidence in the conclusions reached as a result of sample analysis. Important considerations include: location of sampling site, sampling containers, proper duplication for statistical analysis, method(s) of analysis, and chain of custody. Chain of custody is especially important in criminal cases because an alleged violator will often claim that the wrong samples got to the laboratory, that someone tampered with the samples, or that the lab got the samples confused with other samples or accidentally contaminated them. While these are not strong defenses in a civil case so long as we have kept adequate track of the samples, they can create doubt that injures a criminal case. For cases destined solely for civil enforcement, use the Lab's Second Custody Level procedures to have the samples analyzed and chain of custody recorded. For cases that may be or are being reviewed for possible criminal prosecution, use the Lab's Third Custody Level to have the samples analyzed, custody meticulously recorded, and stored securely for an indefinite period.

## IV. DRAFTING A NOTICE OF NONCOMPLIANCE

Once you have collected your evidence and reviewed it to make sure that you can prove each element (*see* section II.A.1 above), you will draft a Notice of Noncompliance (NON). Pursuant to Oregon Administrative Rule (OAR) 340-012-0041, the Department must issue a Notice of Noncompliance (NON) for each documented violation regardless of its relative significance or environmental impact. Because the rule only requires that a NON be issued if it has been "documented," DEQ need not issue NONs for unknown possible violations alleged in unverified complaints or other such sources. A NON is not a formal contestable document and therefore does not include any penalty or appealable order. However, some NONs will lead to a penalty or

order. NON's are issued by regional or program staff and should accomplish the following four objectives:

- (A) accurately describe the violation and the statute or rule violated,
- (B) explain the environmental consequences of the violation,
- (C) inform the violator what needs to be done to correct the violation, and
- (D) inform the violator of the possible enforcement consequences of the violation.

The guidance below gives some information about what to include in the NON and suggests some language that might be helpful. However, as the author of the NON and compliance expert on the facility, you should edit the suggested language as necessary to fit the circumstances

#### **A. DESCRIBE THE VIOLATION AND THE STATUTE OR RULE VIOLATED**

Cite all the documented violations for which you have sufficient information and which are not duplicative or cascading as described below. In deciding whether to cite a particular violation in an NON, be firm, factual, objective and fair. Although a recipient of a NON has no due process rights to challenge the findings you make, you should not cite violations carelessly. First, NONs can make the wrongful behavior seem worse than it really was, which can affect a recipient's credit and insurance, and cause unnecessary grief for the facility's environmental staff. Second your NON will likely become the basis for follow-up enforcement and often results in a need to track the recipient's steps towards compliance. Erroneous, duplicative or cascading violations will make it more difficult to track the recipient's return to compliance with DEQ databases. One way to organize your NON would be to enumerate the primary violations citing the duplicative laws and explaining the cascading violations in unnumbered subtext.

##### ***1. Avoid Citing Violations For Which You Have Insufficient information***

If you believe you have sufficient information that *more likely than not* the documented violation did occur, cite the violation by reciting the wrongful conduct. Also, explain how the conduct violated the law and inform the recipient of the violation Class and whether it is being referred for enforcement, as described below.

This does not mean you should not address potential violations that may have occurred but for which you do not have sufficient information. The best way to address potential violations may be to explain the facts you do know, explain what additional information you need, ask for the additional information, and inform the recipient that an additional NON may be issued if the DEQ discovers additional violations.

##### ***2. Avoid Citing Duplicative and Cascading Violations***

Avoid duplicative violations – those where the *exact same conduct* violated more than one legal citation.

*e.g.*, A permitted source discharged a pollutant not specifically addressed in its permit. This may have violated ORS 468B.025(1)(a) (“causing pollution”); ORS 468B.025(2) (“violating a permit”), or ORS 468B.050(1)(a) (“discharging without a permit”). If the discharge also violated water quality standards, that would be a second violation because it is not the exact same conduct – it would be illegal discharge plus discharging sufficiently high amounts of pollutants to cause the violation of standards.

*e.g.*, A generator stores hazardous waste for more than the time allowed. This could be described as violating OAR 340-100-0002 adopting 40 CFR 262.34 (“exceeding accumulating time”) or ORS 466.095 (“operating an illegal hazardous waste storage facility”).

Avoid citing “cascading” violations – those where a second violation *necessarily* follows from the first.

*e.g.*, If a permitted source did not properly conduct the monitoring tests, it necessarily will not have properly recorded the monitoring data.

## **B. EXPLAIN THE ENVIRONMENTAL CONSEQUENCES**

Use the NON as an educational tool – remember that, at this point in the process you have a captive audience. Violators are more likely to be cooperative and less critical of DEQ if they understand the environmental consequences of the violations.

### ***1. Environmental Consequences***

Your explanation may be different for each situation, and you should use your technical expertise and common sense to draft an appropriate explanation that fits the facts. Below are some examples of wording:

Yard debris burning in Portland – Open burning in the Portland area produces unnecessary smoke, and is the source of approximately 600 complaints filed each year with the Northwest Region Office. While your fire may not seem to have caused a problem, it contributes to the cumulative impact of numerous illegal open burns. Because open burning produces unnecessary localized nuisances, we need your support to reduce air pollution associated with open burning.

Open burning of prohibited materials – The open burning of rubber and plastics creates smoke and noxious odors, which are a nuisance and possible health hazard for the young, the elderly, and those with lung disease. In some instances, toxic levels of chemical exposure can result from open burning of these materials.

Violation of VOC limitations in air permit – VOCs produce ozone which can cause property damage and health problems. Ozone has been a problematic air contaminant for the City of Portland, and the City is working hard to maintain federal health standards for this pollutant.

Failure to obtain asbestos license – The work being done at this address could have released asbestos fibers into the air and exposed workers and the public to asbestos. Asbestos fibers are a respiratory hazard proven to cause lung cancer, mesothelioma, and asbestosis. Asbestos is a danger to public health and a hazardous air contaminant for which there is no known safe level of exposure. To protect the public from asbestos exposure, the Department requires training and licensing for those who handle asbestos-containing material. These worker certification and licensing requirements are intended to safeguard the public and environment from asbestos exposure resulting from the mishandling of asbestos-containing material.

Unpermitted Rock-Crushing – Rock Crushers emit particulate matter. Particulate matter is an air pollutant and contributes to respiratory distress in members of the public. The Department regulates particulate emissions through the permitting process. When a source of air pollution operates without a permit, it has avoided regulation and gained an economic advantage its competitors do not enjoy. The Department strives to treat equitably all facilities subject to its rules.

Discharge of diesel – The discharged fuel oil drew citizen complaints, and may have caused damage to aquatic life in the river and to terrestrial animals that depend on the river. The Department is concerned with the adverse impact and cumulative effects numerous spills of this kind have on Oregon's water quality.

Spill of fuel oil – The spilled oil created a nuisance, and residents of the area telephoned 911 and DEQ to complain of the gasoline stench. The day after the spill, DEQ inspectors were able to see an oil sheen on the water and smell the odor of the fuel four miles downstream. When inhaled or absorbed through the skin, fuel oils can cause headaches, dizziness, and more severe health problems. Furthermore, the estimated concentration of the oil in the creek exceeded the concentration considered acutely toxic to aquatic organisms and therefore the spill may have damaged the aquatic life and ecosystem in the creek.

Dumping paint waste -- There is much public concern about water-quality degradation in Amazon Creek. Although signs to prohibit dumping have been placed on many storm drains, and although the City of Eugene and its citizens have been involved in public education concerning the environmental impacts of dumping into the stream via the storm drains, dumping continues to be a problem. The paint waste you dumped into the storm drain flowed into the creek, and may have adversely affected fish and other aquatic organisms as well as waterfowl and other animals that use Amazon Creek for drinking water. The Department recognizes that most spills will adversely affect the environment to some degree, and is concerned with the effects of cumulative small spills in degrading water quality and the environment.

Failure to properly handle lead-contaminated soil – This soil is toxic and contains lead in concentrations over 30 times greater than the regulatory level considered acceptably safe. Department inspectors saw that the soil pile was uncovered, and witnesses reported seeing lead-contaminated dust blowing from the pile. This is of special concern to the Department because

the most important source of human exposure to lead is absorption through the lungs from airborne contamination, and because exposure to lead has been shown to cause brain dysfunction, especially in the very young. Because of the potential dangers to the environment and human health, the Department regulates the manner in which lead is handled. You failed to handle your lead-contaminated soil in a manner considered safe under the Department rules.

## 2. *Pollution Prevention*

The following language (or a variation) encouraging pollution prevention may be inserted in appropriate NONs to businesses or industries after the section(s) describing violations:

*This NON does not require you to implement Pollution Prevention. However, the Department strongly recommends that you consider Pollution Prevention options, where applicable, to prevent the violation(s) outlined in this notice from recurring. Pollution Prevention may also enable you to reduce environmentally driven costs, reduce operating costs, and reduce the regulatory requirements and fees applied to your firm.*

*You may accomplish Pollution Prevention by:*

- *Increasing process efficiency*
- *Reducing energy, chemical or other raw material use*
- *Reducing the quantity or toxicity of pollutants, discharges, emissions, or wastes*

Language on specific pollution prevention opportunities identified during the inspection may be inserted here, if appropriate. For Example:

*While inspecting your facility, Department personnel observed potential pollution prevention opportunities associated with your \_\_\_\_ [insert type] operation(s). Pollution prevention options you may want to evaluate for this (these) operation(s) include, but are not limited to, \_\_\_\_ [insert options]. It is also possible that implementation of pollution prevention options may correct violations associated with your \_\_\_\_ [insert type] operation(s). Tracking annual usage of toxic substances or other input materials, if you are not already doing so, may lead to identification of additional pollution prevention opportunities.*

*In your response, the Department would appreciate a description of any steps you take to correct the violations through Pollution Prevention. For further information on Pollution Prevention, please refer to the enclosed flyer.*

**Note:** Send a copy of all NONs that contain P2 language to the Pollution Prevention Manager at the Director's Office.

For NONs issued to individuals, send along a Public Affairs brochure entitled *POLLUTION PREVENTION BEGINS AT HOME*. These brochures should be available in each DEQ office and may also be obtained from the DEQ Public Affairs Office, 811 S.W. 6th Avenue, Portland, OR 97204.

### **C. INFORM THE VIOLATOR WHAT NEEDS TO BE DONE TO CORRECT THE VIOLATION**

The NON is an opportunity to establish in writing what you reasonably expect the violator to do to remediate or mitigate the effects of the violation and to come into compliance. Note that the NON can not “order” anyone to do anything, but you can use the NON as a warning and request for action. Think about the various alternatives the violator may have in reaching compliance and don’t try to *require* them to go in a certain direction if the law gives them alternatives to compliance.

Enforcement will try to support your NON efforts by incorporating your NON requests into a Department Order. While our order is strongest if it reiterates the same steps you requested in the NON, we will only be able to issue orders that are within DEQ’s authority.

### **D. DETERMINING WHETHER TO REFER FOR FORMAL ENFORCEMENT**

#### ***1. Using the Guidance Tables***

If any one violation in the NON is referred for formal enforcement, you must refer all of them. This does not mean that each will necessarily be formally cited in the formal action or that each will carry a penalty. The Tables listed in this section, will indicate whether you should refer violations and what information you should include about enforcement in the NON. Follow these steps:<sup>4</sup>

1. Find the “Class” of the violation in the Tables listed below. The Class indicates the relative significance of the rule or statute violated to the regulatory program or the environment. Each possible violation of any of DEQ’s statutes and rules is classified in lists adopted into DEQ’s rules. Class I violations are the most important, most likely to be referred and will generally carry the highest penalties. Class III violations are the least important and least likely to be referred. The Division 12 rules establishing the Classes are reproduced in this *Guidance*, and found in this section below.
2. To the left of each Class are one or more columns of letters (*i.e.*, A, B, A/B<sup>n</sup>, a/b, C, D, E, or F). Find the letter in the applicable column. As more fully described below, this letter corresponds to information about what enforcement response should be taken and draft language you should include in the NON.

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<sup>4</sup> Two examples of using the Guidance are attached as Appendix \_\_\_.

- "A" is the response for violations that are being referred to the Office of Compliance and Enforcement for formal enforcement action, which may result in the assessment of a civil penalty. See page \_\_ for use of the "A" response.
- "B" is the response for violations where a civil penalty is not warranted at the first occasion of violation. See page \_\_ for use of the "B" response.
- "a/b" or "A/B"<sup>n</sup> responses are for violations where, depending upon the specific circumstances, either an "A" or "B" response could be appropriate. See page \_\_ for use of the "a/b" and "A/B"<sup>n</sup> responses. When "A/B"<sup>n</sup> is capitalized with a superscripted number, additional guidance is given on pages \_\_ to assist in determining whether to use the "A" or "B" response.
- "C" is the response for Class III violations, and is an escalating response. See page \_\_ for the use of the "C" response.
- "D" is the response for Class I violations of a permit where a Notice of Permit Violation (NPV) must be issued. See page \_\_ for the use of the "D" response.
- "E" is an escalating response for Class II violations of a permit. See page \_\_ for the use of the "E" response.
- "F" is an escalating response for Class III violations of a permit or other repeated or continuous Class III violations. See page \_\_ for use of the "F" response.
3. Once you have determined which letter response to use, find the draft language applicable to that letter. Incorporate this language into the NON to inform the violator of the enforcement consequences of the violation.

## 2. Program Classification Tables

### AIR QUALITY (OAR 340-012-0050)

Violations pertaining to air quality shall be classified as follows:

- (1) Class One:**
- |                  |     |  |
|------------------|-----|--|
| a/b              | (a) | Violation of a requirement or condition of a Commission or Department Order, or variance;  |
| A/B <sup>1</sup> | (b) | Constructing or operating a source required to have a permit other than a Basic ACDP without first obtaining the appropriate permit;   |
| A/B <sup>2</sup> | (c) | Modifying a source with an Air Permit without first notifying and receiving approval from the Department;  |
|                  | (d) | Failure to install control equipment or meet performance standards as required by New Source Performance Standards under OAR 340 Division 238 or National Emission Standards for Hazardous Air Pollutant Standards under OAR 340 Division 244;       |
| a/b              | (e) | Violation of a compliance schedule in a permit;  |
| A                | (f) | Exceeding an a hazardous air pollutant emission limitation;  |
| A                | (g) | Exceeding an opacity or criteria pollutant emission limitation in a permit, rule or order by a factor of greater than or equal to two times the limitation;  |
| A/B <sup>3</sup> | (h) | Exceeding the yearly emission limitations of a permit, rule or order;  |
| A/B <sup>4</sup> | (i) | Failure to perform testing, or monitoring, required by a permit, rule or order that results in failure to show compliance with an emission limitation or a performance standard;   |
| A/B <sup>5</sup> | (j) | Systematic failure to keep records required by a permit, rule or order;  |
| A/B <sup>6</sup> | (k) | Failure to submit semi-annual Compliance Certifications or Oregon Title V Annual Operating Report;   |
| A/B <sup>7</sup> | (l) | Failure to file a timely application for a Federal Operating Permit pursuant to OAR 340 Division 218;  |
| A                | (m) | Submitting a report, semi-annual Compliance Certification or Oregon Title V Annual Operating Report, or any part thereof, that does not accurately reflect the monitoring, record keeping or other documentation held or performed by the permittee; |
| A                | (n) | Causing emissions that are a hazard to public safety;  |
| A                | (o) | Failure to comply with Emergency Action Plans or allowing excessive emissions during emergency episodes;   |
| A                | (p) | Violation of a work practice requirement for asbestos abatement projects which causes a potential for public exposure to asbestos or release of asbestos into the environment;   |



- A (q) Storage or accumulation of friable asbestos material or asbestos-containing waste material from an asbestos abatement project which causes a potential for public exposure to asbestos or release of asbestos into the environment;
- a/b (r) Visible emissions of asbestos during an asbestos abatement project or during collection, processing, packaging, transportation, or disposal of asbestos-containing waste material;
- A/B<sup>8</sup> (s) Conduct of an asbestos abatement project by a person not licensed as an asbestos abatement contractor;
- A (t) Violation of a disposal requirement for asbestos-containing waste material which causes a potential for public exposure to asbestos or release of asbestos into the environment;
- a/b (u) Failing to hire a licensed contractor to conduct an asbestos abatement project which results in the potential for public exposure to asbestos or release of asbestos into the environment;
- B (v) Advertising to sell, offering to sell or selling a non-certified wood stove;
- A/B<sup>9</sup> (w) Open burning of materials which are prohibited from being open burned anywhere in the State by OAR 340-264-0060(3) [prohibited materials];
- B (x) Failure to install vapor recovery piping in accordance with standards set forth in OAR Chapter 340, Division 150;
- A/B<sup>10</sup> (y) Installing vapor recovery piping without first obtaining a service provider license in accordance with requirements set forth in OAR Chapter 340, Division 160;
- A (z) Submitting falsified actual or calculated emission fee data;
- A/B<sup>11</sup> (aa) Failure to provide access to premises or records when required by law, rule, permit or order;
- A (bb) Any violation related to air quality which causes a major harm or poses a major risk of harm to public health or the environment.

**(2) Class Two:**

- A/B<sup>12</sup> (a) Unless otherwise classified, exceeding an emission limitation other than an annual emission limitation, or exceeding an opacity limitation by more than five percent opacity in permit, rules or order;
- B (b) Violating standards in permits or rules for fugitive emissions, particulate deposition, or odors;
- B (c) Failure to submit a complete Air Contaminant Discharge Permit application 60 days prior to permit expiration or prior to modifying a source;
- a/b (d) Failure to maintain on site records when required by a permit to be maintained on site;
- a/b (e) Exceedances of operating limitations that limit the potential to emit that do not result in emissions above the Oregon Title V Operating Permit permitting thresholds pursuant to OAR 340 Division 218;
- a/b (f) Failure to perform testing or monitoring required by a permit, rule or order unless otherwise classified.

- a/b (g) Illegal open burning of agricultural, commercial, construction, demolition, and/or industrial waste except for open burning in violation of OAR 340-264-0060(3) [prohibited materials];
- B (h) Failing to comply with notification and reporting requirements in a permit;
- A/B<sup>8</sup> (i) Failure to comply with asbestos abatement licensing, certification, or accreditation requirements;
- A/B\* (j) Failure to provide notification of an asbestos abatement project;
- A/B\* (k) Violation of a work practice requirement for asbestos abatement projects that does not cause a potential for public exposure to asbestos and does not release asbestos into the environment;
- B (l) Violation of a disposal requirement for asbestos-containing waste material that does not cause a potential for public exposure to asbestos and does not release asbestos into the environment;
- a/b (m) Failure to perform a final air clearance test or submit an asbestos abatement project air clearance report for an asbestos abatement project;
- B (n) Failure to display permanent labels on a certified woodstove;
- B (o) Alteration of a permanent label for a certified woodstove;
- a/b (p) Failure to use Department-approved vapor control equipment when transferring fuel;
- B (q) Operating a vapor recovery system without first obtaining a piping test performed by a licensed service provider as required by OAR Chapter 340, Division 160;
- B (r) Failure to obtain Department approval prior to installing a Stage II vapor recovery system not already registered with the Department as specified in Department rules;
- B (s) Installing, servicing, repairing, disposing of or otherwise treating automobile air conditioners without recovering and recycling chlorofluorocarbons using approved recovery and recycling equipment;
- B (t) Selling, or offering to sell, or giving as a sales inducement any aerosol spray product which contains as a propellant any compound prohibited under ORS 468A.655;
- B (u) Selling any chlorofluorocarbon or halon containing product prohibited under ORS 468A.635;
- B (v) Failure to pay an emission fee;
- B (w) Submitting inaccurate emission fee data;
- (x) Violation of OAR 340-242-0620, by a person who has performed motor vehicle refinishing on 10 or more on-road motor vehicles in the previous 12 months.
- a/b (y) Constructing or operating a source required to have a Basic ACDP;
- a/b (z) Any violation of the Employee Commute Option rules contained in OAR 340-242-0100 to 0290;
- B (aa) Any violation related to air quality which is not otherwise classified in these rules.

**(3) Class Three:**

- C (a) Failure to perform testing or monitoring required by a permit, rule or order where missing data can be reconstructed to show compliance with standards, emission limitations or underlying requirements;
- C (b) Illegal residential open burning;
- C (c) Improper notification of an asbestos abatement project;
- C (d) Failure to submit a completed renewal application for an asbestos abatement license in a timely manner;
- C (e) Failure to display a temporary label on a certified wood stove;
- C (f) Exceeding opacity limitation in permits or rules by 5% opacity or less;
- B (g) Violation of OAR 340-242-0620 by a person who has performed motor vehicle refinishing on fewer than 10 on-road motor vehicles in the previous 12 months.

**NOISE CONTROL**  
**(OAR 340-012-0052)\***

**Violations pertaining to noise control shall be Classified as follows:**

**(1) Class One:**

- (a) Violation of a Commission or Department order or variance;
- (b) Violations that exceed noise standards by ten (10) decibels or more;
- (c) Exceeding the ambient degradation rule by five (5) decibels or more; or
- (d) Failure to submit a compliance schedule required by OAR 340-35-035(2);
- (e) Operating a motor sports vehicle without a properly installed or well-maintained muffler or exceeding the noise standards set forth in OAR 340-35-040(2);
- (f) Operating a new permanent motor sports facility without submitting and receiving approval of projected noise impact boundaries;
- (g) Failure to provide access to premises or records when required by law, rule, or order;
- (h) Violation of motor racing curfews set forth in OAR 340-35-040(6);
- (i) Any violation related to noise control which causes a major harm or poses a major risk of harm to public health or the environment.

**(2) Class Two:**

- (a) Violations that exceed noise standards by three (3) decibels or more;
- (b) Advertising or offering to sell or selling an uncertified racing vehicle without displaying the required notice or obtaining a notarized affidavit of sale;
- (c) Any violation related to noise control which is not otherwise classified in these rules.

**(3) Class Three:**

Violations that exceed noise standards by one (1) or two (2) decibels are Class III violations.

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\* The Department does not enforce these rules.

**WATER QUALITY**  
**(OAR 340-012-0055)**

For construction stormwater violations, refer to A/B<sup>13</sup> response on page \_\_\_.

For violations of other national pollutant discharge elimination (NPDES) permits, consult the "NSP" (Not State Permit) column below.

For violations of water pollution control facilities (WPCF) permits:

- if the permit is related to Underground Injection Control (UIC) as described below,\* consult the "NSP" column below; or
- if the permit is not UIC consult the "SP" (state permit) column below.

For all other violations, consult the "NSP" column below.

**Violations pertaining to water quality shall be classified as follows:**

<b>SP</b>	<b>NSP</b>	<b><u>(1) Class One:</u></b>
n.a.	a/b	(a) Violation of a requirement or condition of a Commission or Department Order;
n.a.	A/B <sup>14</sup>	(b) Causing pollution of waters of the State;
n.a.	a/b	(c) Reducing the water quality of waters of the State below water quality standards;
A/B <sup>14</sup>	A/B <sup>14</sup>	(d) Any discharge of waste that enters waters of the state, either without a waste discharge permit or from a discharge point not authorized by a waste discharge permit;
a/b	a/b	(e) Failure to comply with statute, rule, or permit requirements regarding notification of a spill or upset condition which results in a non-permitted discharge to public waters;
D	a/b	(f) Violation of a permit compliance schedule [Schedule C requirement];
D	A	(g) Any violation of any pretreatment standard or requirement by a user of a municipal treatment works which either impairs or damages the treatment works, or causes a major harm or poses a major risk of harm to public health or the environment;

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\* An Underground Injection Control (UIC) system is any man-made system that is used to discharge to the subsurface. Violations of any of the following are UIC violations:

- (1) WPCF no. 520A1; no. 1400B discharging to a drainfield; no. 1500B injecting any fluid into the ground; no. 1800; no. 5600B; or no. 4400; or
- (2) Any industrial or mixed industrial and domestic fluid, sludge or solid waste discharged to a drainfield, drywell, french drain, drill hole, abandoned well, or floor drain that goes to ground or drainfield; or
- (3) Any on-site system that discharges more than 2500 gallons per day of domestic-only sewage or that serves 20 or more people.

For further information, see <http://deq05/wq/uic/uichome.htm#InjectionClasses>.

- |      |                   |     |   |
|------|-------------------|-----|---|
| n.a. | A/B <sup>15</sup> | (h) | Operation of a disposal system without first obtaining a Water Pollution Control Facility Permit;                                   |
| D    | A/B <sup>11</sup> | (i) | Failure to provide access to premises or records when required by law, rule, permit or order;                                       |
| n.a. | A                 | (j) | Failure of any ship carrying oil to have financial assurance as required in ORS 468B.300 to 468B.335 or rules adopted thereunder;   |
| D    | A                 | (k) | Any violation related to water quality which causes a major harm or poses a major risk of harm to public health or the environment; |
| D    | A/B <sup>16</sup> | (l) | Unauthorized changes, modifications, or alterations to a facility operating under a WPCF or NPDES permit;                           |
| A    | A                 | (m) | Intentionally submitting false information;   |
| a/b  | a/b               | (n) | Operating or supervising a wastewater treatment system without proper certification.  |

**(2) Class Two:**

- |      |                   |     |   |
|------|-------------------|-----|---|
| E    | B                 | (a) | Failure to submit a report or plan as required by rule permit, or license, except for a report required by permit compliance schedule;  |
| E    | B                 | (b) | Any violation of OAR Chapter 340, Division 49 regulations pertaining to certification of wastewater system operator personnel unless otherwise classified;                                    |
| a/b  | a/b               | (c) | Placing wastes such that the wastes are likely to enter public waters by any means;   |
| n.a. | a/b               | (d) | Failure by any ship carrying oil to keep documentation of financial assurance on board or on file with the Department as required by ORS 468B.300 to 468B.335 or rules adopted thereunder;    |
| E    | a/b               | (e) | Failing to connect all plumbing fixtures to, or failing to discharge wastewater or sewage into, a Department-approved system unless otherwise classified in OAR 340-012-0055 or 340-012-0060; |
| E    | n.a.              | (f) | Any violation of a management, monitoring, or operational plan established pursuant to a waste discharge permit, that is not otherwise classified in these rules;                             |
| E    | A/B <sup>17</sup> | (g) | Any violation related to water quality which is not otherwise classified in these rules.  |

**(3) Class Three:**

- |   |   |     |   |
|---|---|-----|---|
| F | C | (a) | Failure to submit a discharge monitoring report on time;  |
| F | C | (b) | Failure to submit a complete discharge monitoring report;   |
| F | C | (c) | Exceeding a waste discharge permit biochemical oxygen demand (BOD), carbonaceous biochemical oxygen demand (CBOD), or total suspended solids (TSS) limitation by a concentration of 20 per cent or less, or exceeding a mass loading limitation by 10 per cent or less; |
| F | C | (d) | Violation of a removal efficiency requirement by a factor of less than or equal to 0.2 times the number value of the difference between 100 and the applicable removal efficiency requirement ( <i>e.g.</i> , if the requirement  |

is 65% removal,  $0.2 (100-65) = 0.2 (35) = 7\%$ ; then 7% would be the maximum percentage that would qualify under this rule for a permit with a 65% removal efficiency requirement);

F

C

(e) Violation of a pH requirement by less than 0.5 pH.

**ON-SITE SEWAGE DISPOSAL**  
**(OAR 340-012-0060)**

**Violations pertaining to On-Site Sewage Disposal shall be classified as follows:**

- (1) Class One:**
- a/b (a) Violation of a requirement or condition of a Commission or Department order;
  - A/B<sup>10</sup> (b) Performing, advertising or representing one's self as being in the business of performing sewage disposal services without first obtaining and maintaining a current sewage disposal service license from the Department;
  - A/B<sup>18</sup> (c) Installing or causing to be installed an on-site sewage disposal system or any part thereof, or repairing any part thereof, without first obtaining a permit;
  - A (d) Disposing of septic tank, holding tank, chemical toilet, privy or other treatment facility contents in a manner or location not authorized by the Department;
  - A/B (e) Operating or using an on-site sewage disposal system that is failing by discharging sewage or effluent;
  - A/B<sup>11</sup> (f) Failure to provide access to premises or records when required by law, rule, permit or order;
  - A (g) Any violations related to on-site sewage disposal which cause major harm or pose a major risk of harm to public health, welfare, safety or the environment.
- (2) Class Two:**
- B (a) Installing or causing to be installed an on-site sewage disposal system, or any part thereof, or the repairing of any part thereof, which fails to meet the requirements for satisfactory completion within thirty (30) days after written notification or posting of a Correction Notice at the site;
  - B (b) Operating or using a nonwater-carried waste disposal facility without first obtaining a letter of authorization from the Agent;
  - B (c) Operating or using a newly constructed, altered or repaired on-site sewage disposal system, or part thereof, without first obtaining a Certificate of Satisfactory Completion;
  - B (d) Providing any sewage disposal service in violation of any statute, rule, license, or permit, provided that the violation is not otherwise classified in these rules;
  - B (e) Failing to obtain an authorization notice from the Agent prior to affecting change to a dwelling or commercial facility that results in the potential increase in the projected peak sewage flow from the dwelling or commercial facility in excess of the sewage disposal system's peak design flow.
  - B (f) Installing or causing to be installed a nonwater-carried waste disposal facility without first obtaining written approval from the Agent;
  - B (g) Failing to connect all plumbing fixtures to, or failing to discharge waste water or sewage into, a Department approved on-site system;
  - B (h) Any violation related to on-site sewage disposal which is not otherwise classified in these rules.



**(3) Class Three:**

C

Violations where the sewage disposal system design flow is not exceeded, placing an existing system into service, or changing the dwelling or type of commercial facility, without first obtaining an authorization notice are Class III violations.

**SOLID WASTE MANAGEMENT**  
**(OAR 340-012-0065)**

For violations of a solid waste disposal permit, other than a subtitle D landfill (municipal waste landfill), refer to the responses in the “PMT” column in the Table below and follow the Notice of Permit Violation enforcement pathway. For violations of a subtitle D permit refer to responses in the “SubD” column. For all other violations, not related to a permit, consult the “NO PMT” column below.

**Violations pertaining to the management, recovery and disposal of solid waste shall be classified as follows:**

<u>PMT</u>	<u>SubD</u>	<u>NO PMT</u>	<u>(1) Class One:</u>
D	a/b	a/b	(a) Violation of a requirement or condition of a Commission or Department Order;
D	a/b	A/B <sup>19</sup>	(b) Establishing, expanding, maintaining or operating a disposal site without first obtaining a registration or permit;
D	A	n.a.	(c) Accepting solid waste for disposal in a permitted solid waste unit or facility that has been expanded in area or capacity without first submitting plans to the Department and obtaining Department approval;
D	A	n.a.	(d) Disposing of or authorizing the disposal of a solid waste at a location not permitted by the Department to receive that solid waste;
D	A	n.a.	(e) Violation of the freeboard limit which results in the actual overflow of a sewage sludge or leachate lagoon;
D	B	n.a.	(f) Violation of the landfill methane gas concentration standards;
D	B	n.a.	(g) Violation of any federal or state drinking water standard in an aquifer beyond the solid waste boundary of the landfill, or an alternative boundary specified by the Department;
D	B	n.a.	(h) Violation of a permit-specific groundwater concentration limit, as defined in OAR 340-040-0030(3) at the permit-specific groundwater concentration compliance point, as defined in OAR 340-040-0030(2)(e);
D	B	n.a.	(i) Failure to perform the groundwater monitoring action requirements specified in OAR 340-040-0030(5), when a significant increase (for pH, increase or decrease) in the value of a groundwater monitoring parameter is detected.
D	B	n.a.	(j) Impairment of the beneficial uses(s) of an aquifer beyond the solid waste boundary or an alternative boundary specified by the Department;

- |     |                   |                   |     |   |
|-----|-------------------|-------------------|-----|---|
| D   | A                 | n.a.              | (k) | Deviation from the Department approved facility plans which results in a safety hazard, public health hazard or damage to the environment;  |
| D   | A/B <sup>20</sup> | n.a.              | (l) | Failure to properly construct and maintain groundwater, surface water, gas or leachate collection, treatment, disposal and monitoring facilities in accordance with the facility permit, the facility environmental monitoring plan, or Department rules; |
| D   | B                 | n.a.              | (m) | Failure to collect, analyze and report ground-water, surface water or leachate quality data in accordance with the facility permit, the facility environmental monitoring plan, or Department rules;  |
| D   | a/b               | n.a.              | (n) | Violation of a compliance schedule contained in a solid waste disposal or closure permit;   |
| D   | A/B <sup>11</sup> | A/B <sup>11</sup> | (o) | Failure to provide access to premises or records when required by law, rule, permit or order;   |
| D   | A                 | A                 | (p) | Knowingly disposing, or accepting for disposal, materials prohibited from disposal at a solid waste disposal site by statute, rule, permit or order;  |
| D   | a/b               | n.a.              | (q) | Accepting, handling, treating or disposing of clean-up materials contaminated by hazardous substances by a landfill in violation of the facility permit and plans as approved by the Department or the provisions of OAR 340-093-0170(3).                 |
| D   | A                 | A                 | (r) | Accepting for disposal infectious waste not treated in accordance with laws and Department rules;   |
| D   | A                 | A                 | (s) | Accepting for treatment, storage or disposal wastes defined as hazardous under ORS 466.005, <i>et seq.</i> , or wastes from another state which are hazardous under the laws of that state without specific approval from the Department;                 |
| D   | B                 | B                 | (t) | Mixing for disposal or disposing of principal recyclable material that has been properly prepared and source separated for recycling;   |
| D   | a/b               | a/b               | (u) | Receiving special waste in violation of or without a Department approved Special Waste Management Plan;   |
| D   | a/b               | a/b               | (v) | Failure to follow a Department approved Construction Quality Assurance (CQA) plan when constructing a waste cell;   |
| D   | a/b               | a/b               | (w) | Failure to comply with a Department approved Remedial Investigation Workplan developed in accordance with OAR 340-040-0040;   |
| D   | a/b               | a/b               | (x) | Failure to establish and maintain financial assurance as required by statute, rule, permit or order;  |
| D   | a/b               | a/b               | (y) | Open burning in violation of OAR 340-264-0060(3) [prohibited materials];  |
| a/b | a/b               | a/b               | (z) | Failure to abide by the terms of a permit automatically terminated due to a failure to submit a timely application for renewal as set forth in OAR 340-093-0115(1)(c).  |

D A A (aa) Any violation related to the management, recovery and disposal of solid waste which causes major harm or poses a major risk of harm to public health or the environment.

**(2) Class Two:**

- E a/b n.a. (a) Violation of a condition or term of a Letter of Authorization;
- E B n.a. (b) Failure of a permitted landfill, solid waste incinerator or a municipal solid waste compost facility operator or a metropolitan service district to report amount of solid waste disposed in accordance with the laws and rules of the Department;
- E B n.a. (c) Failure to accurately report weight and type of material recovered or processed from the solid waste stream in accordance with the laws and rules of the Department;
- E B n.a. (d) Failure of a disposal site to obtain certification for recycling programs in accordance with the laws and rules of the Department prior to accepting solid waste for disposal;
- E B n.a. (e) Acceptance of solid waste by a permitted disposal site from a person that does not have an approved solid waste reduction program in accordance with the laws and rules of the Department;
- E B n.a. (f) Failure to comply with any solid waste permit requirement pertaining to permanent household hazardous waste collection facility operations;
- E a/b n.a. (g) Failure to comply with landfill cover requirements, including but not limited to daily, intermediate, and final covers, and limitation of working face size;
- E a/b n.a. (h) Unless otherwise classified, failure to comply with any plan approved by the Department;
- E a/b n.a. (i) Failure to submit a permit renewal application 180 days prior to the expiration date of the existing permit;
- E a/b n.a. (j) Failure to establish and maintain a facility operating record for a municipal solid waste landfill;
- E B n.a. (k) Any violation related to solid waste, solid waste reduction, or any violation of a solid waste permit not otherwise classified in these rules.

**(3) Class Three:**

- F C n.a. (a) Failure to post required signs;
- F C n.a. (b) Failure to control litter;
- F C n.a. (c) Unless otherwise classified, failure to notify the Department of any name or address change of the owner or operator of the facility within ten days of the change.

**WASTE TIRE MANAGEMENT**  
**(OAR 340-012-0066)**

For violations of a waste tire management permit consult the “PMT” column in the Table below and follow the Notice of Permit Violation enforcement path. For all other violations, not related to permits, consult the “NO PMT” column below.

**Violations pertaining to the storage, transportation and management of waste tires or tire-derived products shall be classified as follows:**

<b><u>PMT</u></b>	<b><u>NO PMT</u></b>	
		<b><u>(1) Class One:</u></b>
D	a/b	(a) Violation of a requirement or condition of a Commission or Department Order;
D	a/b	(b) Establishing, expanding, or operating a waste tire storage site without first obtaining a permit;
D	a/b	(c) Systematic failure to maintain written records of waste tire generation and disposal as required;
D	a/b	(d) Disposing of waste tires or tire-derived products at an unauthorized site;
D	n.a.	(e) Violation of the compliance schedule or fire safety requirements of a waste tire storage site permit;
n.a.	A/B <sup>10</sup>	(f) Hauling waste tires or advertising or representing one's self as being in the business of a waste tire carrier without first obtaining a waste tire carrier permit as required by laws and rules of the Department;
B	B	(g) Hiring or otherwise using an unpermitted waste tire carrier to transport waste tires;
D	B	(h) Failure to establish and maintain financial assurance as required by statute, rule, permit or order;
D	A/B <sup>11</sup>	(i) Failure to provide access to premises or records when required by law, rule, permit or order;
D	A	(j) Any violation related to the storage, transportation or management of waste tires or tire-derived products which causes major harm or poses a major risk of harm to public health or the environment.
		<b><u>(2) Class Two:</u></b>
E	n.a.	(a) Violation of a waste tire storage site or waste tire carrier permit other than a specified Class One or Class Three violation;
E	n.a.	(b) Failure to submit a permit renewal application prior to the expiration date of the existing permit within the time required by statute, rule, or permit;
E	B	(c) Hauling waste tires in a vehicle not identified in a waste tire carrier permit or failing to display required decals as described in a permittee's waste tire carrier permit;
E	A/B	(d) Violation of a condition or term of a Letter Authorization;

E B (e) Any violation related to the storage, transportation or management of waste tires or tire-derived products which is not otherwise classified in these rules.

**(3) Class Three:**

- F C (a) Failure to submit required annual reports in a timely manner;
- F C (b) Failure to keep required records on use of vehicles;
- F C (c) Failure to post required signs;
- F C (d) Failure to submit a permit renewal application in a timely manner;
- F C (e) Failure to submit permit fees in a timely manner;
- F C (f) Failure to maintain written records of waste tire disposal and generation.

**UNDERGROUND STORAGE TANKS**  
**(OAR 340-012-0067)**

**Violations pertaining to Underground Storage Tanks and cleanup of petroleum contaminated soil at heating oil tanks shall be classified as follows:**

**(1) Class One:**

- a/b (a) Violation of a requirement or condition of a Commission or Department Order;
- a/b (b) Failure to report a release or suspected release from an underground storage tank or a heating oil tank as required by statute, rule or permit;
- a/b (c) Failure to initiate and complete the investigation or cleanup of a release from an underground storage tank or a heating oil tank;
- a/b (d) Failure to prevent a release from an underground storage tank;
- a/b (e) Failure to submit required reports from the investigation or cleanup of a release from an underground storage tank or heating oil tank;
- A/B<sup>11</sup> (f) Failure to provide access to premises or records when required by law, rule, permit or order;
- a/b (g) Placement of a regulated material into an unpermitted underground storage tank;
- B (h) Installation of an underground storage tank in violation of the standards or procedures adopted by the Department;
- a/b (i) Failure to initiate and complete free product removal in accordance with OAR 340-122-0235;
- A/B<sup>10</sup> (j) Providing installation, retrofitting, decommissioning, or testing services on an underground storage tank or providing cleanup of petroleum contaminated soil at an underground storage tank facility without first registering or obtaining an underground storage tank service providers license;
- A/B<sup>10</sup> (k) Supervising the installation, retrofitting, decommissioning, or testing of an underground storage tank or supervising cleanup of petroleum contaminated soil at an underground storage tank facility without first obtaining an underground storage tank supervisors license;
- A (l) Any other violation related to underground storage tank or heating oil tanks or cleanup of petroleum contaminated soil at heating oil tanks which poses a major risk of harm to public health or the environment.

**(2) Class Two**

- B (a) Failure to conduct required underground storage tank monitoring and testing activities;
- B (b) Failure to conform to operational standards for underground storage tanks and leak detection systems;
- A (c) Failure to obtain a permit prior to the installation or operation of an underground storage tank [this violation is being made Class I];

- B (d) Decommissioning, installing, or retrofitting an underground storage tank or conducting a soil matrix cleanup without first providing the required notifications to the Department;
- B (e) Failure to properly decommission an underground storage tank;
- A/B<sup>10</sup> (f) Providing installation, retrofitting, decommissioning or testing services on a regulated underground storage tank or providing cleanup of petroleum contaminated soil at a regulated underground storage tank that does not have a permit;
- B (g) Failure by a seller or distributor to obtain the tank permit number before depositing product into the underground storage tank or failure to maintain a record of the permit numbers;
- B (h) Allowing the installation, retrofitting, decommissioning, or testing of an underground storage tank or cleanup of petroleum contaminated soil at an underground storage tank by any person not licensed by the department;
- B (i) Allowing cleanup of petroleum contaminated soil at a heating oil tank by any person not licensed by the Department;
- A/B<sup>10</sup> (j) Providing petroleum contaminated soil cleanup services at a heating oil tank without first registering or obtaining a soil matrix cleanup service provider license;
- A/B<sup>10</sup> (k) Providing supervision of petroleum contaminated soil at a heating oil tank without first registering or obtaining a soil matrix cleanup supervision license;
- A/B<sup>10</sup> (l) Supervising petroleum contaminated soil cleanup at a heating oil tank without first registering or obtaining a soil matrix cleanup supervisor license;
- B (m) Failure to submit a corrective action plan (CAP) in accordance with the schedule or format established by the Department pursuant to OAR 340-122-0250.
- B (n) Failure by the tank owner to provide the permit number to persons depositing product into the underground storage tank;
- B (o) Any other violation related to underground storage tanks or heating oil tanks or cleanup of petroleum contaminated soil at a heating oil tank that is not otherwise classified in these rules.

**(3) Class Three:**

- C (a) Failure of a new owner of an underground storage tank to submit an application for a permit modification or a new permit;
- C (b) Failure of a tank seller or product distributor to notify a tank owner or operator of the Department's permit requirements;
- B (c) Failure to provide information to the Department regarding the contents of an underground storage tank;
- C (d) Failure to maintain adequate decommissioning records.



**HAZARDOUS WASTE MANAGEMENT AND DISPOSAL**  
**(OAR 340-012-0068)**

For conditionally-exempt generators (CEGs) use response "B." For small quantity generators (SQGs), large quantity generators (LQGs) and treatment, storage & disposal facilities (TSDs), consult the tables below:

**Violations pertaining to the management and disposal of hazardous waste including universal wastes shall be classified as follows:**

**(1) Class One:**

- a/b (a) Violation of a requirement or condition of a Department or Commission order;
- a/b (b) Failure to make a complete and accurate hazardous waste determination of a residue as required by OAR 340-102-0011;
- a/b (c) Failure to have a waste analysis plan as required by 40 CFR 265.13;
- A/B<sup>21</sup> (d) Operation of a hazardous waste treatment, storage or disposal facility (TSD) without first obtaining a permit or without having interim status pursuant to OAR 340-105-0010(2)(a);
- A (e) Accumulation of hazardous waste on site for longer than twice the applicable generator allowable on-site accumulation period;
- A (f) Transporting or offering for transport hazardous waste for off-site shipment without first preparing a manifest;
- A/B<sup>22</sup> (g) Accepting for transport hazardous waste which is not accompanied by a manifest;
- A (h) Systematic failure of a hazardous waste generator to comply with the manifest system requirements;
- a/b (i) Failure to submit a manifest discrepancy report or exception report;
- a/b (j) Failure to prevent the unknown entry or prevent the possibility of the unauthorized entry of person or livestock into the waste management area of a TSD facility;
- a/b (k) Failure to manage ignitable, reactive, or incompatible hazardous wastes as required under 40 CFR Part 264 and 265.17(b)(1), (2), (3), (4) and (5);
- A (l) Illegal disposal of hazardous waste;
- A (m) Disposal of hazardous waste in violation of the land disposal restrictions;
- a/b (n) Failure to contain waste pesticide or date containers of waste pesticide as required by OAR 340-109-0010(2);
- A (o) Treating or diluting universal wastes in violation of 40 CFR 273.11, 273.31 or OAR 340-113-0030(5);
- A (p) Use of empty non-rigid or decontaminated rigid pesticide containers for storage of food, fiber or water intended for human or animal consumption;
- A (q) Mixing, solidifying, or otherwise diluting hazardous waste to circumvent land disposal restrictions;
- a/b (r) Incorrectly certifying a hazardous waste for disposal/ treatment in violation of the land disposal restrictions;

- a/b (s) Failure to submit a Land Disposal notification, demonstration or certification with a shipment of hazardous waste;
- A (t) Shipping universal waste to a site other than an off-site collection site, destination facility or foreign destination in violation of 40 CFR 273.18 or 273.38;
- a/b (u) Failure to comply with the hazardous waste tank integrity assessments and certification requirements;
- A (v) Failure of an owner/operator of a TSD facility to have a closure and/or post closure plan and/or cost estimates;
- A (w) Failure of an owner/operator of a TSD facility to retain an independent registered professional engineer to oversee closure activities and certify conformity with an approved closure plan;
- A (x) Failure of an owner/operator of a TSD facility to establish or maintain financial assurance for closure and/or post closure care;
- a/b (y) Systematic failure of an owner/operator of a TSD facility or a generator of hazardous waste to conduct inspections;
- a/b (z) Failure of an owner/operator of a TSD facility or generator to promptly correct any hazardous waste condition discovered during an inspection;
- a/b (aa) Failing to prepare a Contingency Plan;
- A (bb) Failure to follow an emergency procedure contained in a Contingency Plan or other emergency response plan when failure could result in serious harm;
- a/b (cc) Storage of hazardous waste in a container which is leaking or presenting a threat of release;
- A/B<sup>23</sup> (dd) Storing more than 100 containers of hazardous waste without complying with the secondary containment requirements at 40 CFR 264.175;
- a/b (ee) Systematic failure to follow hazardous waste container labeling requirements or lack of knowledge of container contents;
- A (ff) Failure to label a hazardous waste container where such failure could cause an inappropriate response to a spill or leak and substantial harm to public health or the environment;
- a/b (gg) Failure to date a hazardous waste container with a required accumulation date or failure to document length of time hazardous waste was accumulated;
- a/b (hh) Failure to comply with the export requirements for hazardous wastes;
- A (ii) Violation of any TSD facility permit, provided that the violation is equivalent to any Class I violation set forth in these rules;
- a/b (jj) Systematic failure to comply with hazardous waste generator annual reporting requirements, Treatment, Storage, Disposal and Recycling facility annual reporting requirements and annual registration information;
- a/b (kk) Failure to properly install groundwater monitoring wells such that detection of hazardous waste or hazardous constituents that migrate from the waste management area cannot be immediately be detected;
- A (ll) Failure to install any groundwater monitoring wells;
- a/b (mm) Failure to develop and follow a groundwater sampling and analysis plan using proper techniques and procedures;

- A (nn) Generating and treating, storing, disposing of, transporting, and/or offering for transportation, hazardous waste without first obtaining an EPA Identification Number;
- A/B<sup>24</sup> (oo) Systematic failure of a large-quantity hazardous waste generator or TSD facility to properly control volatile organic hazardous waste emissions
- A/B<sup>11</sup> (pp) Failure to provide access to premises or records when required by law, rule, permit or order;
- A (qq) Any violation related to the generation, management and disposal of hazardous waste which causes major harm or poses a major risk of harm to public health or the environment.

(2) Class two:

- a/b (a) Failure to keep a copy of the documentation used to determine whether a residue is a hazardous waste;
- a/b (b) Failure to label a tank or container of hazardous wastes with the words "Hazardous Waste," "Pesticide Waste," "Universal Waste" or with other words as required that identify the contents;
- a/b (c) Failure to comply with hazardous waste generator annual reporting requirements, Treatment, Storage, Disposal and Recycling facility annual reporting requirements and annual registration information, unless otherwise classified;
- a/b (d) Failing to keep a container of hazardous waste closed except when necessary to add or remove waste;
- a/b (e) Failing to inspect areas where containers of hazardous waste are stored, at least weekly;
- a/b (f) Failure of a hazardous waste generator to maintain aisle space adequate to allow the unobstructed movement of personnel, fire protection equipment, spill control equipment, and decontamination;
- a/b (g) Accumulating hazardous waste on-site, without fully complying with the Personnel Training requirements;
- a/b (h) Failure to manage universal waste in a manner that prevents releases into the environment;
- a/b (i) Failure to comply with the empty pesticide container management requirements unless otherwise classified;
- B (j) Failure of a dry cleaner subject to ORS 465, to comply with the waste minimization requirements in ORS 465.505(1)(a-g);
- B (k) Failure of a dry cleaner subject to ORS 465, to comply with the waste minimization reporting requirements in ORS 465.505(3);
- B (l) Failure of a dry cleaner subject to ORS 465, to immediately report any release of dry cleaning solvent in excess of 1 pound;
- a/b (m) Any violation pertaining to the generation, management and disposal of hazardous waste which is not otherwise classified in these rules is a Class Two violation.

**(3) Class three:**

- B (a) Accumulation of hazardous waste on site by a large-quantity generator for less than ten days over the allowable on-site accumulation period;
- B (b) Accumulation of hazardous waste on site by a small-quantity generator for less than twenty days over the allowable on-site accumulation period;
- B (c) Failure of a large-quantity generator of hazardous waste to retain signed copies of manifests for at least three years when less than 5% of the reviewed manifests are missing and the facility is able to obtain copies during the inspection;
- B (d) Failure of a small-quantity generator of hazardous waste to retain signed copies of manifests for at least three years when only 3 of the reviewed manifests are missing and the facility is able to obtain copies and submit them to the Department within 10 days of the inspection;
- B (e) Failure to label only one container or tank which is less than 60 gallons in volume and in which hazardous waste was accumulated on site, with the required words "Hazardous Waste," "Pesticide Waste," "Universal Waste" or with other words as required that identify the contents;
- B (f) Failure of a large-quantity generator to retain copies of land disposal restriction notifications, demonstrations, or certifications when less than 5% of the reviewed land disposal restriction notices are missing and the facility is able to obtain copies during the inspection;
- B (g) Failure of a small-quantity generator to retain copies of land disposal restriction notifications, demonstrations, or certifications when 3 or fewer of the reviewed land disposal restriction notices missing and the facility is able to obtain copies and submit them to the Department within 10 days of the inspection;
- B (h) Failure to keep a container of hazardous waste located in a "satellite accumulation area" closed except when necessary to add or remove waste, when only one container is open;
- B (i) Failure to properly label a container of pesticide-containing material for use or reuse as required by OAR 340-109-0010(1).

**OIL AND HAZARDOUS MATERIAL SPILL AND RELEASE**  
**(OAR 340-012-0069)**

**Violations pertaining to spills or releases of oil or hazardous materials shall be classified as follows:**

**(1) Class One:**

- a/b (a) Violation of a requirement or condition of a Commission or Department Order;
- A/B<sup>11</sup> (b) Failure to provide access to premises or records when required by law, rule, permit or order;
- a/b (c) Failure by any person having ownership or control over oil or hazardous materials to immediately clean up spills or releases or threatened spills or releases;
- a/b (d) Failure by any person having ownership or control over oil or hazardous materials to immediately report all spills or releases or threatened spills or releases in amounts equal to or greater than the reportable quantity;
- A (e) Any violation related to the spill or release of oil or hazardous materials which causes a major harm or poses a major risk of harm to public health or the environment;
- A/B<sup>14</sup> (f) Any spill or release of oil or hazardous materials which enters waters of the state.
- A (g) Failure to have a spill response or contingency plan; or failure to follow emergency procedures contained in a spill response or contingency plan when the plan is required by permit, rule, or order; or failure to follow emergency requirements at OAR 340-108-0020(2); when failure could result in serious harm;

**(2) Class two**

- B Any violation related to the spill or release of oil or hazardous materials which is not otherwise classified in these rules is a Class Two violation.

**POLYCHLORINATED BIPHENOLS (PCBs)**  
**(OAR 340-012-0071)**

**Violations pertaining to the management and disposal of polychlorinated biphenyls (PCB) shall be classified as follows:**

**(1) Class One:**

- a/b (a) Violation of a Commission or Department Order;
- A (b) Treating or disposing of PCBs anywhere other than at a permitted PCB disposal facility;
- A (c) Establishing, constructing or operating a PCB disposal facility without first obtaining a permit;
- A/B<sup>11</sup> (d) Failure to provide access to premises or records when required to by law, rule, permit or order;
- A (e) Any violation related to the management and disposal of PCBs which causes a major harm or poses a major risk of harm to public health or the environment.

**(2) Class Two:**

- B (a) Violating a condition of a PCB disposal facility permit;
- B (b) Any violation related to the management and disposal of PCBs which is not otherwise classified in these rules.

**USED OIL MANAGEMENT**  
**(OAR 340-012-0072)**

**Violations pertaining to the management of used oil shall be classified as follows:**

**(1) Class One:**

- a/b (a) Violation of a requirement or condition of a Department or Commission Order;
- A (b) Using used oil as a dust suppressant or pesticide, or otherwise spreading used oil directly in the environment;
- A (c) Collecting, processing, storing, disposing of, and/or transporting, used oil without first obtaining an EPA Identification number;
- A (d) Burning used oil with less than 5,000 Btu/pound for the purpose of "energy recovery" in violation of OAR 340-111-0110(3)(b);
- A (e) Offering for sale used oil as specification used oil-fuel when the used oil does not meet used oil-fuel specifications;
- A (f) Offering to sell off-specification used oil fuel to facility not meeting the definition of an industrial boiler or furnace, or failing to obtain proper certification under 40 CFR 179.75;
- A (g) Burning off-specification used oil in a device not specifically exempted under 40 CFR 279.60(a) that does not meet the definition of an industrial boiler or furnace
- A/B<sup>25</sup> (h) Storing or managing used oil in a surface impoundment;
- A (i) Storing used oil in containers which are leaking or present a threat of release;
- A (j) Failure by a used oil transporter or processor to determine whether the halogen content of used oil exceeds that permissible for used oil;
- A (k) Failure to develop and follow a written waste analysis plan when required by law;
- A (l) Failure by a used-oil processor or transporter to manage used-oil residues as required under 40 CFR 279(10)(e);
- A (m) Any violation related to the management of used oil which causes major harm or poses a major risk of harm to public health or the environment;
- a/b<sup>11</sup> (n) Failure to provide access to premises or records when required to do so by law, rule, permit or order.

**(2) Class Two:**

- a/b (a) Failure to close or cover used oil tanks or containers as required by OAR 340-111-0032(2);
- B (b) Failing to submit annual used oil handling reports;
- A/B<sup>26</sup> (c) Failure by a used-oil transfer facility, processors, or off-specification used-oil burners to store used oil within secondary containment;
- a/b (d) Failure to label each container or tank in which used oil was accumulated on site with the words "used oil";
- A (e) Failure of a used-oil processor to keep a written operating record at the facility in violation of 40 CFR 279.57;

- A (f) Failure by a used-oil processor to prepare and maintain a preparedness and prevention plan;
- A (g) Failure by a used-oil processor to close out used-oil tanks or containers when required by 40 CFR 279.54(h);
- A/B<sup>z</sup> (h) Any violation related to the management of used oil which is not otherwise classified in these rules is a Class two violation.

**(3) Class three:**

- C (a) Failure to label one container or tank in which used oil was accumulated on site, when there are five or more present, with the required words "used oil."



**ENVIRONMENTAL CLEANUP**  
**(OAR 340-012-0073)**

**Violations of ORS 465.200 through 465.420 and related rules or orders pertaining to environmental cleanup shall be classified as follow:**

**(1) Class One:**

- a/b (a) Violation of a requirement or condition of a Commission or Department order;
- A/B<sup>11</sup> (b) Failure to provide access to premises or records when required to do so by law, rule, permit or order;
- A (c) Any violation related to environmental investigation or cleanup which causes a major harm or poses a major risk of harm to public health or the environment.

**(2) Class Two:**

- B (a) Failure to provide information under ORS 465.250;
- B (b) Any violation related to environmental investigation or cleanup which is not otherwise classified in these rules.

### 3. *No-Penalty Justifications & Penalty Justifications*

The Tables in the *Guidance* are designed to ensure that DEQ address important violations with the right amount of agency process and to allocate the agency's enforcement resources. This is the way DEQ creates a consistent, agency-wide, multi-region strategy for the various violations. The Tables indicate what staff are to consider in deciding whether to refer a violation for enforcement. Most have some room for regional discretion on certain factors. Use those factors. However, deviation may be appropriate in *exceptional* circumstances not anticipated by the *Guidance*. The inspector may draft a "**No-Penalty Justification**" memo to avoid referring an violation which the guidance directs to be referred. The inspector may also draft a "**Penalty Justification**" to refer a violation which otherwise would be a "B" response.

The justification memo must summarize the facts and the particular circumstances that led you to believe that DEQ should deviate from the *Guidance*. Once that justification is routed to and approved by your Manager, Regional Administrator, and the Administrator of the Office of Compliance and Enforcement, you may take the approved action. Do not send the NON until you have received that approval. Each regional manager is sent copies of your memo and likely keeps a notebook of past justifications in case you want to see what was done in prior circumstances.

#### E. ENFORCEMENT LANGUAGE FOR NOTICES OF NONCOMPLIANCE

##### 1. *NONs Related to Civil Penalties and Orders*

###### *"A" Response*

Response "A" informs the violator that the violation is being referred to the Office of Compliance and Enforcement with a recommendation that a civil penalty be assessed. Incorporate the following language into the NON:

*This is a Class \_\_ violation and is considered to be a serious violation of Oregon environmental law. Therefore, we are referring this violation to the Department's Office of Compliance and Enforcement with a recommendation to initiate a formal enforcement action. A formal enforcement action may include a civil penalty assessment for each day of violation.*

If the violation is for operating without a permit, and the source needs to obtain a permit for continued operation, and the Department chooses to enter into an agreement giving the source authorization to operate during the period it takes to get the permit, include the following language as part of the NON:

*The formal enforcement action will consist of a Mutual Agreement and Order (MAO) which will include an upfront civil penalty for the past violations and an Order from the Environmental Quality Commission outlining the conditions and*

*restrictions under which you will be allowed to continue operating during the time it takes to obtain a valid permit. The MAO will also stipulate daily penalties for violations of that Order.*

A violation that receives an "A" response may be sent an NON with the "B" response if a "No Penalty Justification" is completed according to page \_\_ above.

### **"B" Response**

Response "B" informs the violator that, if particular steps are not taken to correct the violation, the violation will be referred to the *Office of Compliance and Enforcement* with a recommendation that a civil penalty be assessed.

If the violator has not yet received a first NON for this violation, the NON should set forth a specific schedule to bring the violator into compliance, (or, if this is a one-time event, use the alternative language included below) and state:

*This is a Class I (or II) violation and is considered to be a significant violation of Oregon environmental law. Should you fail to correct the violation in accordance with the schedule set forth above [or: "should a similar violation occur"], we will refer your file to the Department's Office of Compliance and Enforcement with a recommendation to proceed with a formal enforcement action which may result in a civil penalty assessment. Civil penalties can be assessed for each day of violation.*

If the violator already received the "B" response NON, and repeated the violation or did not comply with the schedule set forth in that NON, the violator should be sent an "A" response NON and referred for enforcement.

A violation that receives an "B" response may be sent an NON with the "A" response if a "Penalty Justification" is completed according to page \_\_ above.

### **"a/b" and "A/B" Responses**

Choose either an "A" response or a "B" response depending on the surrounding circumstances. Refer an "a/b" response for enforcement if:

- there was serious environmental harm;
- the violation was done willfully; or
- the violator received a previous NON for the same violation.

If "A/B#" is capitalized with a superscripted number, refer to the more specific guidance notes below, which correspond to the superscripted number:

- (1) Use the "A" response unless the source files a timely permit application with fees that include the appropriate late filing fee and all four of the criteria below are met:

- (a) Actual emissions from the source are *de minimis*, although it must obtain a permit due to other requirements. "*De minimis*" is defined as equal to, or less than: 2.0 tons per year of any combination of particulate emissions; 5.0 tons per year of any combination of all criteria and toxic pollutants; or 20% of the Significant Emission Rate (SER), or Interim Toxic SER, of any individual pollutant; and
- (b) The source caused no or negligible environmental impacts by operating without a permit; and
- (c) The source has not previously held an air discharge permit; except for those situations where the Department has previously advised the source that a permit was no longer necessary and, based on this advice, the source cancelled its permit; and
- (d) The only significant economic gain to the company for operating without a permit was the avoidance of permit and compliance determination fees.
- (2) "A" response if Prevention of Significant Deterioration (PSD) or New Source Review (NSR) is violated, otherwise "B" response.
- (3) "A" response if in violation of a permit, otherwise "B" response.
- (4) "A" response if more than 5% of an individual data parameter required for a 6-month report of continual compliance is missing, and there is no way to reconstruct that the source was in compliance during the period of the missing data. "B" response if 5% or less of an individual data parameter required for a six-month report of continual compliance is missing. "B" response if more than 5% of an individual data parameter required for a six-month report of continual compliance is missing, but other parameters or reconstructed data and show that the source was in compliance, and the permittee provides adequate justification for missing data – for missing data of more than 5%, if other parameters or reconstructed data show noncompliance, the enforcement response should match the underlying violation. (note: the 5% of missing data applies on top of whatever percentage of data capture is required by permit to report continual compliance.)
- (5) "A" response if the source is under a permit or environmentally sophisticated, otherwise the "B" response.
- (6) "A" response if a semi-annual compliance certification is 60 or more days late, or was never submitted, or has not been submitted in accordance with a previous NON citing a late report, or remains incomplete beyond a deadline set in a previous NON; "B" response if the semi-annual compliance certification is less than 60 days late or arrives timely but is incomplete.

- (7) "A" response if the source does not submit the renewal application according to the NON schedule or submits the application more than 60 days beyond the initial due date. "B" response if the source is late by 30 days or less, or if the source is late for the first time and is no more than 60 days late. Otherwise "A/B" response.
- (8) "A" response when the contractor is more sophisticated, and has some knowledge that it may be dealing with asbestos. "B" response when the contractor is less sophisticated (*e.g.*, a handyman not licensed, and need not be licensed by the Contractors Board).
- (9) "B" response if all the following are met:
- (a) Less than one cubic yard of prohibited materials were ignited; and
  - (b) The open burning did not appear to have adverse impacts, that is, either:
    - (i) DEQ, fire department, or other agencies did not receive multiple complaints about the burn, or
    - (ii) The open burn did not create a nuisance in that it substantially and unreasonably interfered with nearby neighbors or persons with respiratory condition use and enjoyment of their real property; and
  - (c) The person who conducted the open burning has not been previously informed of the open burning rules verbally or in writing by the DEQ, fire department, or other agencies or sources;
  - (d) The person responsible for the open burning was cooperative, that is, both
    - (i) The person was forthright with information about the open burn, and clearly understands how the open burning rules apply to their actions in the future if applicable, and
    - (ii) The person attempted to extinguish the fire or allowed the fire department to extinguish the fire if applicable; and
  - (e) The open burn was a residential open burn, that is, all the following apply:
    - (i) The open burn occurred at a dwelling of four or fewer family living units, and
    - (ii) The open burn was conducted by, or at the direction of a household member, and
    - (iii) The prohibited materials were generated in or around the dwelling.
- (10) "A" response if the person was previously licensed or permitted, previously sent a NON for operating without a license or permit, or if the violator caused environmental harm. Otherwise use a "B" response giving the violator a reasonable deadline to obtain the license or permit considering potential classes or examinations. Enclose the necessary application forms with the NON. If the violator does not get licensed or permitted by the date indicated, refer the initial violation to Enforcement for a civil penalty.

- (11) "A" response if the person denying access was in a position of authority and was informed by a DEQ representative that permitting access to DEQ was required by statute, rule, permit, or order. "B" response in all other circumstances.
- (12) "A" if violation of a permit and either: there was serious environmental harm; the violation was done willfully; or the violator received a previous NON for the same violation. Otherwise "B."
- (\*) "A" response when contractor is more sophisticated (*e.g.*, is or should be licensed by the Construction Contractor's Board) and has some knowledge that is may be dealing with asbestos, otherwise "B" response.

- (13) For violations related to construction stormwater:

No NON if the permittee installed all proper controls in accordance with the permit, adequately maintained the storm water drainage system consistently, the erosion control system failed due to severe weather conditions, and discharge of turbid water from the site was beyond the reasonable control of the permittee (*see* page \_\_ for a definition of "beyond the reasonable control"). Instead, send a *letter* suggesting improvements which are designed to prevent discharges in the future. You may want to include a schedule for implementation of such improvements if you feel such action is warranted by the nature of the incident.

"B" response if the permittee installed all proper controls in accordance with the permit, the erosion control system failed because of inadequate maintenance, and resulted in a discharge of turbid water from the site. Use "A" response if the violation resulted in extreme environmental damage due to negligent maintenance.

"A" response for the unauthorized discharge if the permittee installed controls improperly, failed to maintain the system adequately, resulting in a system failure and a discharge of turbid water from the site into waters of the state.

"B" response if the permittee has not registered for the NPDES 1200-C and there has not been any discharge to waters of the state. Include in the NON any needed steps regarding the erosion control plan, erosion controls, and maintenance.

- (14) In the case of a spill or discharge in violation of an individual permit or without an individual permit use "A" response unless the spill or discharge was beyond the reasonable control of the violator.

"Beyond the reasonable control" means: (1) an act of war or sabotage or an act of nature, (2) negligence on the part of the state or federal government, (3) an act or omission of a third party without regard to whether any such act or omission was or was not negligent, or (4) the spill or discharge could not have been reasonably anticipated or prevented.

There is no easy black-and-white definition for the key word "reasonable." You must use your expertise in the technology and good judgment in examining the specific facts and the specific circumstances of each case to determine whether the violator could have reasonably prevented the violation. In making your determination, you should consider the probability that the violation would occur and the gravity of the violation if it did occur. Examples of previous cases where the Department has refrained from Enforcement include an accidental minor discharge to water resulting from a vehicle accident where no one was cited with negligence and a small discharge of sewage resulting from an extreme storm event. If there is a question about whether a violation was beyond the reasonable control of the violator, the staff person should elevate the decision to the manager or seek guidance from the Office of Compliance and Enforcement.

- (15) "A" response if the disposal system is installed without the permit. Otherwise "B."
- (16) "A" response if significant modification that might impact the facility's ability to effectively meet permit requirements. Otherwise "B."
- (17) "B" response unless operating without a general permit. In the case of operating without a general permit, and the general permit covers the activity at issue, use the "A" response if any of the following apply: (1) the discharge caused serious environmental harm, (2) the violator was willful, (3) the source should have known it needed a permit because it received a previous NON for the same violation. Otherwise, use a "B" response giving the violator 15 days to submit a general permit application and fee.
- (18) "B" response if the violation is caused by the property owner. "B" response if the violation is caused by a licensed installer who immediately obtained the permit after being notified of the violation and this installer has not received a prior NON for installing or repairing without a permit. Otherwise "A" response.
- (19) "A" response when the violator accepts a significant amount of solid waste from the public for a fee. "B" response when an individual establishes a solid waste dump on his or her own property. "B" response when a routine solid-waste transfer station operates under an expired permit – give 30 days to file a new permit application, and treat the application as a request for a new permit requiring fees, documents, and public notice.
- (20) "A" response if the landfill was not constructed or operated to applicable Department standards. Otherwise "B" response.
- (21) "A" response when the violator is acting like a TSD (*e.g.*, accepting hazardous waste from generators and treating, storing or disposing of the waste). "B" response when the violator is a generator operating without a permit by storing hazardous waste and failing to meet 40 CFR § 262.34 storage requirements.

- (22) "A" response if accepting the waste was part of a commercial venture, the person accepting the waste knew or should have known of the requirement, or if the volume of the waste was large. Otherwise "B."
- (23) "A" response if containers are greater than 50 gallons in size. "B" response if containers are less than 50 gallons in size.
- (24) "B" response if the issue is merely open containers. Otherwise "a/b."
- (25) "A" response if facility is used oil transporter, transfer facility, processor, re-refiner or burner. Otherwise "B" response.
- (26) "A" response if facility is used oil processor, re-refiner or burner. "B" response if facility is used oil transfer facility.

### ***"C" Response***

Response "C" is for Class III violations. It is an escalating response based on the number of previous NONs.

#### ***a. For the First and Second NONs***

*This is your first [or second] Class III violation. The Department requests your cooperation in ensuring this violation does not recur. Violations of Oregon environmental law are subject to civil penalties for each day of each violation.*

#### ***b. For the Third NON***

*This is your third Class III violation of Oregon environmental law. Should you again have a similar violation, we may refer your file to the Department's Office of Compliance and Enforcement with a recommendation to proceed with formal enforcement action which may result in a civil penalty assessment. Violations of Oregon environmental law are subject to civil penalties for each day of violation.*

#### ***c. For NONs Citing Referral to Enforcement.***

Use one of the two alternatives below for the fourth Class III violation.

#### **Option 1:**

*This is your fourth Class III violation of Oregon environmental law. The Department requests that by [insert date], you submit a written report, detailing*



*how you intend to correct this violation. Should the Department not receive a satisfactory report by the date indicated, we will refer your violation to the Department's Office of Compliance and Enforcement with a recommendation to proceed with a formal enforcement action, which may result in a civil penalty assessment. Civil penalties can be assessed for each day of violation.*

Option 2:

*This is your fourth Class III violation of Oregon environmental law. We are referring your violation to the Department's Office of Compliance and Enforcement and recommending formal enforcement action including a civil penalty assessment. Civil penalties can be assessed for each day of violation.*

## **2. Related to Notices of Permit Violation**

### **"D" Response**

Response "D" is used for certain water quality sources (not NPDES nor UIC/WPCF) and solid waste permit violators (except Subtitle D) who have a documented Class I violation. Violations may be referred for civil penalty, pursuant to OAR 340-012-0040(2), if: (1) the violation is intentional, (2) the water would not normally occur for five consecutive days, or (3) the permittee has received an NPV or other formal enforcement action with respect to any violation of the permit within 36 months immediately preceding the documented violation. The NON should note that a civil penalty is possible if there has been a discharge of wastewater in violation of the permit (*see note below*). If a NPV has already been issued prior to this violation, see page 51 for guidance. Oregon Administrative Rules require that a NPV be issued for all documented Class I violations. Therefore, you must issue the Notice of Noncompliance (NON) and refer the case to the *Office of Compliance and Enforcement* for a NPV. Since a NPV requires the violator to respond within 5 days of receipt of the NPV with either certification of full permit compliance or a detailed plan, the language in the NON is designed to inform the permittee what it must do to comply with the NPV requirements and warn the violator of the upcoming 5-day deadline. Use the following language in the NON:

*As a result of the above documented Class I violation(s), we are referring your file to the Department's Office of Compliance and Enforcement with a recommendation to issue a Notice of Permit Violation (NPV). The NPV is a formal enforcement action which will require that you submit one of the following to the Department within 5 working days of its receipt:*

- 1. A written response certifying that the permitted facility is complying with all terms and conditions of the permit. This certification shall include a sufficient description of the information on which you are certifying compliance; or*

2. *If the permitted facility is not operating in compliance with the permit, you will be required to submit a written proposal to bring the facility into compliance with the permit and all applicable regulations which shall include at least the following:*
  - a. *A detailed plan and time schedule for achieving compliance in the shortest practicable time;*
  - b. *A description of the interim steps that will be taken to reduce the impact of the permit violation(s) until the permitted facility is in compliance with the permit; and*
  - c. *A statement that you have reviewed all other conditions and limitations of the permit and no other violations of the permit were discovered.*

*The purpose of the NPV is to ensure that the permitted facility is operating in compliance with all conditions and limitations of the permit, or to bring the permitted facility into compliance. We recommend that you begin preparations now to respond to the NPV. If you fail to respond to the NPV in the 5 day time frame, you will be assessed a civil penalty for the one or more violation(s) cited in the NPV.*

**NOTE:** If there has been a discharge into waters of the state from a discharge point not authorized by the permit, the Department may determine that a penalty should be issued in addition to, or in lieu of, the NPV. That decision will be made on whether the discharge was beyond the reasonable control of the violator (*see page 40*), the environmental sensitivity of the affected area, and the amount of the waste discharged. The decision to proceed with the civil penalty process will be made after the referral is submitted and the facts of the case are reviewed. In order to warn the violator of the potential referral for civil penalty in the case of discharge in violation of a permit, you should add the following paragraph to the NON:

*Your discharge in violation of the permit is also a violation of state law and may result in a civil penalty in addition to, or in lieu of, the NPV.*

### **"E" Response**

Response "E" is used when a violation of a permit is a Class II violation. Oregon Administrative Rules require the Department to issue a NPV to any permitted source that has received three NONs containing Class II violations of a permit in any 36-month period. You may recommend a NPV on a Class II violation before three NONs are issued if the violation needs a formal compliance schedule to resolve. For example, if a source with no prior permit violations causes a serious Class II permit violation because it lacks proper control equipment, then you may consider referring for a NPV to get it on a formal compliance schedule. However, if the violation is the result of failure to use the control equipment, you can consider a referral for civil

penalty without an NPV first since this is an intentional violation, which is exempted from the NPV.

Progressive NON language for the "E" response follows:

**a. For the First NON**

*The above violation is a Class II violation of your permit. Oregon Administrative Rule 340-012-0041(2)(c) provides that a permittee shall not receive more than three NONs for Class II violations of the same permit within a thirty-six (36) month period without being issued a more formal enforcement action called a Notice of Permit Violation (NPV). The Department may, however, issue a NPV prior to the third NON. The Department requests your cooperation in ensuring that this violation does not recur.*

**b. For the Second NON**

*This is your second Class II violation of your permit. Oregon Administrative Rule 340-012-0041(2)(c) provides that a permittee shall not receive more than three NONs for Class II violations of the same permit within a thirty-six (36) month period without being issued a Notice of Permit Violation (NPV). If additional Class II violations occur, we will be referring these violations to the Department's Office of Compliance and Enforcement for the issuance of a NPV. The NPV is a formal enforcement action that requires you to submit one of the following, within five working days of its receipt: (1) a certification of full compliance with all permit conditions; or (2) a detailed plan and time schedule demonstrating what steps will be taken to gain compliance, together with interim measures taken to reduce the impact of the violations, and a statement that the permittee has reviewed all of the conditions and limitations of the permit and is compliance with all other provisions.*

**c. For the Referral NON**

*This is your third Notice of Noncompliance for a Class II violation of your permit in the previous thirty-six (36) months. Pursuant to Oregon Administrative Rule 340-012-041(2)(c) your file is being referred to the Department's Office of Compliance and Enforcement for issuance of a Notice of Permit Violation (NPV). The NPV is a formal enforcement action which will require that you submit one of the following to the Department within 5 working days of its receipt:*

1. *A written response certifying that the permitted facility is complying with all terms and conditions of the permit. This certification shall include a sufficient description of the information on which you are certifying compliance; or*
2. *If the permitted facility is not operating in compliance with the permit, you will be required to submit a written proposal to bring the facility into compliance with the permit and all applicable regulations which shall include at least the following:*
  - a. *A detailed plan and time schedule for achieving compliance in the shortest practicable time;*
  - b. *A description of the interim steps that will be taken to reduce the impact of the permit violation(s) until the permitted facility is in compliance with the permit; and*
  - c. *A statement that you have reviewed all other conditions and limitations of the permit and no other violations of the permit were discovered.*

*The purpose of the NPV is to ensure that the permitted facility is operating in compliance with all conditions and limitations of the permit, or to bring the permitted facility into compliance. We recommend that you begin preparations now to respond to the NPV. If you fail to respond to the NPV in the 5 day time frame, you will be assessed a civil penalty for the one or more violation(s) cited in the NPV.*

### ***"F" Response***

Response "F" is used when the violation of the permit is a Class III violation. Oregon Administrative Rules state that Class III violations that are repeated or continuing shall also receive a NPV.

Progressive NON language for the "F" response follows:

#### ***a. For the First, Second and Third NONs***

*The above violation is a Class III violation. Oregon Administrative Rules provide for more formal enforcement action, called a Notice of Permit Violation, for repeated or continuous Class III violations. The Department requests your cooperation in ensuring that this violation does not recur.*

#### ***b. For the Fourth NON***

*This is your fourth Class III violation. Oregon Administrative Rule 340-012-0041(2)(c) provides that a permittee will receive a Notice of Permit Violation (NPV) for repeated or continuous Class III violations. If additional Class III violations occur, we will be referring these violations to the Department's Office of Compliance and Enforcement for the issuance of a NPV. The NPV is a formal enforcement action that requires you to submit one of the following, within five working days of its receipt: (1) a certification of full compliance with all permit conditions; or (2) a detailed plan and time schedule demonstrating what steps will be taken to gain compliance, together with interim measures taken to reduce the impact of the violations, and a statement that the permittee has reviewed all of the conditions and limitations of the permit and is compliance with all other provisions.*

**c. For the Referral NON**

*This is your fifth Notice of Noncompliance for a Class III violation of your permit in the previous thirty-six (36) months. Pursuant to Oregon Administrative Rule 340-012-0041(2)(c) your file is being referred to the Department's Office of Compliance and Enforcement for issuance of a Notice of Permit Violation (NPV). The NPV is a formal enforcement action which will require that you submit one of the following to the Department within 5 working days of its receipt:*

- 1. A written response certifying that the permitted facility is complying with all terms and conditions of the Permit. This certification shall include a sufficient description of the information on which you are certifying compliance; or*
- 2. If the permitted facility is not operating in compliance with the permit, you will be required to submit a written proposal to bring the facility into compliance with the permit and all applicable regulations which shall include at least the following:*
  - a. A detailed plan and time schedule for achieving compliance in the shortest practicable time;*
  - b. A description of the interim steps that will be taken to reduce the impact of the permit violation(s) until the permitted facility is in compliance with the permit; and*
  - c. A statement that you have reviewed all other conditions and limitations of the permit and no other violations of the permit were discovered.*

*The purpose of the NPV is to ensure that the permitted facility is operating in compliance with all conditions and limitations of the permit, or to bring the permitted facility into compliance. We recommend that you begin preparations*

now to respond to the NPV. If you fail to respond to the NPV in the 5 day time frame, you will be assessed a civil penalty for the one or more violations cited in the NPV.

### **3. Related to Post-NPV Violations**

**Referred Violations** – If a violation occurs after a Notice of Permit Violation (NPV) has been issued, refer the violation if it meets one of the following four criteria:

**If it is a Class I violation.** In the NON, use language similar to the following:

*This is a Class I violation of your permit, and is considered to be a serious violation of Oregon environmental law. Because you received a Notice of Permit Violation, Case No. \_\_\_-\_\_\_-\_\_\_, within the last 36 months, we are referring this violation to the Department's Office of Compliance and Enforcement with a recommendation to proceed with a formal enforcement action which may result in a civil penalty assessment. Civil penalties can be assessed for each day of violation.*

**If it is a major magnitude Class II violation** (refer to selected magnitudes contained in OAR 340-012-0090, or OAR 340-012-0045(1)(a)(ii)(A)).

**If the new violation has the same origin as a violation for which the NPV was issued or which was addressed in a prior NON leading up to the NPV.** For example, refer for penalty if the violation cited in the NPV was high opacity emission and the current violation is high opacity emission, and both are due to a continuing failure of the baghouse. An example of applicable NON language is:

*This is a Class II violation of your permit. Because you received a Notice of Permit Violation, Case No. \_\_\_-\_\_\_-\_\_\_ within the last 36 months, and this violation is considered to be a significant violation of Oregon environmental law, we are referring this violation to the Department's Office of Compliance and Enforcement with a recommendation to proceed with a formal enforcement action which may result in a civil penalty assessment. Civil penalties can be assessed for each day of violation.*

**If the new violation involves documented noncompliance with a plan the violator had sent in response to the NPV if DEQ approved the plan subject to the compliance schedule.** (e.g., if a violator sent in a plan in response to an NPV, and DEQ approved the plan subject to having a drainfield installed by 11/1/95, and on 11/15/95 DEQ documents that the violator has not installed the drainfield, refer the violation for enforcement.) An example of the NON language would be:

*In response to Notice of Permit Violation, Case No. \_\_\_\_-\_\_\_\_-\_\_\_\_ you provided the Department with a plan to come into compliance with the terms of your permit. This plan was accepted by the Department contingent upon meeting the schedule contained therein. The compliance date described above has not been met. Because you failed to meet the compliance schedule in the approved plan, we are referring this violation to the Department's Office of Compliance and Enforcement with a recommendation to proceed with a formal enforcement action which may result in a civil penalty assessment. Civil penalties can be assessed for each day of violation.*

### ***Progressive NONs for New Class II Violations***

All other Class II violations (minor and moderate magnitude) should not be referred to the *Office of Compliance and Enforcement*, unless there are extenuating circumstances. In deciding whether extenuating circumstances justify referral for enforcement, consider all relevant factors including the significance of the violation, whether the violator acted intentionally, and the compliance history of the violator. These violations should be addressed with progressive NONs which incorporate the following language:

#### ***1. For the First NON:***

*The above is a Class II violation. The Department requests that you immediately address this violation with a corrective action plan which you should submit to the Department by \_\_\_\_ [insert date] in order to insure that the violation does not recur. You should be aware that within the last 36 months the Department has issued a Notice of Permit Violation (Case No. \_\_\_\_-\_\_\_\_-\_\_\_\_). If the Department does not receive a plan to correct this violation or documents continuing violations of the permit, the violation(s) will be referred to the Office of Compliance and Enforcement with a recommendation to proceed with a formal enforcement action which may result in a civil penalty assessment. Civil penalties can be assessed for each day of violation.*

#### ***2. For the Referral NON:***

*This is the second Class II violation of your permit since you were issued a Notice of Permit Violation, Case No, \_\_\_\_-\_\_\_\_-\_\_\_\_. Therefore, we are referring this violation to the Department's Office of Compliance and Enforcement with a recommendation to proceed with a formal enforcement action which may result in a civil penalty assessment. Civil penalties can be assessed for each day of violation.*

### ***Progressive NONs for Class III Violations***

After the issuance of a NPV, Class III violations should be referred to the *Office of Compliance and Enforcement* for the assessment of a civil penalty when the Region determines that the source is a chronic Class III violator. These violations should be sent an escalating response as follows:

**1. For the First NON:**

*This is a Class III violation of your permit. The Department requests that you address this violation so that it does not recur. You should be aware that within the last 36 months the Department has issued you a Notice of Permit Violation (Case No. \_\_\_-\_\_\_-\_\_\_). The Department requests your cooperation in ensuring this violation does not recur. Should the Department document continuing violations of this permit, the violation(s) will be referred to the Office of Compliance and Enforcement with a recommendation to proceed with a formal enforcement action which may result in a civil penalty assessment. Civil penalties can be assessed for each day of violation.*

**2. For the Second NON:**

*The above is a Class III violation. The Department requests that you immediately address this violation with a corrective action plan which you should submit to the Department by \_\_\_ [insert date] in order to insure that the violation does not reoccur. You should be aware that within the last 36 months the Department has issued a Notice of Permit Violation (Case No. \_\_\_-\_\_\_-\_\_\_). If the Department does not receive a plan to correct this violation or documents continuing violations of this permit, the violation(s) will be referred to the Office of Compliance and Enforcement with a recommendation to proceed with a formal enforcement action which may result in a civil penalty assessment. Civil penalties can be assessed for each day of violation.*

**3. For the Referral NON:**

*This is an ongoing Class III violation of your permit since you were issued a Notice of Permit Violation, Case No. \_\_\_-\_\_\_-\_\_\_. Therefore, we are referring this violation to the Department's Office of Compliance and Enforcement with a recommendation to proceed with a formal enforcement action which may result in a civil penalty assessment. Civil penalties can be assessed for each day of violation.*

**F. NON FOLLOW-UP COMMUNICATIONS**

**1. Response to Notice of Noncompliance**



This letter is sent when the source/RP asserts that they have taken action to comply or correct the violation(s) cited in the NON, but the Department does not have independent information, such as that obtained through an inspection, corroborating the source/RP's assertion that it is in compliance or has corrected the violation. A template for this can be found in Word; click "File" on the menu bar, then click "New", choose the "DEQ - Enforcement" tab. The document is called "NON Response.doc"

## ***2. Confirmation of Compliance***

This letter is sent when the submission by the source/RP in and of itself constitutes compliance. For example, the Department issues an NON for failing to submit a required UST decommissioning report and then the source/RP responds by submitting the report. You may also send a confirmation of compliance when the violator corrects the violation and comes into compliance to let the violator know that the issue is closed. A template for this can be found in Word: click "File" on the menu bar, then click "New", choose the "DEQ - Enforcement" tab. The document is called "NON Confirmation of Compliance.doc"

## ***3. Amendment or Withdrawal of Allegation or Notice of Noncompliance***

If, for some reason (*e.g.*, new information, additional discussion about statute, rule, permit or order interpretation) you discover that one or more of the violations you alleged in an NON had actually not occurred, send a Withdrawal of Allegation to document for the NON recipient that the issue is closed. A template for this can be found in Word ; click "File" on the menu bar, then click "New", choose the "DEQ - Enforcement" tab. The document is called "NON Amended or Withdrawn.doc"

## V. THE REFERRAL FORM

### A. FINDING THE TEMPLATE

Referrals for formal enforcement are made by submitting to the Office of Compliance and Enforcement a hard copy of a Referral Form and attaching information related to the case. Some kinds of information must be included in every referral for every program area. Additional information must be provided in some program areas.

*Select a Template* – To upload a referral template, click “File” on the menu bar, then click “New”. Click on the template best fitting the program in which the referral is to be made.

*Fill in information* – The template is a fill-in form. It is protected against changes to any text that is not a fill-in field. Press <Tab> to move to each fill-in field. Note: Use <Ctrl> <Tab> if you want to tab within the fill-in field. Wait until the fill-in field is highlighted before typing. It may take a few seconds because the template is being updated wherever a particular field is repeated throughout the document or a calculation is being performed. Skip any optional fields that are not applicable.

*Unprotect Document to make changes to standard text* – After all applicable fields have been filled in, click “Tools” on the menu bar; click “Unprotect Document”. Delete any optional text that is not pertinent and make formatting changes if necessary.

*Save Document* – Click File on the menu bar. Click “Save As” and save document in your home directory on the E: drive

### B. FILLING OUT THE FORM

*1. Cover Page* – The cover page includes information identifying the person being referred, and some information about location and permit status. Check the box if there is a significant ongoing threat to public health or the environment. Check the box if you are designating, or know that DEQ has designated, the facility as a significant noncomplier (SNC) (*see* Appendix \_\_\_ for the hazardous waste SNC determination; Appendix \_\_\_ for the water-quality SNC determination) or a high-priority violator (*see* Appendix \_\_\_ for the air quality HPV determination). Fill out that information and indicate what action you anticipate should be issued. Mark the boxes indicating what evidence you are attaching to the referral in support of the violations. Sign the referral, have it signed by your manager and Regional Administrator, and send it to Deborah Nesbit in the Office of Compliance and Enforcement located in the NWR Building along with the attachments. The bottom half of the cover page will be filled out by Enforcement and returned to you indicating a case number and responsible Environmental Law Specialist assigned to your case.

**2. Timeliness Form** – The second page of the referral is a timeliness form designed to track the progress of case preparation. Fill in those blanks related to your work. These include:

- *Initial Discovery/Inspection*, which is the date DEQ first learned of the potential violation.
- *Investigation Completed*, which is the date that all the information is in place to make a strong enforcement case. This date will start the 55-day timeliness clock.
- *Notice(s) of Noncompliance Sent*. More than one NON may be issued during an investigation, but at least one NON should have been sent by 10 days after the investigation is completed. If the case is being referred for formal enforcement, an NON should state that fact. If an NON issued during the investigation stage already notified the violator that the case is being referred, then no new final NON is necessary. If a violator fails to meet a deadline given in an initial NON, the violator should be send a second NON that states the case is being referred to Enforcement.
- *Referral Sent to Office of Compliance and Enforcement*. Investigation staff work toward the completion of a referral form by the 25th day from the end of the investigation stage. Before the Office of Compliance and Enforcement can begin working toward taking formal enforcement action, all the elements of the case must be forwarded to the Section using the appropriate referral form.

In filling out the Timeliness Sheet, identify the indicated landmark dates and specify any circumstances that led to delays. Some of these may include: (1) *Competing priorities*, e.g., responding to spills, attention to a critical permit, follow-up to a high-priority complaint, or follow-up activities to other enforcement actions such as settlement meetings, contested-case hearings, or verification of violator compliance. (2) *Documentation Limitations*, e.g., waiting for hazardous-waste determinations or laboratory results before determining whether a violation has occurred; dependence upon interpretation or coordination with other DEQ divisions, or agencies; dependence upon an a imposed schedule like review of Daily Monitoring Reports which may be only reviewed on a quarterly basis. (3) *Personnel Limitations*, e.g., loss of personnel work-time due to retirements, vacations, or sick leave, which cause other staff to pick up the additional workload. Another example is tilted resources where the field staff grows disproportionately compared to the Office of Compliance and Enforcement.

Once the Referral Form is received, it will be assigned to one of the Environmental Law Specialists (ELS) in the Office of Compliance and Enforcement. That ELS will review the evidence and law to verify that there is sufficient information available on which to pursue enforcement action. The ELS will work with you to identify any additional information needed. The ELS will complete the remainder of the Timeliness Sheet and send a copy to you for your files when the formal documents are issued. The ELS will also track the timeliness of the follow-up activities to the case and will send you a Case closure sheet once the case is concluded.

**3. Significant Noncompliers & High Priority Violators** – EPA and DEQ specially track the progress of enforcement and return to compliance for certain violators falling into our definitions of “significant violator” in water quality and hazardous waste and “high priority violator” in air quality. [NEED UPDATED INFORMATION ON DECISION TREE AND TRACKING]

**4. Answering the Questionnaire** – The questions in the questionnaire are self-explanatory. Below is some detail on selected questions.

*Who is the responsible party* – please record as much detail as you know to assist the ELS in determining which party to cite. If an individual seems to be doing business under an assumed business name, please record both the name of the individual and the name of the business so we can check to see if there is corporation, partnership or other entity.

*In general, what are the violations* – Give a brief explanation in general layman' s terms.

**5. Economic Benefit** – One common delay in a case referred for enforcement is waiting for information needed to calculate *economic benefit*. As part of a penalty, DEQ will assess an amount equal to the dollar value of what the violator should have spent to be in compliance. This is necessary to (1) "level the playing field" by taking away any economic advantage the violator gained over its competitors through noncompliance, and (2) ensure that potential violators are deterred from deciding it is cheaper to violate and pay the penalty than to pay the costs of compliance.

Costs can be generally separated into two categories: (1) avoided costs, *e.g.*, avoided permit fees; costs of installing and operating pollution control equipment; and the cost of lawful disposal instead of illegal dumping, discharges, or open burning. (2) Delayed costs, *e.g.*, if an air quality source failed to apply for a necessary 5-year permit last year, but will apply this year, the source obtained the economic benefit of gaining interest on the application fee money for one year.

DEQ calculates economic benefit using EPA's "BEN" computer model, which considers interest rates, tax rates and other factors in determining an estimated benefit. In order make these calculations, Enforcement needs to have the estimated information below:

1. A description of the cost (*e.g.*, permit fee, new arc furnace).
2. The month and year when the violator should have spent the money or when the violator began being out of compliance.
3. The estimated annual cost of maintaining or fueling the equipment, if any.
4. The month and year when the violator will come into compliance.
5. The month and year the violator will pay the penalty if known.

Please include the above information on the referral form under the question that asks about economic benefit.

## VI. FORMAL ENFORCEMENT: WHAT TO EXPECT

### A. CASE REVIEW AND DOCUMENT DRAFTING

The Environmental Law Specialist assigned to the case will try to make a quick review of the referral and the evidence you provided to determine whether anything more is needed. Depending on caseload, the ELS will try to contact you within a few days to briefly discuss the case and give you an estimate of when he or she will be able to do the drafting. Once the ELS begins to work on the case, he or she will evaluate whether: (1) the law and evidence exist to be reasonably sure we can prove the violations alleged, (2) there are other violations not addressed by the referral – especially secondary media issues, and (3) there is economic benefit, and whether the information provided can be used to calculate a reasonable estimate.

The ELS will draft the formal enforcement documents after reviewing your referral, the evidence and NONs, background and related enforcement files, and after discussing any consistency issues with other enforcement staff. The formal documents will often be of three parts:

- The **cover letter** explains in layman's terms what information we have that the violations occurred, why those violations are important to the environment, what needs to be done to correct the violations, the conditions of any attached order, a brief statement of the penalty and appeal process. You should work with the ELS if there is special or particular information you want to see incorporated into the cover letter. The cover letter is the document most likely to be picked up by the media and so should explain well why we are taking an action.
- The **Notice and/or Order** is the legal instrument used to initiate the formal enforcement process and will state DEQ's legal authority for the action, may give a list of findings, will state DEQ's basic allegations supporting the conclusion that a violation occurred, and will provide notice about the respondent's appeal rights. The Order will be a statement of the schedule DEQ expects the respondent to follow to reach compliance or to mitigate the violations. Conditions for the order will normally be drafted by the region and reviewed for enforceability by the ELS.
- The **Exhibits** may demonstrate how the penalty is calculated, and will provide notice about the appeal process.

Once the ELS has finished putting together the case and completed an initial draft of the case, the ELS will send the documents to you for review and approval. Read the documents sent to you carefully and let the ELS know if there are any statements or facts that differ from your information or recollection. If you are not satisfied with any aspect of the documents and are unable to reach consensus with the ELS, we will set up a discussion with you, your manager, the ELS, and the Enforcement Policy Advisor to discuss. After you and your manager have signed off, the ELS will have the Administrators from your Region and the Office of Compliance and review, comment and approve. After everyone has had an opportunity to comment, the ELS will prepare the documents for the Director's signature.

## B. PENALTIES

Most cases referred for formal enforcement will receive some penalty for one or more of the violations. The dollar value will depend on a variety of factors and cannot be easily estimated without careful consideration of the facts. For this reason, DEQ staff should not inform a violator about the size of a penalty until the Director approves that penalty.

**1. Basic Penalty Calculation** – A number of factors go into the calculation of the penalty. The factors are specified in a formula in the rules at OAR 340-012-0045(1). When you receive a draft civil penalty assessment to review, examine the Exhibits where the ELS will have spelled out our evidence on the formula factors. That formula is

Penalty = BP + [(BP x 0.1) x (P + H + O + R + C)] + EB where:

**BP** is the base penalty and is determined by the Class and magnitude of the violation and the program in which the violation occurred. “Class” is a designation by rule of the potential importance of the rule or statute violated to the environment or to the regulatory system, as previously discussed in section \_\_\_\_\_. “Magnitude” is a finding related to the significance of a particular violation event. Magnitude ranges from minor (least significant) to major (most significant). If a magnitude is not specified, it is generally moderate magnitude. In unusual circumstances where there was no potential environmental impact, the Department may make a finding of minor. If there was significant environmental impact, the Department may make a finding of major magnitude. Once Class and magnitude are determined, a base penalty is determined according to penalty matrices in OAR 340-012-0042. Which matrix applies will depend on the program in which the violation occurred. Most violations in the federally-delegated programs (*e.g.*, air permitting, water permitting, hazardous waste) are subject to a matrix with a maximum \$6,000 BP. If the violation is for open burning or on-site sewage, the \$2,500 maximum BP matrix will apply. Residential burning violations are assessed penalty under the \$1,000 matrix.

**P** is an aggravating factor based on the person’s past history of compliance or noncompliance as measured by the number of respondent’s prior significant actions in formal enforcement actions.

**H** is a mitigating factor based on the person’s past history of cooperation in correcting violations cited in past enforcement actions.

**O** is an aggravating factor concerning whether the violation was a one-time event or was repeated or continuous for more than one day.

**R** is an aggravating factor based on the mental state of the alleged violator in committing the violation (*i.e.*, accident or unknown mental state, negligent, intentional, or flagrant).

C is the cooperativeness of the violator in correcting the violation, minimizing the effects of the violation, or taking extraordinary steps to ensure the violation is not repeated. The penalty may be decreased because of cooperative behavior or increased due to uncooperative behavior of the respondent in correcting the violations. Everyone is entitled to an appeal so an appeal in itself is not uncooperative.

EB is the economic benefit in monetary terms that the violator gained by not complying with the law. See above at section \_\_\_ for a discussion of economic benefit.

**2. Alternative penalties –**

- (1) A penalty for the spill of oil will be doubled pursuant to OAR 340-012-0042(2) if caused through an intentional or negligent act, and may include a natural resources damages assessment pursuant to OAR 340-012-0049(1).
- (2) A hazardous waste violation that causes contamination may receive a natural damages assessment. OAR 340-012-0049(6).
- (3) A violation which creates an imminent likelihood for extreme hazard to public health or causes extensive damage to the environment may be assessed a penalty of \$50,000 if done recklessly, \$75,000 if done intentionally, or \$100,000 if done flagrantly. OAR 340-012-0049(7).
- (4) Another alternative is for DEQ to refer a violation for investigation as a potential crime (see section \_\_\_ below).

**3. Multiple penalties in one action –** DEQ may issue penalties on more than one violation or more than one day of violation if either of those circumstances exist. In making a determination in each case, Enforcement will consult with you in applying the following principles:

- 1) Single transgressions occurring on a single day that violate more than one law or rule citation should not be assessed more than one penalty. See the discussion of duplicative and cascading violations at page \_\_\_.
- 2) DEQ will consider assessing a penalty based on economic benefit of noncompliance whether or not DEQ also assesses a class and magnitude based penalty.
- 3) In deciding whether to assess separate class and magnitude based penalties for more than one violation or day of violation, DEQ will consider whether:
  - a) The violations separately had the potential to cause significant adverse impacts to the environment or posed significant threats to public health.
  - b) The violations were caused through flagrant or willful action.
  - c) The violations are chronic and prior formal or informal action by the Department has not resulted in compliance, or the violator has demonstrated recalcitrance.
  - d) The violator appears to have had sufficient financial resources and expertise available to avoid the violation, and the violations therefore appear negligent.

### C. ISSUING THE DOCUMENTS

Enforcement will generally serve the documents by certified mail to a natural person or to the registered agent of corporation. Occasionally, we may hire a private investigator to serve documents personally, especially if the person has been difficult to reach. If there is an environmental manager or other person at the facility with whom you have been working you might want to have Enforcement copy that person as well so he or she is not surprised. A party receiving a formal Notice or Department Order generally has 20 days to respond with a Request for Hearing, a Request for an Informal Discussion, and an Answer. The Answer should set out the respondent's theory of the case.

If the person does not appeal a Department Order, that Order becomes final by operation of law. If a person does not appeal a Notice of Assessment of Civil Penalty, we will ask that the EQC issue a Final Order on Default for the penalty.

### D. INFORMAL DISCUSSION & SETTLEMENT

After we receive a request for appeal, we will set up an informal discussion, which can be done in person or by conference call. Generally, the ELS handling the case will set up the meeting with the inspector and the respondent, but the regional manager, enforcement administrator, the respondent's attorney or others may also attend. The meeting serves several purposes. It gives respondents an opportunity to explain "their side of the story," to discuss different theories about the facts or law, to offer mitigating information, and to ask questions about the appeal. Sometimes all a respondent wants is to be heard and to vent. We will try to focus the discussion on areas where we think the respondent might have a strong case so that we know where we stand if there is to be a hearing. Inspector staff should be prepared to:

- Assist the ELS in discussing the evidence referred, the allegations made, and the application of the law;
- Discuss what still needs to be done to comply with the Order;
- Respond to any mitigating or new information or alternate theories; and
- Assist the ELS in identifying and narrowing the issues in case there is to be a hearing.

Following the discussion, the ELS will go over with the region any relevant points raised and determine whether to recommend that DEQ make an offer to settle. Generally, our goal is to issue the strongest case we can and to stick with the allegations we initially make. Nonetheless, respondents often can explain some mitigating information that DEQ had not known previously or point our weaknesses in our case. If we were wrong in any allegation or if there is a good chance we would lose at hearing, the ELS will make a recommendation that some offer of settlement be made. DEQ settles over 80% of the appealed penalties. Settlements are incorporated into a Mutual Agreement and Order (*see* below starting on page \_\_). If no settlement is made, the informal discussion will give DEQ a chance to better understand why the respondent appealed and what defenses they might make if there is a hearing.



## E. CONTESTED-CASE HEARING

When a respondent has made timely appeal to a DEQ action that may be appealed, and we are not able to resolve the issues through informal discussion or negotiated resolution, the respondent is entitled to a contested case hearing before hearing officer. A hearing is similar to a court trial, but less formal.

Hearings are generally held at a DEQ office in the city closest to the location of the respondent and the hearings officer assigned, but may also be conducted by telephone or video-conference.

Generally, the people present at the hearing will be the hearings officer, the respondent or an authorized representative; an Environmental Law Specialist representing DEQ, and such witnesses as relevant and necessary. Witnesses may include DEQ inspectors or other persons who have information related to the violations.

You may be called as a witness to testify to your observations or to explain other evidence such as formal documents, letters, maps, diagrams or other written materials, or the results of experiments or analyses. If you are to be called, the ELS will review the anticipated questions with you beforehand. Through witness testimony and other evidence, the ELS will attempt to demonstrate to the hearings officer that "*more likely than not*" DEQ's Notice, Order and Assessment of Penalty are supported by true alleged facts. The ELS will first present DEQ's case in support of the action, followed by the respondent's presentation in opposition. Both sides will be given opportunity to cross-examine witnesses. The Department has the burden on all elements of the violation at issue, except for those not at issue because of failure to specifically deny, or because the element is admitted or stipulated.

After the hearing the Hearings officer will render a "Proposed Final Order." This may take from two weeks to six months depending on the complexity of the record and the Hearing Officer's docket. The Final Order will become a final order by the Environmental Quality Commission unless appeal is made within 30 days of the mailing of the Hearing Officer's Final Order.

## F. HIGH LEVEL APPEALS

The Hearings officer's "Proposed Final Order" is appealable to the Environmental Quality Commission. At the scheduled time, the five-member board will hear the appeal. First, someone from the Attorney General's office will recite a brief history of the facts and case. Then DEQ and the party will each be given opportunity to make a brief oral argument and to answer questions from the EQC. No new evidence may be presented and the inspector will not be called to testify. The EQC panel will then vote to either adopt the hearing officer's findings, or instruct that a new hearing order be prepared that reflects the EQC's decision.

Final Orders may be appealed to the Oregon Court of Appeals, though such appeals are rare. Pursuant to state law, appeals to the Court of Appeals are handled by the Oregon Attorney General's office.

## G. COLLECTIONS

Penalties are not collectable until DEQ obtains a Final Order from the EQC by default, by prevailing at hearing, or by agreement with the party. In many cases, we allow the party to enter into a payment plan to pay in monthly payments plus 9% interest on the unpaid balance. Once we have a Final Order, and unless we have a payment agreement with the party, we will seek collection by placing a lien for the amount due plus interest on the property of the respondent and by referring the debts to the Department of Revenue or private collection agency for collection. In some cases DEQ may seek the aid of the Attorney General's office to pursue collection through judicial means.

## VII. CRIMINAL ENFORCEMENT

### A. CRIMINAL STATUTES

In 1993, the Oregon legislature passed the Environmental Crimes Act, which made criminal certain violations of environmental laws. The Act adopted both *misdemeanors* (punishable by up to one year in jail) and *felonies* (punishable by more than one year in jail). See Appendix \_\_\_ for a summary of the environmental crimes statutes.

### B. CASE SELECTION CRITERIA

Many criminal prosecutions done by county and federal prosecutors begin with complaint response or inspections by DEQ field staff. Not every violation will be prosecuted as a crime. In general, DEQ and prosecutors will only be interested in investigating the most significant and egregious violations as crimes – those that most-closely resemble traditional crimes with which the juries are most familiar. In deciding whether an egregious violation may merit a criminal investigation or whether it might be more appropriately pursued under administrative or civil authority, might be prosecuted as a crime, the field investigator must consider the criteria below:

#### *a. Violator's Conduct*

If the violator was **deceitful**, **deliberate**, or **dishonest** in committing the violation, the violator may deserve the more-stringent criminal enforcement. Some questions to keep in mind are:

- Was the violation committed intentionally, knowingly, deliberately?
- Was the violator dishonest or deceitful, or was the act committed fraudulently?
- What is DEQ's evidence of culpability, for example, admission, witness statements, written documentation, photographs? Is that evidence strong?
- Did the violator know the act was a violation of the law?
- Did the violator know the act threatened public health or the environment?
- Did the violator file false reports, conceal the misconduct, or tamper with monitoring equipment?

#### *b. Environmental Impact of the Conduct*

If the violator caused a threat to public health or environmental damage, the violator may deserve the more-stringent criminal enforcement. Some questions to keep in mind are:

- Was there an illegal discharge, release or emission that resulted in actual and extensive damage to the environment?
- Did the violation pose a serious threat of significant harm to public health?
- Does DEQ have scientific evidence of public health threat or environmental damage?

### *c. Violator's History of Noncompliance*

If the Department has evidence of previous violation by the violator, criminal enforcement may be warranted as a punishment and deterrent. Some questions to keep in mind are:

- Has DEQ previously notified the violator of the regulation?
- Does DEQ have evidence of a previous violation by this violator?
- Has DEQ taken an enforcement action against the violator for this or other violations?

### **C. REFERRING FOR CRIMINAL ENFORCEMENT**

Do not send an NON for a violation if you anticipate referring that violation for possible criminal enforcement. Upon determining that a violation should be referred for possible criminal enforcement, with your manager's approval, you should send an e-mail describing the facts of the violation, statutes and regulations violated and parties involved to the Environmental Crimes Coordinator (currently Jeff Bachman). He will review the information and schedule it for discussion by the Environmental Crimes Coordination Team. Please caption the email "Intraoffice advisory - exempt from public record." After it is reviewed by the Team, you will be informed about whether or not the case will be further considered for criminal investigation.

### **D. PARALLEL PROCEEDINGS & DOUBLE JEOPARDY**

Concurrent actions by civil and criminal authorities for violations arising out of the same or related transaction or occurrence are termed "parallel proceedings." Prior to a 1997, there was a question about whether parallel proceedings could violate the federal constitution by creating "double jeopardy." Since then, the US Supreme Court decided that parallel proceedings **do not** create double jeopardy. This allows DEQ, to proceed with a civil enforcement action for the same transactions and occurrences that are subject to a criminal prosecution. In fact, in no case should a potential criminal investigation interfere with DEQ taking necessary steps to remediate or prevent actual or potential harm to public health or the environment. Nonetheless, there are two related concerns.

#### ***1. Due Process***

DEQ inspectors and criminal investigators may proceed in parallel without creating "double jeopardy." In fact DEQ should take the needed steps to protect public health and the environment, regardless of what criminal case develops. Not only is that the ethical and responsible thing to do, but it would also hurt a criminal case if the defense can say "how big a deal could this violation be if DEQ didn't bother to fix it?"

A question often raised is: what can I do when I think a violation could be an environmental crime or when I know it was referred for consideration as an environmental crime? The answer is simple: **Do your normal job the best way you can, considering that this is an important case.** As long as your administrative search or inspection is conducted in good faith, within its

proper scope and solely to obtain information for a civil enforcement proceeding, the inspection or search is appropriate and the evidence should be admissible. The four-part test of good faith is:

1. The investigation was conducted pursuant to a legitimate purpose;
2. The inquiry was relevant to that purpose;
3. The information sought was not already in the possession of the agency; and
4. The proper administrative steps were followed.

Regardless of whether the case ends up as a criminal prosecution or not, DEQ still needs to know if there are violations, the extent of environmental damage, whether the person acted intentionally, and whether the person benefited economically from it. Since this is an important case, likely to end up in enforcement, take the time to conduct good sampling and use the chain-of-custody sampling forms to track the samples.

Your only "due process" restriction is also simple: **Do not use your administrative authority to collect information at the request of criminal investigators when the criminal investigators would have needed a search warrant to gather that information.** Doing so would not likely hurt your case, but it could ruin a criminal case because the evidence you collected would have violated the Fourth Amendment to the Constitution and therefore be inadmissible in court. This does not apply to:

- Information not within the control of the violator like downstream water samples or permits located in the county office;
- Searches when you accompany a criminal investigator under their criminal authority (*e.g.*, under a criminal search warrant); or
- Information you collected under your own initiative and administrative authority which the criminal investigator later asks you to supply.

Because doing so could violate the Constitution and more importantly wreck their case, criminal investigators will seldom give you feedback on what they think of your investigation – they generally can't tell you to collect more evidence, they can only hope you will do the best job you can.

## 2. *Appearance of Unfairness*

Although legal double jeopardy is not a concern, DEQ will generally not proceed with a penalty action when the same violation is being prosecuted as a crime. This is because (1) it can appear unfair to some and therefore damage the credibility our program, (2) in deciding to charge a crime, prosecutors generally consider is whether the violation was already subjected to some other legal enforcement, (3) there is little reason to duplicate efforts on one case.

## 3. *Responding to Inquiries*

Sometimes a party being investigated criminally, their attorney, or a reporter will ask you whether there is a criminal investigation or about the progress of a criminal investigation. You should never lie, but there are many good reasons to avoid getting involved in these discussions. If there is an investigation but it has not yet been announced, a good answer would be "I cannot confirm or deny the existence or absence of any criminal investigation." If a criminal investigation has been announced you may refer the person to the investigator or the prosecutor.

## VIII. MUTUAL AGREEMENT AND ORDER

Mutual Agreement and Orders (MAOs)<sup>5</sup> are formal consent orders that contain two integrated parts: (1) a negotiated agreement signed by the regulated party and a representative on behalf of DEQ and (2) a Final Order signed by the Director or delegated Administrator on behalf of the Environmental Quality Commission (EQC). MAOs can be used when the Department and source stipulate to certain facts, waive certain rights, and agree to the entry of an Order by the EQC. A MAO is designed to finalize a formal enforcement action through settlement or other negotiated resolution. In general, MAOs are used:

- If an approved compliance schedule sent in response to a Notice of Permit Violation (NPV) provides for a timetable for coming into compliance that is longer than six months;
- For sources operating without a permit, to provide the source authorization to operate under certain requirements and limitations until a permit is issued, and usually requiring the source to pay an upfront civil penalty; or
- To settle contested enforcement actions, primarily civil penalty assessments.

Under DEQ's Supplemental Environmental Projects (SEPs) program, the Department may mitigate part of a civil penalty if the violator conducts a project that benefits human health or the environment in Oregon. Projects benefiting pollution prevention and/or the local area in which the violation occurred are preferred. The directive states that the Department may approve a SEP when (1) the penalty to be mitigated is \$2,000 or greater, (2) the project is not otherwise required by law, and (3) the project does not create a market advantage for the violator. Furthermore, the project should not involve an inordinate amount of DEQ staff time to plan, arrange, implement, monitor, or follow-up. Facilities settling with SEPs have said that, although the SEP did not reduce the amount of money spent on the enforcement, it did enable them to tout their environmental interest which was useful in mitigating the public-relations impact of a civil penalty. The Department generally relies on the violator to come forward with suggested projects.

### A. MAO PROCEDURES

#### *1. MAOs related to compliance schedules sent in response to a NPV*

[This section under construction.]

#### *2. MAOs that provide the source authorization to operate under certain requirements and limitations until a permit is issued.*

[This Section under construction]

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<sup>5</sup> Consent orders executed before 1993 and some consent orders negotiated by the Cleanup Division are captioned "Consent Order" or "Stipulated Final Order."

### ***3. MAO that settles a civil penalty and/or Department or Compliance Order.***

This MAO is issued following an informal discussion with the Respondent. This MAO settles a contested civil penalty/order, and the respondent waives its right to a contested case hearing. These MAOs may reflect agreements to:

- revise some of the language in the Notice which may result in a reduction in the penalty amount,
- revise some of the language in the Order which may change the compliance schedule requirements or timelines,
- payment of the penalty according to a payment plan,
- reduction of the penalty because respondent will conduct a Supplemental Environmental Project. See Appendix \_\_\_.

Office of Compliance and Enforcement staff prepare this MAO.

### ***4. Addenda***

An "addendum" is an amendment to a fully-executed MAO that modifies the terms of that MAO by changing requirements or extending deadlines. If the addendum will only extend an interim deadline, the addendum is drafted at the staff level, reviewed by the regional manager, and signed by the regional administrator. If the addendum changes substantive requirements or the final compliance date, it is drafted by the regional inspector (possibly OCE or program staff), reviewed by the regional inspector and manager, OCE Senior Policy Advisor and Administrator, and signed by the regional administrator. Copies must be sent to the Program Office and OCE.

### ***5. Penalty Demand Notices***

Most MAOs contain a requirement that upon written demand from the Department, the source must pay a fixed civil penalty amount for each day of each violation of the compliance schedule or interim waste discharge limitation set forth in the MAO.

If a source violates the MAO's compliance schedule, region staff should proceed with a Penalty Demand Notice (PDN) unless the source can show the Department that the violation resulted from factors beyond the source's reasonable control (*see* page \_\_\_ for discussion of "beyond the reasonable control").

If the region staff person monitoring the MAO recommends that no stipulated civil penalty be issued, and the program manager and regional administrator agree, the region staff person should e-mail a description of the circumstances of the violation and request for no stipulated civil penalty to the Administrator of the Office of Compliance and Enforcement, with copy to the Enforcement Manager, and the program manager. The Enforcement Administrator will approve or deny that request. Until the Enforcement Administrator approves the request, a region or field staff person asked by the source what the Department intends to do with the violation should say that stipulated civil penalties are being considered for the violation of the MAO.



If the region staff person recommends a stipulated civil penalty be issued, and the program manager and regional administrator agree, the staff person should e-mail a draft PDN letter to the Enforcement Administrator with copy to the Enforcement Manager and administration. If there are no or insufficient mitigating circumstances presented by the source, discuss these in your e-mail, and discuss the attempts you made to get information from the source on the cause of violation(s). The Enforcement Manager will assign a case number to the PDN letter. PDNs are approved and signed by the Enforcement Administrator. The PDN states the violations and days of violation, and states when the civil penalty is due. Respondent may contest whether or not a violation has occurred, but may not contest the civil penalty amounts.

Appendices A, B, C, D, E, F and G are not included with this draft

IN THE CIRCUIT COURT OF THE STATE OF OREGON  
FOR THE COUNTY OF MULTNOMAH

STATE OF OREGON )  
 ) ss. AFFIDAVIT FOR  
COUNTY OF MULTNOMAH ) ADMINISTRATIVE  
 ) SEARCH WARRANT

I, Jane Doe, being duly sworn on oath, depose and say that the following is true to the best of my knowledge:

1. That I, Jane Doe, am currently employed by the Department of Environmental Quality for the State of Oregon. That I am currently an inspector assigned to the Department's Water Quality Division. That I have been employed in this capacity for 10 years, and before that I was an inspector for EPA Region 10, doing inspections of hazardous waste generators. That my job entails the following: . . . . That I hold degrees in . . . and that I have had formal education in: . . . . That I have had 100 class-room hours of relevant training in . . . .

2. That I have reason to believe that environmental laws have been, and are currently being violated by Snidley Whiplash, doing business as Slippery Oil Co., at 1022 N.W. Johnson Street, Portland, in Multnomah County, Oregon, based upon the following facts as outlined below:

a. I know Slippery Oil Co. is located at 1022 N.W. Johnson, Portland, in Multnomah County, Oregon.

b. On March 3, 1995, I received information from Betty Rubble who told me that on February 22, 1994, she was on the premises located at 1022 N.W. Johnson, and she saw a substance she believed to be motor oil around a sewer drain.

b. On March 3, 1995, I saw Bart Simpson, who I know works for Slippery Oil Co., which is located at 1022 N.W. Johnson Street, pour motor oil into a sewer in front of that location. I know that when oil is handled in this manner it is a hazardous waste. I know that the disposal of oil in this manner is illegal for the following reasons: . . . .

c. I know that when the hazardous wastes are dumped they leave trace amounts that are capable of detection. The wastes can be detected by . . . .

3. On March 5, 1995, I went to the Slippery Oil facility to conduct an inspection. The receptionist, Rebecca Crider, stated that Snidley Whiplash had instructed Rebecca Crider to deny me access to the facility.

4. The facility located at 1022 N.W. Johnson Street, is more particularly described as: an office building with a fenced yard on each side. A Multnomah County sewer drain is located at the front of the property in the left corner of the lot, facing the street. The building has one large room where receptionists, secretaries and accounting personnel are arranged. Another room houses the bookkeeper. A sign reading "Slippery Oil Co." is posted above the door.

BASED ON THE ABOVE INFORMATION, I have reason to believe that Slippery Oil Co. is polluting soils and water in violation of Oregon law.

I believe DEQ has statutory authority to conduct this administrative search pursuant to 468.095(1), which states "the department shall have the power to enter upon and inspect, at any reasonable time, any public or private property, premises or place for the purpose of investigating either an actual or suspected source of water pollution . . . or to ascertain compliance or noncompliance with any rule or standard adopted or order or permit issued pursuant to [among other statutes, those concerning sewage and water quality]."

WHEREFORE, I request the court grant the Department an administrative search warrant authorizing the search and inspection of the above-described Slippery Oil Co. property and buildings, and containers used for the disposal and storage of waste. I also request the seizure of samples and records related to the inspection of the above-described locations including computer records, billing records, customer lists, origin destination records, pumping and discharge records and any documentation pertaining to the discharge of waste to determine compliance with water, used oil and hazardous waste regulations.

Dated this 13th day of March, 1995

Jane Doe

Dated: \_\_\_\_\_.

Sworn and subscribed before me this 13th day of March, 1995.

Judge Flip Wilson

**Example 1:** You have investigated an accidental discharge of paint-manufacturing waste water into a river that occurred when a person, who had no permit to discharge, forgot to turn off a valve, discharged the waste into the river, did not report the discharge, and did not clean it up. In determining the proper enforcement response, apply the following steps:

1. Document the violations including the illegal discharge, the failure to clean up, and the failure to report.

2. Find the classifications of the violation -- The illegal discharge is a Class I violation under OAR 340-012-0055(1)(b) as described on page 21.

3. Find the letter representing the proper response -- Because there was no permit, the proper response for the illegal discharge is found in column NO PMT and is an A/B<sup>9</sup> response, which means there is additional specific guidance in determining whether to use the "A" or "B" response in note 9.

4. Note 9 is found on page 40. If you determine that the spill was not "beyond the reasonable control" of the violator, you should use the "A" response. The "A" response refers the violation to the Office of Compliance and Enforcement for possible civil penalty.

5. Look up the draft language provided for an "A" response on page 38 and include that language in the NON.

**Example 2:** A City has a Stormwater Permit that requires the City to submit an initial construction plan by January 1, 1993. The permit also requires the City to submit quarterly discharge reports. When the City violated its permit on January 1, 1993, by failing to submit the plan, DEQ issued a NON for this Class II violation. When the City violated its permit on June 1, 1994, by failing to submit a quarterly report, DEQ issued a second NON for this Class II violation. On April 1, 1995, the City violates its permit again by failing to submit a discharge report. In determining the proper enforcement response, apply the following steps:

1. Document the violation.

2. Find the classifications of the violation -- The failure to submit a report as required by permit is a Class II violation under OAR 340-012-0055(2)(b) as described on page 21.

3. Find the letter representing the proper response. Because there was a permit, the proper response is found in column PMT and is an "E" response.

4. Look up the guidance for the "E" response on page 44. Because this would be the third NON for Class II violations of the same permit within 36 months, OAR 340-012-0041(1)(c) requires the Department to issue a NPV for this violation.

5. The draft language to be used in the NON which informs the permittee you are referring for an NPV is on page 45.

## ENFORCEMENT TIMELINESS

**File Name:** \_\_\_\_\_ **Case No.** \_\_\_\_\_

1. **Initial Discovery/Inspection:** \_\_\_\_\_ / \_\_\_\_ / \_\_\_\_
2. **Investigation Completed:** \_\_\_\_ / \_\_\_\_ / \_\_\_\_  
(Please explain if the time between 1. & 2. exceeds 10 days)
3. **Date of Notice(s) of Noncompliance that trigger referral:** \_\_\_\_\_ / \_\_\_\_ / \_\_\_\_
4. **Referral Signed by Inspector & Sent for Regional Approval:** \_\_\_\_\_ / \_\_\_\_ / \_\_\_\_  
(Please explain if the time between 2. & 4. exceeds 15 days)
5. **Referral Received by OCE:** \_\_\_\_\_ / \_\_\_\_ / \_\_\_\_
6. **Assigned to Enforcement Staff:** \_\_\_\_\_ / \_\_\_\_ / \_\_\_\_
7. **Reviewed by ELS for completeness:** \_\_\_\_\_ / \_\_\_\_ / \_\_\_\_  
Referral was missing the following necessary information: [ ] NON; [ ] NON Response; [ ] EB information; [ ] Permit; [ ] Data Sampling; [ ] Photographs; [ ] Other (describe)
8. **Referral Substantially Complete:** \_\_\_\_\_ / \_\_\_\_ / \_\_\_\_
9. **Documents Sent for Review/Approval:** \_\_\_\_\_ / \_\_\_\_ / \_\_\_\_  
(Please explain if the time between 8. & 9. exceeds 15 days)

Step 1 review/clearance: Insp./Reg. Mgr/Les		
To	Sent (Date)	Initial & Date

Step 2 review/clearance: RDA/Anne		
To	Sent (Date)	Initial & Date

10. **Documents Sent to Director for Signature:** \_\_\_\_\_ / \_\_\_\_ / \_\_\_\_  
(Please explain if the time between last approval in 9. Step 2 and 10. exceeds 2 days)

**Timeliness Summary:**

*Number of days from Completed Investigation to Director (2 to 8):* \_\_\_\_\_

Director's Expectation:   55  

Days Over/(Under) Director's Expectation: \_\_\_\_\_

Numbers 1 through 4 completed by field staff, numbers 5 through 10 completed by Office of Compliance and Enforcement.

## Appendix A

The Department of Environmental Quality or county, district or city board of health personnel, authorized sanitarians or other authorized city or county personnel may enter upon the premises of any person regulated under ORS 459.005 to 459.105, 459.205 to 459.385, 466.005 to 466.385 and 466.992 or under regulations adopted pursuant to ORS 450.075, 450.810, 450.820 and 451.570, at reasonable times, to determine compliance with and to enforce ORS 450.075, 450.810, 450.820, 451.570, 459.005 to 459.105, 459.205 to 459.385, 466.005 to 466.385 and 466.992 and any rules or regulations adopted pursuant thereto. The department shall also have access to any pertinent records, including but not limited to blueprints, operation and maintenance records and logs, operating rules and procedures. As used in this section, "pertinent records" does not include financial information unless otherwise authorized by law.

### ORS 459.385

(1) In order to determine compliance with the provisions of ORS 466.706 to 466.882 and 466.994 and rules adopted under ORS 466.706 to 466.882 and 466.994 and to enforce the provisions of ORS 466.706 to 466.882 and 466.994, any employees of or an authorized and identified representative of the Department of Environmental Quality may:

(a) Enter at reasonable times any establishment or site where an underground storage tank is located;

(b) Inspect and obtain samples of a regulated substance contained in an underground storage tank; and

(c) Conduct an investigation of an underground storage tank, associated equipment, contents or the soil, air or waters of the state surrounding an underground storage tank.

(2) If any person refuses to comply with subsection (1) of this section, the department or a duly authorized and identified representative of the department may obtain a warrant or subpoena to allow such entry, inspection, sampling or copying. [1987 c.539 s.30 (enacted in lieu of 468.907)]

### ORS 466.805





*Hazardous Waste Significant Non-Compliers*

A violation is "any transgression of any statute, rule, order, license, permit, or any part thereof and includes both acts and omissions." In a typical formal enforcement action, the Department cites all significant violations, but assesses a penalty on a single violation for first time violators or violators who pose little or no potential for endangering public health or the environment. Some violators may be designated as "Significant Non-Compliers." Significant Non-Compliers\* are those who:

1. Violate the law through flagrant or willful action; or
2. Cause actual or substantial likelihood of endangerment to public health or the environment (*e.g.*, release of hazardous waste into the environment which, because of its quantity, location, or toxicity, is an endangerment to public health); or
3. Are chronic or recalcitrant violators (*i.e.*, persons who received a previous formal enforcement action and failed to correct the violation or later committed violations of a similar nature); or
4. In the case of hazardous waste, are a Transport, Storage or Disposal (TSD) facility that substantially deviates from hazardous waste regulations, or an Large Quantity Generator (LQG) or Small Quantity Generator (SQG) that is not meeting any (or at least most) of the applicable hazardous waste management regulations.

This designation is important in some programs where Significant Non-Compliers are examined more carefully and against whom the Department may have a greater interest in formal enforcement. The Department may assess penalties on more than one violation or for separate days of violation in formal enforcement actions against Significant Non-Compliers.

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\* In Air Quality, certain major sources may have a designation of "Significant Violator" for the purposes of tracking under DEQ's agreement with EPA for enforcement under the Clean Air Act 1990 Amendments.

## Appendix D

### Water Quality Significant Non-Complier (SNC) –

#### 1. Effluent Violations of Monthly Average Limits

##### a. TRC Violations

A 40% exceedance of specific pollutant limits listed in the A List or a 20% exceedance of a specific pollutant limit from the B List at a given discharge point for any two or more months during the two consecutive quarter review period is SNC

##### b. Chronic Violations

Violation of any monthly effluent limit at a given pipe by any amount for any four or more months during the two consecutive quarter review period is SNC.

#### 2. Effluent Violations of Non-Monthly Average Limits\*

TRC and chronic SNC criteria are the same as for monthly average violations as described in section 1.a. and b. above. However, the following caveat also applies:

When a parameter has both a monthly average and a non-monthly average limit, a facility would only be considered in SNC for the non-monthly limits if the monthly average is also violated to some degree (but less than SNC).

#### 3. Other Effluent Violations

Any effluent violation that causes or has the potential to cause a water quality or human health problem is SNC.

#### 4. Non-Effluent Violations

Any unauthorized bypass, unpermitted discharge, or pass through of pollutants which causes or has the potential to cause a water quality problem (e.g., beach closings, fishing bans, or other restrictions of beneficial uses) is SNC. In the case of POTWs implementing Approved Pretreatment Programs, failure to implement or enforce those programs is SNC.

\*NOTE: Non-monthly average SNC applies to all maximum and all average (other than monthly average) statistical base codes.

#### 5. Permit Schedule Violations

Any failure to start construction, end construction, or attain final compliance within 90 days of the scheduled date is SNC. Also, all pretreatment schedule milestones missed by 90 days or more are SNC.

## 6. Permit Reporting Violations

Discharge Monitoring Reports, POTW Pretreatment Performance Reports, and the Compliance Schedule Final Report of Progress (i.e., whether final compliance has been attained) that are not submitted at all or are submitted 30 or more days late are SNC.

## 7. Enforcement Orders

### a. Judicial Order

Any violation of a Judicial Order is SNC.

### b. Administrative Order (AO)

Any violation of an effluent limit (or other water quality/health impact) established in an AO is SNC. However, when an AO limit is as stringent as an applicable permit limit, the facility is SNC only if the permit effluent SNC criteria, set out in number 1-3 above, are met.

Any unauthorized bypass, unpermitted discharge or pass-through of pollutants which cause or has the potential to cause a water quality problem or human health problem is SNC.

Any schedule or reporting violations listed above in sections 5 and 6 respectively are SNC.

Any violations of narrative requirements or any other violation of concern to the Director is SNC.

Exhibit A  
SNC Conventional Pollutants  
(40% exceedance of limit)

Group I Pollutants-TRC+1.4	<i>Minerals</i>
	Calcium
<i>Oxygen Demand</i>	Chloride
Biochemical Oxygen Demand	Fluoride
Chemical Oxygen Demand	Magnesium
Total Oxygen Demands	Sodium
Total Organic Carbon	Potassium
Other	Sulfur
	Sulfate
<i>Solids</i>	Total Alkalinity

Total Suspended Solids  
(Residues)  
Total Dissolved Solids  
(Residues)  
Other

*Nutrients*  
Inorganic Phosphorus Compounds  
Inorganic Nitrogen Compounds  
Other

Total Hardness  
Other Minerals

*Metals*  
Aluminum  
Cobalt  
Iron  
Vanadium

*Detergents and Oils*  
MBAS  
NTA  
Oil and Grease  
Other detergents or algicides

Exhibit B  
SNC Toxic Pollutants  
(20% exceedance of limit)

Group II Pollutants-TRC=1.2

Metals (all forms)  
Other metals not specifically listed under Group I

*Inorganic*  
Cyanide  
Total Residual Chlorine

*Organics*  
All organics are Group II except those specifically listed under Group I.3



*Signature and document process table for Enforcement Actions*

	<b>Item</b>	<b>Process</b>
1	Notice of Non Compliance	Staff signs, cc regional program manager, cc RDA optional
2	Enforcement Referrals	Regional program managers inform RDAs, then sign and send in referrals. No RA signature required
3	Civil Penalties and unilateral Orders	RDAs informed. Director signs. Final documents cc'd to RDAs
4	MAOs with penalties	RDAs informed; Enforcement DA Signs. Copies of final documents cc'd to RDA
5	MAOs without penalty prepared by region	Director signs significant MAOs; RDAs sign others after source signs - monthly report to Director
6	Amendments to Mutual Agreement and Orders or to other orders; mostly extensions	<b>RDA signs all.</b>
7	No-Penalty Justifications	Regional DAs and Enforcement DA approve after Enforcement and Regional Manager recommend.
8	Notice of Permit Violation	Regional DAs review and sign the final document.
9	Penalty Demand Notices	Regional DAs review final letter for approval. Enforcement DA signs
10	Settlement offers including SEPs	Enforcement DA approves. Environmental Law Specialist signs.
11	Settlement MAOs	Enforcement DA
12	Motion for Default Order	Enforcement Manager
13	Default Orders	Enforcement DA
14	Referral of unpaid penalty to Department of Revenue for Collection	Laura Arcidiacono, Business Office

## Appendix A

### **HAZARDOUS WASTE:**

*Misdemeanor:* The person, in violation of any hazardous waste statute, rule, license, permit or order, knowingly treats, stores, disposes of or transports hazardous waste.  
[ORS 468.922, 468.929; Punishable by a fine up to \$10,000 and one year imprisonment.]

*Felony:* The person, in violation of any hazardous waste statute, rule, license, permit or order, knowingly disposes of, stores, or treats hazardous waste and:

- (a) As a result, recklessly causes substantial harm to human health or the environment; or
- (b) Knowingly disregards the law in committing the violation.

[ORS 468.926, 468.931; Punishable by a fine up to \$200,000 and 10 years imprisonment.]

### **AIR POLLUTION:**

*Misdemeanor:* The person knowingly violates any air quality statute, a permit, rule, order or applicable requirement.  
[ORS 468.936; Punishable by a fine of up to \$10,000.]

*Felony:* The person, in violation of any air quality statute, rule, permit, order or applicable requirement, knowingly discharges, emits or allows to be discharged or emitted any air contaminant into the outdoor atmosphere and:

- (a) As a result, recklessly causes substantial harm to human health or the environment;
- or
- (b) Knowingly disregards the law in committing the violation.

[ORS 468.939; Punishable by a fine up to \$200,000 and 10 years imprisonment.]

### **WATER POLLUTION:**

*Misdemeanor:* The person, with criminal negligence, violates any water quality statute, rule, standard, license, permit or order.  
[ORS 468.943; Punishable by a fine up to \$25,000 and one year imprisonment.]

*Felony:* The person, in violation of any water quality statute, rule, standard, license, permit or order, knowingly discharges, places or causes to be placed any waste into the waters of the state or in a location where the waste is likely to escape or be carried into the waters of the state and:

- (a) As a result, recklessly causes substantial harm to human health or the environment; or
- (b) Knowingly disregards the law in committing the violation.

[ORS 468.946; Punishable by a fine up to \$200,000 or 10 years imprisonment or both.]



**ENVIRONMENTAL ENDANGERMENT *Felony*:** The person knowingly commits a hazardous waste, air quality, or water pollution felony; and as a result, places another person in imminent danger of death or causes serious physical injury.

[ORS 468.951; Individuals punishable by imprisonment of not more than 15 years, a fine of not more than \$1,000,000 or both. Corporations punishable by a fine of not more than \$2,000,000. Subsequent convictions punishable by imprisonment of not more than 30 years, a fine of not more than \$5,000,000 or both.]

**FALSE INFORMATION *Felony*:** The person:

- (a) Makes any false material statement, representation or certification, knowing it to be false, in any notice, plan, record, report or other document required by any provision of Oregon environmental laws or rules; or
- (b) Omits required information, knowing it to be required, from a document described above; or
- (c) Alters, conceals or fails to file or maintain any document described above in knowing violation of any provision of Oregon's environmental laws.

[ORS 468.953; Punishable by a fine up to \$100,000 and five years imprisonment.]

**OFFENSIVE SUBSTANCES *Misdemeanor*:** The person:

- (a) Discards any offensive substance (*e.g.*, dead animal parts, excrement, putrid nauseous, noisome, decaying, deleterious substance) into any water (whether or not water of state), or
- (b) Places an offensive substance onto land (*i.e.*, any road, street, alley, lane, railroad right of way, lot, field, meadow, or common), or
- (c) Knowingly allows an offensive substance to remain on land they own to the annoyance of any citizen.

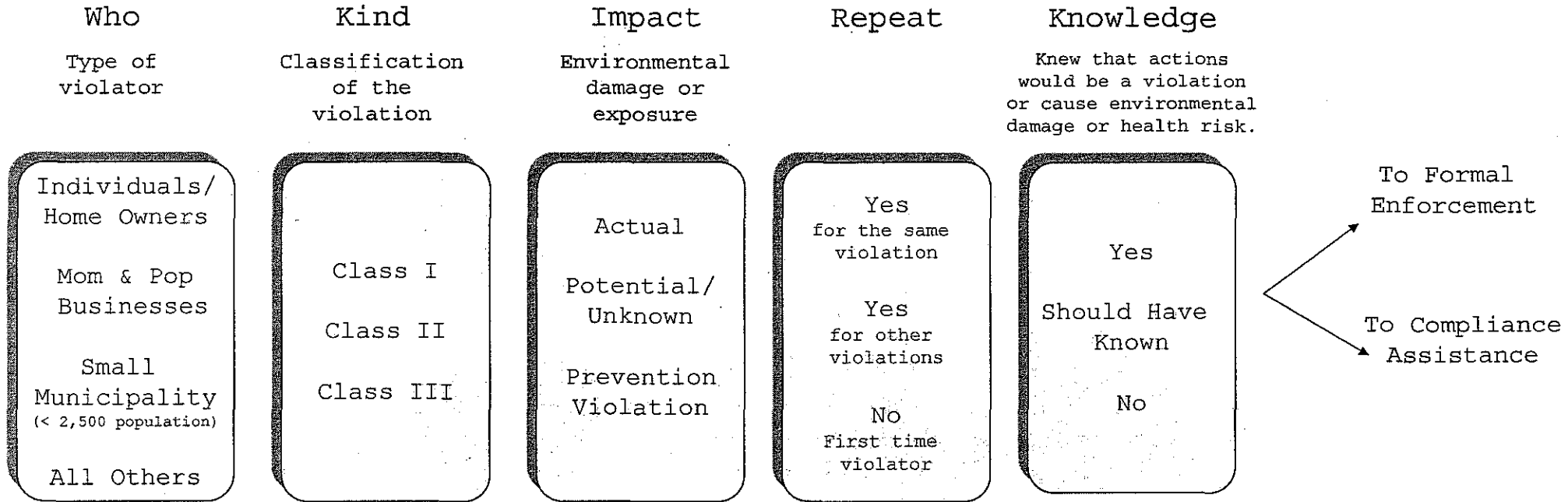
[ORS 164.785; Punishable by a fine up to \$5,000 and one year imprisonment.]

**OFFENSIVE LITTERING *Misdemeanor*:** The person intentionally:

- (a) Deposits rubbish, trash, garbage, debris, or refuse on land of another without permission or on a public right of way, or
- (b) Drains septic waste on land of another without permission or on a public right of way.

[ORS 164.805; Punishable by a fine up to \$1,000 and 30 days imprisonment.]

# Potential Enforcement Guidance Filter Factors



**INTERAGENCY AGREEMENT**

This agreement is between the Employment Department/Hearing Officer Panel, hereafter called "PANEL" and Department of Environmental Quality, hereafter called "AGENCY". Administrators for the agreement are:

Employment Department/Hearing Officer Panel	
<i>Administrator:</i> Thomas E. Ewing	<i>Contract Administrator:</i> Anne Price
<i>Title:</i> Chief Hearing Officer	<i>Title:</i> Administrator, Office of
<i>State of Oregon:</i> Employment Department	<i>State of Oregon:</i> Compliance and Enforcement
<i>Address:</i> 601 Cottage Street, NE	<i>Address:</i> Dept. of Environmental Quality
Salem, OR 97301	811 SW 6 <sup>th</sup> Avenue
<i>Phone:</i> ☐ <i>Fax:</i> (503) 378-4720	<i>Phone:</i> Portland, OR 97204
(503) 378-2942	<i>Fax:</i> (503) 229-5213
	(503) 229-5850

**1. Effective Date and Duration**

This agreement shall become effective on the date at which every party has signed this agreement for services to be implemented starting July 1, 2001, and not sooner; and, when required, approved by the Department of Justice. Unless earlier amended, terminated or extended, this agreement shall expire when the PANEL's completed performance has been accepted by the AGENCY or June 30, 2003, whichever is sooner.

**2. Statement of Work**

The **Statement of Work**, including the delivery schedule for the work, is contained in *Exhibit A* attached hereto and by this reference made a part hereof.

**3. Consideration**

- a. Payment for all work performed under this Contract shall be subject to the provisions of **ORS chapter 183** and **OAR chapter 137** and shall not exceed the total maximum sum of **\$65,000** that includes any allowable expenses. PANEL shall notify AGENCY when the maximum sum is in danger of being exceeded, upon which event the parties may amend this Agreement.
- b. The AGENCY agrees to pay the PANEL the hourly rates as described in Exhibit A.
- c. Interim payments shall be made to the PANEL following the AGENCY's review and approval of invoices submitted by the PANEL.
- d. The PANEL shall not submit invoices for, and the AGENCY will not pay, any amount in excess of the above-described hourly rate. The PANEL shall notify the AGENCY contract administrator in writing thirty (30) consecutive calendar days before this contract expires of the upcoming expiration of the contract.
- e. The Panel shall submit monthly invoices for work performed. The invoices shall describe the case number and name of the cases for which services were performed and shall itemize hourly expenses for which reimbursement is claimed. Full payment must be made within thirty (30) consecutive calendar days, but in no event more than sixty (60) consecutive calendar days, after submission of the invoice.

**4. Amendments**

This agreement may be amended. The terms of this agreement shall not be waived, altered, modified, supplemented or amended in any manner whatsoever, except by written instrument signed by both parties.

**5. Termination**

- a. This agreement may be terminated by mutual consent of both parties, or by either party upon two weeks' notice, in writing and delivered by mail or in person (14 consecutive calendar days).
- b. Either the PANEL or the AGENCY may terminate this agreement if federal or state regulations or guidelines are modified, changed or interpreted in such a way that the services are no longer allowable or appropriate for purchase under this agreement, or are no longer eligible for the funding proposed for payments authorized by this agreement.

**6. Funds Available and Authorized**



## EXHIBIT A

### STATEMENT OF WORK/DELIVERY SCHEDULE

#### THE PANEL AGREES TO:

1. Conduct on AGENCY's behalf all contested case hearings arising from appeals or requests for hearing filed pursuant to the legislatively authorized activities of the AGENCY and referred to the PANEL by the AGENCY for that purpose. Those services include, but are not necessarily limited to, the following:
  - promptly scheduling cases and issuing notices including the Notice of Rights of Parties in Contested Cases pursuant to ORS 183.413 and OAR 137-003-0510, in coordination with the AGENCY's Agreement Administrator, or appointed designee;
  - occasionally conducting expedited contested case hearings subject to adequate advance written notice to parties;
  - after consulting the agency representative, conducting the hearing or pre-hearing conference by telephone or in-person;
  - performing hearings at various locations around the state, with travel expenses reimbursed under the current Department of Administrative Services per diem policy;
  - assigning an hearing officer to the matter that has expertise in the legal issues and general subject matter of the hearing;
  - providing recording equipment and preparing an audio-tape record of all hearings which is suitable for transcription;
  - promptly returning to AGENCY all records of the case upon issuance of the order by the hearing officer including a list of all exhibits offered, noting which have been excluded from the record and the reasoning therefore;
  - appointing a certified or qualified interpreter whenever it is necessary to interpret the proceeding to a non-English-speaking person or disabled participant in a hearing;
  - postponing a hearing when agreed upon by the party and the AGENCY or on a showing of good cause by either the party or the AGENCY;
  - weighing the evidence presented in accordance with rules and law, while giving deference to the AGENCY's interpretation of a rule unless the AGENCY's interpretation is unreasonable and inconsistent with the wording and policy of the rule;
  - allowing closing arguments to be presented in writing at either the AGENCY's or party's request.
2. Limit the scope of the hearing to those matters relevant and material to the factual issues in the Notice and contested by the party in its Answer unless either the AGENCY has determined that there is good cause to consider issues not raised in the Answer, or the hearing officer determines that it is necessary to consider the issue to ensure a full and fair hearing. If a hearing officer determines that an issue must be considered that was not raised in either the Notice or the Answer, the hearing officer will place that issue on the record during the hearing and will allow both the AGENCY and the party an opportunity to brief that issue before issuance of a proposed order. In the event that the party and AGENCY reach a stipulation on any material fact, the PANEL must consider that stipulation to be true.
3. Issue only proposed orders, within 45 consecutive calendar days after close of the record. The proposed orders shall comply with the Administrative Procedures Act (APA) and all requirements of statutes and administrative rules applicable to the AGENCY. The PANEL will also issue a one page Final Order suitable for filing with a county clerk. The PANEL will promptly deliver to parties and AGENCY representative a copy of the proposed order by regular mail with a certificate of service attached, unless otherwise requested by the AGENCY. After issuance of an order, the PANEL will conduct no further proceedings unless requested to do so by the AGENCY. Any further hearing will be limited to the issues set forth by the AGENCY.
4. Include the following exceptions language in all proposed orders issued by PANEL:

*If you are not satisfied with this decision, you have a right to petition the Environmental Quality Commission for review. To have the decision reviewed, you must file a "Petition for Review" within 30 days of the date of service of this Order as provided in Oregon Administrative Rule (OAR) 340-011-0132 (1) and (2). Service is defined in OAR*

340-011-0097, as the date the Order is mailed to you, not the date you receive it. The Petition for Review must be filed with:

Environmental Quality Commission  
c/o DEQ – Assistant to the Director  
811 SW 6<sup>th</sup> Avenue  
Portland OR 97204

Within 30 days of filing the Petition, you must also file exceptions and a brief as provided in OAR 340-011-0132(3).

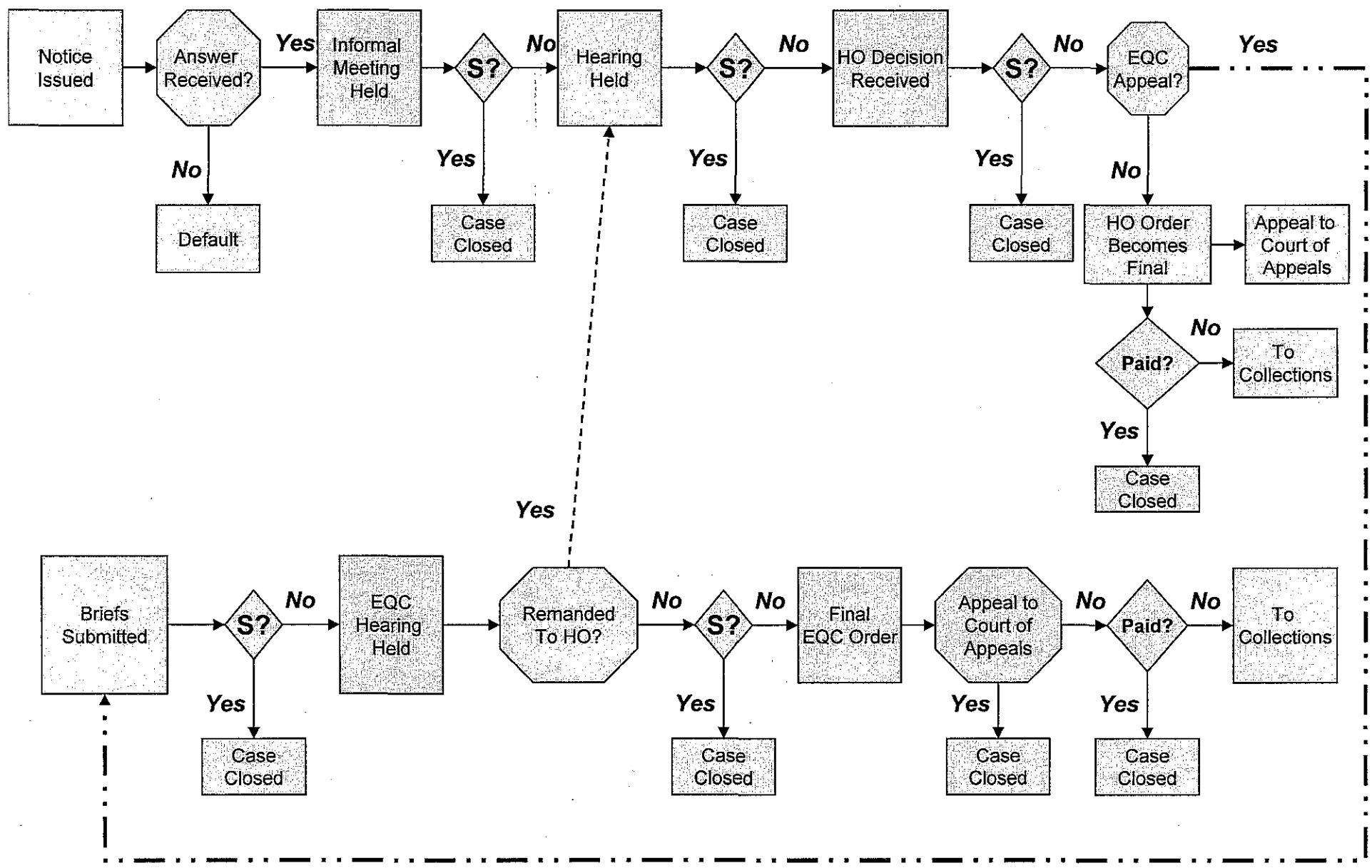
5. If representation of the AGENCY or the party is by someone other than an attorney, provide a reasonable opportunity to consult with an attorney and to file written legal argument within a reasonable time frame after conclusion of the hearing, but before issuance of an order by the hearing officer.
6. Issue final orders regarding requests for party or limited party status under OAR 137-003-0535 and requests for stays under OAR 137-003-0690, when requested to do so by the AGENCY. The PANEL is not authorized to issue orders regarding late hearing requests or orders on default.
7. Issue orders either allowing or denying a discovery request. An order allowing discovery will be issued only after the party seeking the discovery has demonstrated relevance of the information sought and has attempted to obtain the information through an informal process. If the party is seeking to obtain information from the AGENCY, the prior informal process must have included a public record request. Regardless of this delegation, the PANEL will not order either a deposition or a site visit unless the AGENCY provides written approval in the particular case.

#### THE AGENCY AGREES TO:

1. Reimburse the PANEL for these services at the following rates: management and hearing officer time at **\$63.00 per hour**; support staff time at **\$40.00 per hour**.
2. Reimburse the PANEL for all appropriate and actual costs incurred to provide said services. Such costs include, but are not limited to:
  - interpreter fees when the AGENCY is required to provide and pay for such services under OAR 137-003-590.
  - postage,
  - long-distance telephone calls, and
  - reasonable copying costs based on standard cost per page as adopted by the PANEL as its public record reimbursement cost.
3. Provide instruction and information regarding the AGENCY's processes and procedures sufficient to familiarize the hearing officers with pertinent AGENCY activities. The AGENCY may agree to pay costs associated with the training of hearing officers in the AGENCY's particular subject matter. Such obligation shall not be binding upon the AGENCY unless PANEL has provided advance written notice of the training program and its cost, and the AGENCY has agreed in writing to the proposed training. Regardless of this provision, the PANEL is responsible for ensuring that hearing officers are knowledgeable in the legal issues and general subject matter at issue in the hearing.
4. At the time of referral, forward to the PANEL an information sheet as required by the PANEL along with a copy of the contested case notice and the request for a hearing.
5. Provide the location/rooms for AGENCY contested case hearings, unless other arrangements are made.
6. Provide copies of Final Orders issued by the Environmental Quality Commission.

Rev. 4/30/02

# Case Settlement and Appeal Process



S? = Settlement?

EQC Meeting, 4/1/02, Steve F Handout

EQC APPEALS--DRAFT

PRG	ELS	CASE NAME	NUMBER	ACTION	ISSUED	ASSESSED	FINAL	EQC APPEAL	EQC HEAR	ISSUES
AQ/AB	BACHMAN	FERGUSON, WILLIAM	1996-315	CP	12/5/1996	5400	1400	1/8/1998	9/17/1998	DEQ appealed. Department penalized Ferguson for violating asbestos work practice requirements. DEQ appealed hearing officer's decision to greatly reduce penalty--from \$5,400 to \$1,000-- based on his interpretation of the aggravating and mitigating factors in the civil penalty formula. Commission increased penalty to \$1,400, but rejected the hearing officer interpretations appealed by the Department.
AQ/AB	CAMILLERI	SLEVCOVE, HARRY	2000-132	CP	08-Nov-00	9600		08-May-02	Pending	Respondent appealed. 1) Friability of materials; 2) Amount of civil penalty; 3) Hearing Officer decision that Mr. Slevcove's written closing argument were late. However, Hearing Officer stated that this did not impact his decision.
SW	CWIK	WALDRON, ALLEN	1996-183	CPDO	19-Nov-96	2600	1200	10-Jul-99	Settled before being heard	DEQ appealed Hearings Officer ruling that DEQ could not issue a civil penalty for a violation unless the statute cited for penalty had been first cited in a Notice of Noncompliance; settled before going to EQC.
SW	CWIK	UMATILLA REFUSE GROUP COOP	1996-121	CPDO	07-Jun-96	18750	4,800	11/12/1998 & 11/23/1998	24-Jun-99	Respondent and DEQ appealed. Respondent appealed Hearings Officer ruling that wood waste on URG member's property near Pendleton was solid waste. EQC upheld Hearing Order, which reduced penalty from \$18,750 to \$4,800.
SW/WT	CWIK	RMAC INTERNATIONAL, INC., DON WEEGE, AND JOHN SPENCER	1995-060	CP	13-Apr-95	Cleanup costs, not cp. 302835	302835	23-Apr-95	11-Aug-97	Respondent appealed. Respondents disputed liability for cleanup of a solid waste site near Troutdale resulting from an abandoned tire pyrolysis facility. EQC found Respondent RMAC liable for \$302,835 in abatement costs.
UT	RICH	STAFF JENNINGS MARINA	1996-274	CP	07-Mar-97	8400	8400	17-Apr-98	19-Mar-99	Respondent appealed. (1) Penalty barred by statute of limitations; (2) Rule cited cannot be applied retroactively; (3) Hearings Officer was incorrect about factual findings. EQC upheld Hearing Order.



## EQC APPEALS--DRAFT

WMC/HW	BACHMAN	TAMADDON, DAR & CHRISTY (Aaron's Quick Stop)	1999-086	CPCO	06-Aug-99	12878	7200	12-Feb-01	06-Dec-01	Respondent appealed. DEQ penalized Tamaddon for illegal disposal of hazardous waste. The Hearing Officer found for DEQ, but reduced the penalty from \$12,878 to \$7,200. Mr. Tamaddon appealed arguing that he was not liable for any penalty. The Commission remanded the case to the Hearing Officer for additional findings on the question of Mr. Tamaddon's negligence. The Hearing Officer has issued an amended decision and Mr. Tamaddon has until June 10, 2002, to appeal that decision.
WMC/HW	SCHURR	CASCADE GENERAL	1997-176	CPCO	18-Nov-97	14500	10000	07-Jul-99	19-Nov-99	DEQ and Respondent appealed. This was a very, very complex case involving fine points and definitions in RCRA. No direct observation was available, and the case was discovered and built from paperwork found during an inspection of Fuel Processors/Oil Re-Refining. CG appealed over the finding that CG's Tectyl was an ignitable hazardous waste rather than an unused product, used oil or used oil mixture, as well as over what CG described as "two factual errors" in the findings. DEQ appealed over (1) the HO's finding that CG had made a valid HW determination, and (2) a mathematical error by the HO that did not correctly reflect Class I equivalents used in the "P" factor. Hearing Order reduced CP to \$7,800. EQC found Respondent liable for \$10,000 CP.
WMC/SW	CWIK	STARK TRUCKING, INC.	1998-249	CPDO	28-Apr-99	8850	8600	26-May-00	01-Dec-00	Respondent appealed. Respondent disputed Hearings Officer finding that the wood waste on the site was solid waste. EQC upheld Hearing Order assessing a \$8,600 penalty.
WMC/SW	CWIK	NORTHWEST PLASTICS RECOVERY INC.	1998-143	CPDO	15-Mar-99	800	800	25-May-00	03-May-01	Respondent appealed. Respondent disputed Hearing Officer decision that DEQ had jurisdiction over his Tacoma-based business, and therefore had to comply with DEQ recycling reporting requirements. EQC upheld Hearing Order.
WMC/SW	CWIK	PACIFIC WESTERN CO.	1998-060	CPDO	28-Apr-99	24622	at Ct Appeals	11-Apr-00	03-May-01	Respondent appealed. Respondent disputed Hearing Officer decision that the piles of discarded asphalt shingles on property were a solid waste. EQC upheld Hearing Order with the exception that the economic benefit was dismissed, reducing the civil penalty from \$24,622 to \$9,600. Respondent appealed EQC Decision to Oregon Court of Appeals; case is pending.
WMC/T	CARLOUGH	VINCENT, DANIEL, DBA/DAN'S UKIAH SERVICE	1999-107	CP	06-Aug-99	63800	63800	24-Feb-00	01-Dec-00	Respondent appealed. (1) Penalty unfair because constitution forbids government from depriving right to make a living; (2) Done nothing wrong - alleged an unknown person from DEQ told him he could continue operating that way; (3) Cannot pay but do not want to submit financial information. EQC upheld Hearing Order.

## EQC APPEALS--DRAFT

WPM/SP	BACHMAN	LA FRANCHI, RONALD C. (ABN RON'S OIL COMPANY)	2000-009	CP	20-Apr-00	6000	6000	28-Aug-01	24-Jan-02	DEQ appealed. DEQ penalized Mr. LaFranchi for a gasoline spill that reached waters of the state. DEQ appealed a Hearing Officer's decision to reduce the penalty from \$6,000 to \$4,800 based on a decision that DEQ could not aggravate Mr. LaFranchi's penalty based on the negligence of his employee in causing the spill. DEQ prevailed before the Commission.
WPM/T	GRECO	JACKSON & SON DISTRIBUTORS, INC.	2000-164	CPDO	24-Apr-01	53010		03-May-02	Pending	DEQ appealed. Failure of Hearing Officer to apply correct law to facts. Also inaccurate factual findings.
WQ/D	BACHMAN	SIAW, CALEB	1999-186	CP	31-Jul-01	373580		29-May-02	Pending	Respondent appealed. DEQ penalized Dr. Siaw for failing to comply with a Mutual Agreement and Order. DEQ prevailed at Hearing and Dr. Siaw has appealed. Dr. Siaw has not yet filed his exceptions to the Hearing Officer's Order so we do not yet know what he will be arguing to the Commission.
WQ/I	BACHMAN	J. C. COMPTON CONTRACTOR, INC.	1998-166	CP	2/16/1999	24327	1400	9/15/2000	Settled before being heard	DEQ appealed. DEQ penalized Compton for discharging turbid water to the Willamette from gravel washing operations. The Hearing Officer dismissed the penalty based on his interpretation of state water quality law. The Department appealed but settled the case in a mutual agreement and order disavowing the hearing officer's interpretation.
WQ/I	GRECO	HUFF, REGGIE D.	2000-125	CP	30-Oct-00	1400	at Ct Appeals	29-May-01	06-Dec-01	Respondent appealed on the basis that the Hearing Officer changed terms used in statute in the hearing decision. EQC upheld Hearing Order.
WQ/M	BACHMAN	SCAPPOOSE, CITY OF	2000-010	CPDO	18-Apr-00	12000		23-Oct-01	Pending	DEQ appealed. DEQ penalized the City for intentionally submitting false information on a Discharge Monitoring Report. The City is appealing a Hearing Officer's decision upholding the penalty and argues that DEQ did not properly plead the violations in its Notice and did not prove that City acted intentionally. Scheduled to be argued before the Commission at its July meeting.
WQ/MW	BACHMAN	COOS BAY, CITY OF	1996-277	CPDO	4/11/1998	5400	5400	1/9/1998 & 1/17/1998	6/11/1998	DEQ appealed. Department penalized City \$5,400 for release of sewage from STP pressure line break to a wetland. DEQ appealed hearing officer's decision that City could not be penalized for discharging wastes to waters of the state without a permit. DEQ prevailed before Commission.

## Oregon DEQ EQC Meeting Minutes

Home > EQC > EQC Minutes

Approved \_\_\_\_\_  
Approved with Corrections X



Minutes are not final until approved by the Commission.

### **Environmental Quality Commission Minutes of the Three Hundredth and Third Meeting**

**June 6-7, 2002  
Regular Meeting<sup>[1]</sup>**

The following Environmental Quality Commission (EQC) members were present for the regular meeting, held at the Best Western New Kings Inn, located at 1600 Motor Court N.E., in Salem, Oregon.

Melinda Eden, Chair  
Tony Van Vliet, Vice Chair  
Mark Reeve<sup>[2]</sup>, Member  
Harvey Bennett, Member  
Deirdre Malarkey, Member

#### **Thursday, June 6, 2002**

On June 6, the EQC and Oregon Water Resources Commission (WRC) held a joint meeting to discuss the intersection of water quality and water quantity management in Oregon. The Commissions focused on opportunities for greater program coordination between the Oregon Department of Environmental Quality (DEQ) and Oregon Water Resources Department (WRD). The following WRC members were present:

Dan Thorndike, Chair  
Tyler Hansell, Member  
Jim Nakano, Member  
Ron Nelson, Member  
Jay Rasmussen, Member  
Susie Smith, Member

EQC Chair Melinda Eden called the joint meeting to order at approximately 11:00 a.m. Commissioners introduced themselves to the group.

#### **Opening Comments**

Paul Cleary, WRD Director, and Stephanie Hallock, DEQ Director, thanked Commissioners for their interest in improving the connections between water quality and water quantity management in the state, and gave an overview of discussion items for the day.

**Overview of Water Quantity and Water Quality Authorities**

Meg Reeves, WRD Deputy Director, and Mike Llewelyn, DEQ Water Quality Administrator, described Oregon's water law and the federal Clean Water Act as a foundation for Commission consideration of the gaps and overlaps between these authorities. Commissioners discussed the ways DEQ and WRD staff work together to coordinate and implement water regulations in different areas of the state.

**The Intersection of Water Quantity and Water Quality Programs*****Interagency Coordination***

Dwight French, WRD Water Rights Manager, and Karen Tarnow, DEQ Assistant to the Water Quality Administrator, presented the 1997 recommendations of the Water Quality and Quantity Task Force. Commissioners discussed on-going and future interagency coordination on many of the issues that the Task Force identified.

***TMDL Development and Implementation***

Dick Pedersen, DEQ Watershed Management Section Manager, described the purpose and schedule for developing Total Maximum Daily Loads (TMDLs) to improve the quality of Oregon's impaired waterways. Mr. Pedersen then gave an overview of the Umatilla Basin TMDL, which demonstrated the ways water quantity can influence water quality problems in a system. Don Butcher, DEQ Eastern Region TMDL Specialist, and Mike Ladd, WRD North Central Region Manager, described the efforts of various stakeholders in the basin to restore stream flows. Tom Paul, WRD Field Services Administrator, and Mr. Pedersen concluded the presentation by describing lessons learned in the TMDL process and tools available for addressing stream flow issues to improve water quality. Commissioners discussed efforts to find innovative solutions to water quality-quantity challenges, and commended the Departments for their coordination and support of the local solution process.

***Water Reuse Initiative***

Mike Llewelyn, DEQ Water Quality Administrator, introduced DEQ's Water Reuse Initiative, an effort to encourage the reuse of wastewater in anticipation of growing future demands on Oregon's water resources. Mr. Llewelyn and Tom Paul, WRD Field Services Administrator, then gave an overview of DEQ and WRD water reuse responsibilities. Commissioners discussed opportunities and challenges associated with building support for reusing wastewater in various areas of the state.

**Commission Discussion and Closing Comments**

Commissioners discussed current issues and opportunities related to merging water quality and water quantity requirements. A panel of DEQ and WRD staff responded to questions. Members of each Commission expressed appreciation for Department efforts to align agency programs and jointly address management issues, and asked the Directors to continue coordination efforts and update the Commissions over time.

WRC Chair Dan Thorndike adjourned the meeting at approximately 5:30 p.m. Following the meeting, Commissioners held a joint reception to build relationships and discuss water quality-quantity issues in an informal setting. The reception concluded the joint meeting.

**Friday, June 7, 2002<sup>[3]</sup>**

The Commission held an executive session at 8:00 a.m., to consult with counsel concerning legal rights and duties with regard to current and potential litigation

involving the Department. Executive session was held pursuant to ORS 192.660(1)(h).

At approximately 8:30 a.m., Chair Eden called the regular EQC meeting to order and agenda items were taken in the following order.

**A. Approval of Minutes**

Commissioner Malarkey moved the Commission approve draft minutes of the April 23-25, 2002, EQC meeting. Commissioner Van Vliet seconded the motion and it passed with four "yes" votes.

**B. Action Item: Consideration of Pollution Control Facility Tax Credits**

Holly Schroeder, Acting DEQ Management Services Division Administrator, gave an overview of Pollution Control Facility Tax Credit requests, and introduced Maggie Vandehey, DEQ Tax Credit coordinator, to present applications to the Commission. Ms. Vandehey recommended the Commission approve tax credit requests from citizens, businesses and industry members for technology and process investments that reduce environmental pollution. The Commission discussed the applications with Ms. Schroeder and Ms. Vandehey. Commissioner Bennett moved the Commission approve Pollution Control Facility Tax Credit applications as recommended by the Department. Commissioner Malarkey seconded the motion and it passed with four "yes" votes.

**C. Director's Dialogue**

Director Hallock discussed current events and issues involving the Department with Commissioners, including the state budget situation and an update on DEQ's development of legislative concepts and budget requests for the 2003 Session.

**D. Action Item: Umatilla Chemical Agent Disposal Facility Permit Modification**

Wayne Thomas, DEQ Administrator of the Chemical Demilitarization Program, proposed a Class 3 Modification to the hazardous waste permit for the Umatilla Chemical Agent Disposal Facility (UMCDF). Mr. Thomas explained that the permit change would increase the amount of available storage at UMCDF for hazardous wastes generated during destruction of chemical agents, scheduled to start in February 2003. The U.S. Army requested the permit modification in February 2000, and DEQ solicited public input on the change in 2000 and 2002. Mr. Thomas introduced Sue Oliver, DEQ Hazardous Waste policy specialist, and Nick Speed, DEQ Hazardous Waste permit specialist, to explain the proposal in detail.

The Commission discussed the proposed permit modification with Director Hallock, Mr. Thomas, Mr. Speed and Ms. Oliver. Commissioner Van Vliet moved the Commission approve the proposed permit modification. Commissioner Bennett seconded the motion and it passed with four "yes" votes. The Commission directed the Department to prepare an order modifying the permit for the Director to sign on the Commission's behalf.

In addition, the Commission discussed concerns expressed by the Confederated Tribes of the Umatilla Indian Reservation regarding the Brine Reduction area at UMCDF, and asked the Department to prepare

an informational item on this topic for the July 25-26, 2002, EQC meeting.

**E. Work Session: Revising Enforcement and Compliance Rules**

Anne Price, DEQ Administrator of the Office of Compliance and Enforcement, described DEQ's ongoing efforts to revise agency enforcement rules. In January 2000, the Commission provided direction for improving compliance with and enforcement of Oregon's environmental regulations. At this meeting, Ms. Price summarized rulemaking progress and solicited input from the Commission. Commissioners discussed improvements with Director Hallock and Ms. Price, and commended the Department for their attention to this important rulemaking.

**Public Forum**

At approximately 11:30 a.m., Chair Eden asked whether anyone wished to provide public comment. Jeff Allen, Executive Director of the Oregon Environmental Council (OEC), spoke to the Commission about OEC's interests and priorities for improving environmental quality. Commissioners briefly discussed OEC's activities with Mr. Allen, and thanked him for his comments.

**F. Discussion Item: Role of Hearings Officers as Agents of the Commission**

Anne Price, DEQ Administrator of the Office of Compliance and Enforcement, facilitated Commission discussion about the role of Hearings Officers, which act as agents of the Commission on appeals of Department enforcement actions. Commissioners discussed the function of Hearings Officers with attention to the scope of their review and decision making in contested case appeals.

**G. Commissioners' Reports**

Commissioner Malarkey reported on her recent meeting with the Lane Regional Air Pollution Authority and thanked Andy Ginsburg, DEQ Air Quality Administrator, for his continued coordination with the group to address their funding concerns. Commissioner Malarkey also expressed her concerns about turbidity levels in the McKenzie River, caused by water releases from Cougar Dam by the Army Corps of Engineers as part of a long term improvement project. Director Hallock discussed water quality concerns and projected benefits of this project with the Commission.

Chair Eden reported that on May 14, 2002, the Governor's Chemical Stockpile Emergency Preparedness Program (CSEPP) Executive Review Panel issued a unanimous recommendation that an adequate emergency response program was in place and fully operational to protect communities surrounding the Umatilla Chemical Depot. Chair Eden emphasized that the success of achieving consensus among panel members was due in part to Director Hallock's early involvement in and coordination of the process.

Chair Eden adjourned the meeting at approximately 1:15 p.m.

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[1] Staff reports and written material submitted at the meeting are made part of the record and available from DEQ, Office of the Director, 811 SW Sixth Avenue, Portland, Oregon 97204; phone: (503) 229-5990.

[2] Commissioner Reeve was absent on June 7, 2002.

[3] Commissioner Reeve was absent on June 7, 2002.

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For more information contact Mikell O'Mealy at 503-229-5301.

DEQ Online is DEQ's official Internet site.  
If you have questions or comments contact DEQ's webmaster.