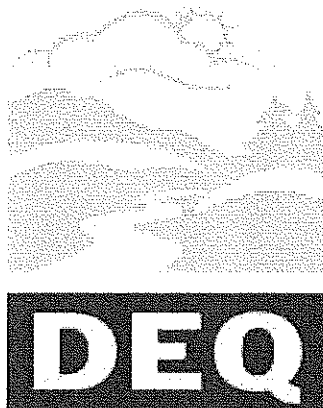


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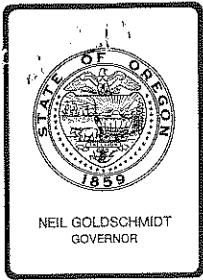
**OREGON  
ENVIRONMENTAL QUALITY  
COMMISSION MEETING  
MATERIALS**



**State of Oregon  
Department of  
Environmental  
Quality**

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## *Environmental Quality Commission*

811 SW SIXTH AVENUE, PORTLAND, OR 97204 PHONE (503) 229-5696

### MEMORANDUM

To: Environmental Quality Commission  
From: Director  
Subject: Agenda Item I, March 11, 1988, EQC Meeting

Proposed Adoption Of Increases To The On-Site Sewage Disposal Fee Schedule (OAR 340-71-140) And Modification To The Definition Of "Repair" [OAR 340-71-100(93)].

### Background

At its December 11, 1987 meeting, the Environmental Quality Commission authorized the Department to conduct four (4) public hearings on proposed increases to the On-Site Sewage Disposal Fee Schedule and a proposed modification to the definition of "Repair" of an on-site system (See Exhibit "A" for a copy of the December 11, 1987 Agenda Item D).

Notice of Public Hearing (Attachment 1) was provided by publication in the January 1, 1988 Oregon Bulletin. Notice was also mailed to the Department's general on-site sewage disposal mailing list and all currently licensed sewage disposal service businesses.

Public hearings were held in Pendleton, Bend, Roseburg and Portland January 25, 26, 27, and 28, 1988, respectively. Two (2) people attended the hearings and offered oral testimony. Written comments were received from six (6) respondents. The Hearings Officer report summarizing all testimony is contained in Exhibit "B".

### Summary of Proposals and Evaluation of Testimony

Following are a summary of proposals taken to public hearing, an evaluation and response to testimony, and staff recommendations for modifications to the original fee schedule proposed. Exhibit "C" contains recommended rule language and the On-Site Sewage Disposal Fee Schedule proposed for adoption by the Commission.

1. The Department proposed to amend the definition of "Repair" [OAR 340-71-100(93)] to distinguish between a major repair, defined as replacement of the soil absorption system and minor repair, defined as replacement of any part of the on-site sewage disposal system except the soil absorption system. This definition was modified to conform to the proposed fee schedule that distinguishes between a "major repair" and a "minor repair" and assesses a fee to more nearly cover the cost of services provided.

The Department received no testimony on this proposal. The final proposal is the same as the original (Exhibit "A") presented to the Commission on December 11, 1987.

2. The Department proposed increases to the On-Site Sewage Disposal Fee Schedule (OAR 340-71-140) to more nearly cover the cost of providing services. Current projections for the FY 87-89 biennium indicate that the cost of providing direct service will exceed direct service fee revenues and budgeted general fund support. The proposed fee increases are based on the estimated time to perform each activity within a 20 mile radius of the office and the basic hourly cost of technical and clerical assistance, plus the cost of overhead, services, supplies, travel, and benefits. The proposed fee increases were projected to generate sufficient fee revenue, at present activity levels, to fund approximately 89 percent of program costs. Proposed fee increases ranged from 6 percent for site evaluations to 380 percent for pumper truck inspections.
  - A. Oral and written testimony were received from a septic tank pumper from LaPine and written testimony was received from septic tank pumpers from Albany, Estacada, Canyon City, and Tillamook. All of these individuals opposed the proposed fee increase from \$25 to \$95 for pumper truck inspection.

Mr. Miller (Aligator Septic Service, LaPine) would like the Department to provide a site in LaPine where he can land apply septage from his septic tank pumping business. Mr. Antoni's letter (Cascade Septic Tank Service, Estacada) indicates he thought the Department was proposing a 50 percent increase in the annual Sewage Disposal Service Business License fee from \$100 to \$150. Mr. Rhodaback expressed opposition to the proposed increase in the pumper truck inspection fee. He also questioned why counties could not integrate the DEQ program into theirs. Mr. Stone (Roto Rooter Service, Tillamook) feels the proposed fee increase for pumper truck inspection is not needed. Mr. Bess, from Canyon City, based his opposition on the fact that Department staff from Pendleton did not make a special trip to Canyon City to inspect his pumper truck. When Department staff have other on-site activities scheduled in Grant County, they contact Mr. Bess by phone and make arrangements for him to bring his pumper truck into John Day for inspection.

Currently, pumper trucks are inspected annually to ensure integrity of equipment so spillage of septage will not occur and create a potential health hazard. The pumper truck tank is inspected to make sure it is watertight and that access holes have adequate lids to prevent spillage. Sewer hoses are checked for caps and proper storage facilities to prevent spillage of sewage onto the ground. The truck is also inspected to ensure it contains a pressurized wash water tank, a supply of disinfectant, and adequate implements for clean up of sewage.

Staff's original proposal for a \$95.00 pumper truck inspection fee was based on the understanding that a special trip to the pumper truck location was involved in conducting inspections. The Department contacted several DEQ direct service offices and contract county offices to find out how they conducted pumper truck inspections. They all follow the procedure of either having pumper truck owners bring their trucks to the office or another convenient location for inspection. This practice places less demand on the time of the individual conducting the pumper truck inspection than staff originally projected.

Based on information that inspections are integrated into other travel or pumpers bring their trucks to the office location, the proposed fee increase has been modified from \$95 to \$35 for the first truck inspected. This reflects a \$10 increase over the existing fee. Inspection fees for each additional truck at the same time are proposed at \$25.00. This \$10 fee increase for the first truck covers the increased cost in providing this service.

Staff discussed the septage disposal problem in LaPine with Mr. Miller following the public hearing and offered Department assistance in site selection and approval. It is not the Department's role however, to assist Mr. Miller in procuring property for septage disposal. Mr. Antoni's question about the 50 percent increase in the annual Sewage Disposal Service Business License fee was due to a misunderstanding. Mr. Antoni is now aware that the current license fee was established at \$150 by the Commission in 1983. Proceeds from this fee are used by the Department to fund licensing activities, technical assistance for septage management plans, rule development and distribution, and installer training.

- B. Mr. Richard Polson, Chief Soil Scientist from Clackamas County, presented oral and written testimony in favor of proposed fee increases for performing the other on-site activities. Mr. Polson suggested that the Department consider adding a \$25 fee to cover the cost of re-inspection of systems requiring corrections and an additional \$25 fee on standard systems that utilize a pump to convey effluent to the disposal field.

The Department considered Clackamas County's suggestion and agrees it might be desirable to require fees for second and subsequent inspections if needed to assure the system is properly installed. Owners of systems not properly installed would pay for those extra costs incurred by the agent for returning to the site and re-inspecting the system. However, the administrative process of assessing and collecting fees subsequent to permit issuance would be difficult and potentially expensive. Further, property owners might view the need to conduct another inspection as solely a means to collect more money. Consequently, the Department does not believe the benefits of a re-inspection fee would offset the additional burdens placed upon the permittee or the administrative difficulties for the Department to collect the fee. The Department also does not believe that the additional time necessary to inspect a standard system with a pump is sufficient to justify an additional fee.

Department staff suggested that Clackamas County could consider increasing their construction permit fee, by \$25 to cover the added expense of re-inspecting or inspecting the pump systems. Comparison of current Clackamas County fees with current DEQ fees (Attachment 2) indicates there is sufficient latitude in the fee schedules to allow Clackamas County to increase their construction permit fee \$25 and not exceed the proposed DEQ maximum fee. Staff discussed this issue with Mr. Polson and he agreed that Clackamas County could raise their permit fee \$25, to cover costs of inspecting dosing tanks and pumps, and stay below the maximum proposed by the Department. They are also be able to accommodate the cost of re-inspections within their current fee structure without exceeding maximum fees proposed by the Department.

3. The fee schedule proposed for adoption also reflects an increase in the site evaluation fee for commercial facilities from \$150 to \$160 to be consistent with the site evaluation fee for a single family residence. This proposed \$10 increase was inadvertently left off the draft fee schedule taken to public hearing. Site evaluation fees for sewage flows in excess of 5,000 gallons per day were deleted from the fee schedule because these facilities are covered by a WPCF permit and the site evaluation fee is included in the permit fee.

#### Alternatives and Evaluation

The alternatives are as follows:

1. Adopt the original proposed rule amendments as presented to the Commission December 11, 1987. The original proposed amendments are contained in Exhibit "A" of this report.

2. Adopt the proposed rule amendments which have been modified from the original proposals, based upon staff review and analysis of testimony received through the hearings process. These are attached to this staff report as Exhibit "C".
3. Do not adopt any proposed rule amendments at this time.

The procedures for the Commission to follow in the rule-making process are set forth in ORS Chapter 183 and OAR Chapter 340, Division 11.

Department and contract county staff favor a moderate fee increase to partially offset on-site sewage disposal program costs. The proposed fee increase is based on estimated costs of providing services. The cost analyses are discussed in detail in Exhibit "A". Public hearings were conducted to provide public comment in the draft rules. Testimony was limited, but sufficient to allow staff to make positive modifications to the initial proposal. Testimony appears in the Hearings Officer's Report (Exhibit "B" and the analysis of this testimony is contained in this report under the heading of "Summary of Proposals and Evaluation of Testimony".

The proposed fee schedule contained in Exhibit "C" was modified to address concerns of those who presented testimony in the rule-making process. The Department recommends the Commission adopt the proposed rule amendments as presented in Exhibit "C" (Alternative 2).

#### Summation

1. ORS 454.625 provides that the Commission, after hearing, may adopt rules for on-site sewage disposal.
2. On December 11, 1987, the Commission authorized four (4) hearings to receive testimony on a series of rule amendments proposed to modify the definition of "Repair" and increase fees for services provided in the on-site program.
3. Notice of hearing was published in the Oregon Bulletin on January 1, 1988, and mailed to various Department mailing lists of known interested individuals, in accordance with ORS Chapter 183 and OAR Chapter 340, Division 11.
4. Public hearings were held in Pendleton, Bend, Roseburg, and Portland in January.
5. Several fees were modified based on input and testimony received during the hearing process. The final proposed rule amendments are contained in Exhibit "C".

EQC Agenda Item I  
March 11, 1988  
Page 6

Director's Recommendation

Based upon the summation, it is recommended that the Commission adopt the proposed amendments to OAR Chapter 340, Division 71, as presented in Exhibit "C".

Fred Hansen

Attachments (3)

- A Agenda Item I, December 11, 1987
- B Hearings Officer's Report and Written Testimony Received
- C Proposed Amendments to OAR Chapter 340, Division 71.

RCP:c  
WG3020  
229-5289  
2/8/88

Oregon Department of Environmental Quality

## A CHANCE TO COMMENT ON...

PROPOSED AMENDMENT TO THE ON-SITE SEWAGE DISPOSAL RULE,  
OAR 340-71-140, TO INCREASE FEES

Date Prepared: December 14, 1987  
Notice Issued: December 17, 1987  
Comments Due: January 29, 1988

- WHO IS AFFECTED:** Persons submitting applications for on-site sewage disposal activities.
- WHAT IS PROPOSED:** The DEQ is proposing a fee increase to help offset program expenditures. A copy of the proposed fee schedule may be obtained by writing the Department of Environmental Quality, Sewage Disposal Section, 811 S.W. Sixth Avenue, Portland, OR 97204.
- WHAT ARE THE HIGHLIGHTS:** The fee increase is proposed to raise fee revenues to cover a greater percentage of the costs of providing on-site services.
- HOW TO COMMENT:** Public hearings, are scheduled at the following locations on the dates and times indicated:

Pendleton

State Office Bldg.  
First Floor Conference Room  
700 S.E. Emigrant  
Pendleton, OR  
January 25, 1988 at 1:00 p.m.

Bend

State Office Bldg.  
Conference Room  
2150 N.E. Studio Rd  
Bend, OR  
January 26, 1988 at 10:00 a.m.

Roseburg

Dept. of Environmental Quality  
State Office Bldg.  
Conference Room B  
1937 W. Harvard Blvd.  
Roseburg, OR  
January 27, 1988 at 10:00 a.m.

Portland

Dept. of Environmental Quality  
Room 4, 4th Floor  
811 S.W. Sixth Avenue  
Portland, OR  
January 28, 1988 at 10:00 a.m.

A Department of Environmental Quality staff member or an Environmental Quality Commission Hearing Officer will be named to preside over and conduct the hearings.

Written comments may be sent to the Department of Environmental Quality, Sewage Disposal Section, 811 S.W. Sixth Avenue, Portland, Oregon 97204, but must be received by 5:00 p.m. on January 29, 1988.

- WHAT IS THE NEXT STEP:** After reviewing all the public testimony and making appropriate changes, the fee schedule will be presented to the Environmental Quality Commission, for adoption at their regular meeting March 11, 1988.

WC2694.A



811 S.W. 6th Avenue  
Portland, OR 97204

11/1/86

**FOR FURTHER INFORMATION:**

Contact the person or division identified in the public notice by calling 229-5696 in the Portland area. To avoid long distance charges from other parts of the state, call 1-800-452-4011.



Comparison of Current Fees and Proposed Fees  
For Clackamas County and DEQ

	<u>Current Fee</u>		<u>Proposed Fee</u>	
	<u>Clackamas County</u>	<u>DEQ</u>	<u>Clackamas County</u>	<u>DEQ</u>
<u>New Construction</u>				
Standard System	60	120	100	160
Capping Fill	120	240	175	275
Saprolite	60	120	100	160
Holding Tank	120	120	160	160
Pressurized Distribution	120	120	160	160
Redundant	60	120	100	160
Sand Filter	150	280	220	295
Seepage Trench	60	120	100	160
Steep Slope	60	120	100	160
Tile Dewatering	120	120	160	160
<u>Repairs</u>	35	35	75	75
<u>Alterations</u>	60	95	100	140
EXISTING DISPOSAL SYSTEM REVIEWS	60	60	100	100
SOIL FEASIBILITY				
PUMPER TRUCK INSPECTION	25	25	50	35

WC3020

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## Environmental Quality Commission

811 SW SIXTH AVENUE, PORTLAND, OR 97204 PHONE (503) 229-5696

### MEMORANDUM

To: Environmental Quality Commission

From: Director

Subject: Agenda Item D, December 11, 1987 EQC Meeting

Request For Authorization To Conduct Public Hearings On Proposed Increases to the On-Site Sewage Disposal Fee Schedule (OAR 340-71-140) and Proposed Modification to the Definition of "Repair" of An On-Site System.

### Background and Problem Statement

Maximum fees for providing on-site sewage disposal services were established by the 1973 legislature but provision was made by the 1979 legislature to allow the Environmental Quality Commission to approve fee increases if they do not exceed actual cost of providing services. The Commission has periodically approved fee increases for Lane, Linn, Jackson, Clackamas, Marion, and Multnomah Counties that exceeded the statewide schedule. They also periodically approved fee increases for the statewide fee schedule and approved addition of a surcharge fee on some activities to be collected to help finance rule development, training, and technical assistance activities conducted by Department staff.

The last increase to the statewide on-site sewage disposal fee schedule was approved by the Commission on May 20, 1983. Since that time, fee revenues have been insufficient to cover the expenses of conducting on-site sewage disposal activities, resulting in higher general fund support than that which is budgeted. General funds of \$131,686 in FY 81-83, \$368,336 in FY 83-85, and \$133,217 in FY 85-87 were budgeted over the last three bienniums totaling \$633,239. By comparison over \$900,000 in general fund support was required to cover the fee revenue shortfall. The Department's FY 87-89 general fund budget for supporting on-site sewage disposal activities, including support for higher travel costs in eight Eastern Region counties, is approximately \$133,000. The beginning fund fee revenue balance for the FY 87-89 biennium is less than \$40,000.

Current projections for the FY 87-89 biennium indicate that the costs for providing direct service will exceed direct service fee revenue by \$176,727 even with the \$133,000 general fund support and a reduction of approximately 2 FTE in resource assigned to on-site sewage disposal activities. A fee revenue shortfall of approximately \$340,000 is projected if no general fund support were to be considered. The goal of the Legislature and the Department is to operate the on-site sewage disposal program on a fee for service basis with only limited general fund support. Even with budgeted general fund support, this goal cannot be achieved under the current fee schedule.

To address this concern, the Department convened a Citizen's Advisory Committee in January 1987 to evaluate this and other on-site sewage disposal program issues and propose changes where the Committee determined they were needed to improve efficiency and address the gap between fee revenues and program expenses.

#### Alternatives and Evaluation

1. Authorize a public hearing for a fee schedule which increases fees to cover the entire cost of conducting the program.

The Department's projected FY 87-89 on-site sewage disposal program expenses are \$961,939, plus indirect expenses on fee revenue collected. Approximately \$734,572 is projected to be needed to conduct direct service program activities in 13 counties for which the Department has the responsibility. Direct service fee revenues for the FY85-87 biennium were \$393,538. Assuming the same level of activity through the 1987-89 biennium, and no continued general fund support, the direct service fees would need to be increased by slightly more than 100 percent to cover the entire program costs with fees. Attachment A shows fee revenues for direct services provided during calendar year 1986 under current fees and surcharges. It also shows projected fee revenues with the same level of activity and a 100 percent increase in fees. No change in surcharge is shown. A doubling of fees would result in total direct service fee revenue for the biennium of approximately \$712,660, as compared to current fee revenue of \$393,538. Fee income would be slightly less than the projected direct service cost of \$734,572.

A fee schedule to generate the total revenue needed would be inequitable because a portion of the fees collected in populated counties would subsidize direct service activities in sparsely populated counties. The Citizen's Advisory Committee recommended that the Department pursue revisions to the fee schedule, however, they suggested that a 100 percent fee increase would result in unreasonably high fees that could possibly discourage voluntary public participation in the program.

2. Authorize a public hearing for a fee schedule which increases fees sufficiently to cover most of the costs of conducting the program.

A table comparing the current fee schedule with the proposed fee schedule and estimated cost of providing these services appears in Attachment B. These costs are based on the estimated time to perform each activity within a 20 mile radius of the office (Attachment C), a conservative hourly cost of providing technical assistance and the cost of clerical assistance. The hourly rate of \$27.00 consists of the basic salary for a Waste Management Specialist plus overhead, supplies, services and travel, and benefits. The clerical assistance cost is \$38.80 for each activity. Proposed fee increases range from 6 to 450 percent. A discussion of activities where the cost to provide service is substantially higher than the current fee is presented below.

- a. Current repair permit fees are substantially lower than the cost to conduct this activity. Repair permit fees for residential system repairs have been intentionally kept low to encourage repair of failing systems. Current repair fees cover about 25% of the cost of repair activities.

In addition, many failures occur either on small lots or on parcels with serious soil or groundwater limitations that complicate successful repairs. As a result, staff spends considerably more time providing technical assistance to resolve problems associated with issuing a repair permit than they do issuing a new construction installation permit.

Linn County petitioned the Environmental Quality Commission in June 1986 to approve a repair fee above the maximum allowed in DEQ rules. Their request was based on a time study of on-site sewage disposal services provided by the County that showed on the average they spend 4.17 hours of technical staff time on each residential repair permit. During the period of their study, the average rate of income for all permit related activities was \$23.87 per hour, whereas the overall hourly cost of the County to provide technical services to conduct the on-site program was determined to be \$39 per hour. The average repair permit costs Linn County \$163 -- (4.17 hours x \$39). Since the County could not charge more than \$35 at that time, the difference was subsidized by the County general fund.

The Commission approved this request and Linn County raised their repair permit fee to \$75. Linn County records, since the fee increase June 13, 1987, indicate that the fee increase does not appear to discourage people from applying for a repair permit.

The Citizens Advisory Committee agreed that existing repair fees were too low, but were reluctant to suggest raising the fee to cover the entire cost if it would discourage people from repairing failing systems. They recommended that repair fees be raised to more nearly cover cost of services. In addition, they suggested a surcharge be added to the repair fee. The Committee suggested the Department distinguish between major repairs, involving replacement of the soil absorption system, and minor repairs such as replacement of a septic tank or broken pipe. They suggested a \$75 fee for a major repair and \$50 fee for a minor repair. The Department's costs for conducting repair activities are \$145 for major repairs and \$100 fee for minor repairs.

- b. A significantly higher fee also is being proposed for conducting loan inspections (existing system evaluation). Loan inspections are a service that lending institutions require. The current \$60 fee does not cover the expense of providing this service. The Citizen's Advisory Committee members agreed the fee should be raised to pay for the service. The Committee also agreed that inspection responsibilities need not be limited to the Department or its Agents,

but can be conducted by any person lending institutions deem capable, since the Department does not require existing system evaluations for loan purposes. Lending institutions may request this service be provided by others such as licensed installers and on-site consultants. This will allow the Department and its agents to address higher priority activities. However, when lending institutions request this activity be conducted by the Department or County staff, the proposed fee of \$100 would be adequate to cover the cost.

- c. The fee to conduct an authorization notice file review to enable connection of a system to building plumbing (beyond one year of issuance of a Certificate of Satisfactory Completion) is proposed to be increased from \$10 to \$55.
- d. Pumper truck inspection fees are proposed to be increased from \$25 to \$95 for the first vehicle each visit and from \$25 to \$50 for each additional vehicle during the same inspection visit.

Fees for providing other on-site services are also too low to cover the cost of services (Attachment B). All proposed fee increases are suggested based on actual costs or recommendations of the Citizen's Advisory Committee. No fee increase is proposed for some types of activities where either the fee is in line with the cost to provide service or the fee is set by statute.

A proposed fee schedule is shown in Attachment E. The proposed definition of "repair" to differentiate between major and minor fees is shown as Attachment D. These fees would generate \$166,420 (\$83,210 per year) of additional revenue during the 1987-89 biennium based on the current level of activity. This fee schedule would result in fee revenue covering approximately 89% of the projected program costs, with the remaining costs to be covered by the budgeted general fund support.

3. Do not authorize public hearing on the proposed fee increase:

This alternative will likely result in a direct service fee revenue shortfall of \$176,727 during the FY 87-89 biennium.

Summation

1. The 1973 Oregon Legislature made the Department of Environmental Quality responsible for the on-site sewage treatment and disposal program and authorized collection of fees for specified activities. The 1979 legislature made provision for the Environmental Quality Commission to approve fee increases if they did not exceed actual cost of providing services.
2. The last major fee increase was approved May 20, 1983. In spite of the fee increase, the Department has not been able to operate the on-site program within the fee revenues resulting in a continuing need for general fund monies above that which are budgeted.

3. The Department convened a Citizens Advisory Committee January 7, 1987 to evaluate the current on-site sewage disposal program and recommend changes where the Committee determined they were needed to improve efficiency and reduce the gap between fee revenues and program expenditures.
4. Two fee increase alternatives were evaluated. An across-the-board increase of 100% was considered unreasonable. The Citizens Advisory Committee recommended a fee increase sufficient to cover the actual cost of providing minimum services, except for repair activities. They recommended that the fees not be raised too high because of concern that voluntary participation for repairs would be discouraged.
5. The proposed fee increase will generate sufficient fee revenue, at present activity levels, to cover approximately 89% of the program costs with fees.

Directors Recommendation

Based on the summation, the Director recommends that the Commission authorize the Department to hold public hearings on the proposed amendment to the on-site fee schedule, Alternative 2.

Fred Hansen

Attachments: 7

- A. DEQ Direct Service County Fee Revenue for Calendar Year 1986 Compared to Fee Revenue if Current Fees Were Increased 100 Percent
- B. Current Fee Schedule Compared to Proposed Fee Schedule, and Estimated Cost of Providing Service.
- C. Estimated Time Required to Perform Various On-Site Activities
- D. Proposed Rule Language for the Definition of Repair
- E. Proposed On-Site Fee Schedule
- F. Draft Public Notice
- G. Statement of Need for Rulemaking

Mary Halliburton:c1  
WC2694  
229-6099  
November 23, 1987

## Attachment A

Current DEQ Direct Service County Fee Revenue For Calendar Year 1986  
Compared to Fee Revenues If Current Fees Were Increased 100 Percent

	1986 Fee Revenue (\$)	Fee Revenue (\$) with 100% Increase in 1986 Fees
<b>SITE EVALUATIONS</b>		
1st Lot	77,220	147,420
Additional Lots	14,500	27,500
<b>CONSTRUCTION PERMITS</b>		
Standard System		
Less than 6 months *	14,625	28,125
More than 6 months *	21,000	41,160
Capping Fill Systems	2,205	4,365
Holding Tank Systems	1,375	2,695
Pres. Dist. Systems	2,250	4,410
Sand Filter	3,705	7,345
Other Alt. Systems	625	1,225
Alterations	2,800	5,600
<b>REPAIRS</b>		
Single Family	7,805	15,610
<b>RENEWALS</b>		
Field Visit	845	1,625
No Field Visit	870	1,450
<b>AUTHORIZATION NOTICES</b>		
Field Visit	21,320	41,000
No Field Visit	750	1,250
<b>EXISTING SYSTEM EVALUATION</b>	9,900	19,800
<b>DENIAL REVIEWS</b>	840	1,680
<b>PUMPER TRUCK INSPECTION</b>	775	1,550
<b>ANNUAL INSPECTION</b>	1,260	2,520
<b>TOTAL</b>	184,670	356,330

\* If the applicant files a permit application within 6 months of site evaluation, lower fee for standard system applies. If longer than 6 months, higher fee applies.

Attachent B

Current Fee Schedule Compared to Proposed Fee Schedule,  
and Estimated Cost of Providing Service.

	Current Fee (\$)	Proposed Fee (\$)	Estimated Cost of Providing Service
<b>SITE EVALUATIONS</b>			
1st Lot	\$ 150	\$ 160 *	\$ 145
Additional Lots	130	130 *	115
<b>CONSTRUCTION PERMITS</b>			
<u>Standard System</u>			
Less than 6 months **	60	105	110
More than 6 months **	120	160	155
Capping Fill Systems	240	275	300
Holding Tank Systems	120	160	170
Pres. Dist. Systems	120	160	170
Sand Filter	280	295	345
Other Alt. Systems	120	160	170
Alterations	95	140	145
<b>REPAIRS</b>			
Single Family	35	75	145
<b>RENEWALS</b>			
Field Visit	60	100	100
No Field Visit	10	55	55
<b>AUTHORIZATION NOTICES</b>			
Field Visit	60	100	100
No Field Visit	10	55	55
<b>EXISTING SYSTEM EVALUATION</b>	60	100	100
<b>DENIAL REVIEWS</b>	60	100	100
<b>PUMPER TRUCK INSPECTION</b>	25	95	95
<b>ANNUAL INSPECTION</b>	60	100	100

\* Even though the proposed fee is above the estimated cost, the estimated cost is generally a conservative estimate. In addition, the advisory committee recommended this fee level in full recognition of the lower estimated cost.

\*\* If the applicant files a permit application within 6 months of site evaluation, lower fee for standard system applies. If longer than 6 months, higher fee applies.



## Estimated Time Required To Perform Various On-Site Activities

### SITE EVALUATION AND PERMIT (Standard System) 20 MI. FROM OFFICE

<u>Site Evaluation Activities</u>	<u>No.</u> <u>Minutes</u>	<u>Permit Activities</u> (No Site Visit Required)	<u>No.</u> <u>Minutes</u>	<u>Permit Activities</u> (Site Visit Required)	<u>No.</u> <u>Minutes</u>
Review of Application	10				
Call to Applicant	10	Pull and Review Site Evaluation	10	Pull and Review Site Evaluation	10
Travel to Site	30	Review Application	10	Review Application	10
Site Evaluation (Test Holes)	60	Complete Permit	<u>10</u>	Travel to Site	30
Field Notes	15			Site Review	30
Travel (Return)	30		30 min.	Field Notes	10
Call to Applicant	15		.5 hrs.	Travel (Return)	30
Complete Record	<u>30</u>			Issue Permit	<u>15</u>
	23 min.	<u>Certificate of Satisfactory Completion</u>			135 min.
	<b>3.8 hrs.</b>				2.25 hrs.
<u>Second Site Visit Necessary</u>		Travel to Site	30	<u>Certificate of Satisfactory Completion</u>	
		Inspection of System	30		
		Field Notes	15	Travel to Site	30
Travel (To and From)	60	Travel (Return)	30	Inspection of System	30
Site Review	30	Complete Record	<u>15</u>	Field Notes	15
Field Notes	15			Travel (Return)	30
Completion of Record	<u>15</u>		120 min.	Complete Record	<u>15</u>
	120 min.		2 hrs.		100 min.
	2 hrs.				2 hrs.
Total 5.8 hrs.		Total 2.5 hrs.		Total 4.25 hrs.	

ALTERATION OR REPAIR PERMIT 20 MI. FROM OFFICE

<u>Permit Activities</u>	<u>No.</u> <u>Minutes</u>
Review Application	10
Travel to Site	30
Site Review	20
Field Notes	15
Travel (Return)	30
Issue Permit	<u>15</u>
	120 min.
	2 hrs.

Certificate of Satisfactory Completion

Travel to Site	30
Inspection of system	20
Field Notes	15
Travel (Return)	30
Complete Record	<u>15</u>
	110 min.
	1.8 hrs.
TOTAL	3.8 hrs. Major Repair
	2.25 hrs. Minor Repair

SITE VISIT ONLY 20 MI. FROM OFFICE FOR FOLLOWING ACTIVITIES:

Denial Review -
Authorization Notice -
Annual Evaluation Alternative System -
Annual Evaluation Large System -
Annual Evaluation Temporary Mobile Home -

Activities

<u>Activities</u>	<u>No.</u> <u>Minutes</u>
Review of Application	10
Travel to site	30
Review site	30
Field Notes	15
Travel (Return)	30
Complete Record	<u>15</u>
	130 min.
	2.1 hrs.
TOTAL	2.1 hrs.

PERMIT (ALTERNATIVE SYSTEM) 20 MI. FROM OFFICE

1. <u>Permit Activities</u> (Site Visit Required)	No. <u>Minutes</u>	4. <u>Specific Systems - Activities and Time Required</u>	
Pull and Review Site Evaluation	10	(a) Evapotranspiration-Absorption (ETA) System	
Review Application	10	Pressurized Distribution Systems	
Travel to Site	30	Seepage Trench Systems	
Site Review	60	Redundant Systems	
Field Notes	15	Steep Slope Systems	
Travel (Return)	30	Tile Dewatering Systems	
Issue Permit	<u>15</u>	Split Waste Systems	
	170 min.	Cesspools and Seepage Pits	
	2.8 hrs.	Holding Tanks	
		Aerobic Systems	
		Gravel-less Trench Systems	
		- Permit Activities	2.8 hrs.
		- Cert. of Satisfactory Completion	<u>2.0 hrs.</u>
2. <u>Construction Inspections</u>			
Travel to Site	30		
Inspection	30		
Field Notes	10		
Travel (Return)	<u>30</u>		
	100 min.	(b) Capping Fill System	
	1.6 hrs.	- Permit Activities	2.8 hrs.
		- Construction Inspection (3 x 1.6 hrs.)	4.8 hrs.
		- Cert. of Satisfactory Completion	<u>2.0 hrs.</u>
3. <u>Certificate of Satisfactory Completion</u>			
Travel to Site	30		
Inspection of System	30		
Field Notes	15		
Travel (Return)	30		
Complete Record	<u>15</u>	(c) Sand Filter Systems	
	120 min.	- Permit Activities	2.8 hrs.
	2 hrs.	- Construction Inspection (4 x 1.6 hrs.)	6.4 hrs.
		- Cert. of Satisfactory Completion	<u>2.0 hrs.</u>
			11.2 hrs.

OREGON ADMINISTRATIVE RULES FOR  
ON-SITE SEWAGE DISPOSAL  
CHAPTER 340, DIVISION 71

Note: Bracketed [ ] material is proposed to be deleted.  
Underlined \_\_\_\_ material is proposed to be inserted.

340-71-100 DEFINITIONS.

- (93) "Repair" means installation of all portions of a system necessary to eliminate a public health hazard or pollution of public waters created by a failing system. Major repair is defined as the replacement of the soil absorption system. Minor repair is defined as the replacement of a septic tank, broken pipe, or any part of the on-site sewage disposal system except the soil absorption system.

Note: Bracketed [ ] material is proposed to be deleted.  
 Underlined        material is proposed to be inserted.

340-71-140 FEES-GENERAL.

- (1) Except as provided in section (5) of this rule, the following nonrefundable fees are required to accompany applications for site evaluations, permits, licenses and services provided by the Department.

ON-SITE SEWAGE DISPOSAL SYSTEMS	MAXIMUM FEE
(a) New Site Evaluation:	
(A) Single Family Dwelling:	
(i) First Lot.....	[\$150] <u>\$160</u>
(ii) Each Additional Lot Evaluated During Initial Visit .....	\$130
(B) Commercial Facility System:	
(i) For First One Thousand (1000) Gallons Projected Daily Sewage Flow .....	\$150
(ii) Plus For Each Five Hundred (500) Gallons or Part Thereof Above One Thousand (1000) Gallons, for Projected Daily Sewage Flows up to [Ten Thousand (10,000)] <u>Five Thousand (5,000)</u> Gallons.....	\$ 50
[(iii) Plus For Each One Thousand (1000) Gallons or Part Thereof Above Ten Thousand (10,000) Gallons.....	\$ 20]
(C) Site Evaluation Report Review .....	[\$ 60] <u>\$100</u>
(D) Fees for site evaluation applications made to an agreement county shall be in accordance with that county's fee schedule.	
(E) Each fee paid for a site evaluation report entitles the applicant to as many site inspections on a single parcel or lot as are necessary to determine site suitability for a single system. The applicant may	

request additional site inspections within ninety (90) days of the initial site evaluation, at no extra cost.

- (F) Separate fees shall be required if site inspections are to determine site suitability for more than one (1) system on a single parcel of land.

(b) Construction-Installation Permit:

- (A) For First One Thousand (1000) Gallons Projected Daily Sewage Flow:

(i) Standard On-Site System ..... [\$120] \$160

(ii) Alternative System:

(I) Aerobic System.....	[\$120]	<u>\$160</u>
(II) Capping Fill .....	[\$240]	<u>\$275</u>
(III) Cesspool.....	[\$120]	<u>\$160</u>
(IV) Disposal Trenches in Saprolite...	[\$120]	<u>\$160</u>
(V) Evapotranspiration-Absorption....	[\$120]	<u>\$160</u>
(VI) Gray Water Waste Disposal Sump...	[\$ 60]	<u>\$ 80</u>
(VII) Holding Tank .....	[\$120]	<u>\$160</u>
(VIII) Pressure Distribution .....	[\$120]	<u>\$160</u>
(IX) Redundant .....	[\$120]	<u>\$160</u>
(X) Sand Filter .....	[\$280]	<u>\$295</u>
(XI) Seepage Pit .....	[\$120]	<u>\$160</u>
(XII) Seepage Trench .....	[\$120]	<u>\$160</u>
(XIII) Steep Slope .....	[\$120]	<u>\$160</u>
(XIV) Tile Dewatering .....	[\$120]	<u>\$160</u>

- (iii) The permit fee required for standard, cesspool, disposal trenches in saprolite, seepage pit, steep slope and seepage trench systems may be reduced to sixty dollars [(\$60)] \$105 providing the permit application is submitted to the Agent within six (6) months of the site evaluation report date, the system will serve a single family dwelling, and a site visit is not required before issuance of the permit.

- (B) For systems with projected daily sewage flows greater than one thousand (1000) gallons, the Construction-Installation permit fee shall be equal to the fee required in OAR 340-71-140(1)(b)(A) plus \$10 for each five hundred (500) gallons or part thereof above one thousand (1000) gallons.

NOTE: Fees for construction permits for systems with projected daily sewage flows greater than five thousand (5,000) gallons

shall be in accordance with the fee schedule for WPCF permits.

(C) Commercial Facility System, Plan Review:

- (i) For a system with a projected daily sewage flow of less than six hundred (600) gallons, the cost of plan review is included in the permit application fee.
- (ii) For a system with a projected daily sewage flow of six hundred (600) gallons, but not more than one thousand (1000) gallons projected daily sewage flow ..... \$ 60
- (iii) Plus for each five hundred (500) gallons or part thereof above one thousand (1000) gallons, to a maximum sewage flow limit of five thousand (5000) gallons per day .... \$ 15
- (iv) Plan review for systems with projected sewage flows greater than five thousand (5,000) gallons per day shall be pursuant to OAR 340, Division 52.

(D) Permit Renewal:

- (i) If Field Visit Required..... [\$ 60] \$100
- (ii) No Field Visit Required..... [\$ 10] \$ 55

NOTE: Renewal of a permit may be granted to the original permittee if an application for permit renewal is filed prior to the original permit expiration date. Refer to OAR 340-71-160(10).

(E) Alteration Permit ..... [\$ 95] 140

(F) Repair Permit:

- (i) Single Family Dwelling: [..... \$ 35]
- Major ..... \$ 75
- Minor ..... \$ 50

- (ii) Commercial Facility ... The appropriate fee identified in paragraphs (1)(b) (A) and (B) of this rule applies.

21

- (G) Permit Denial Review ..... [\$ 60] \$100
- (c) Authorization Notice:
  - (A) If Field Visit Required ..... [\$ 60] \$100
  - (B) No Field Visit Required ..... [\$ 10] \$ 55
  - (C) Authorization Notice Denial Review ..... [\$ 60] \$100
- (d) Annual Evaluation of Alternative System  
 (Where Required) ..... [\$ 60] \$100
- (e) Annual Evaluation of Large System (2501 to  
 5000 GPD) ..... [\$ 60] \$100
- (f) Annual Evaluation of Temporary or Hardship  
 Mobile Home..... \$ 60
- (g) Variance to On-Site System Rules ..... \$225
- NOTE: The variance application fee may be waived  
 if the applicant meets the requirements of OAR  
 340-71-415 (5).
- (h) Rural Area Variance to Standard Subsurface Rules:
  - (A) Site Evaluation ..... [\$150] \$160
  - NOTE: In the event there is on file a site  
 evaluation report for that parcel that is  
 less than ninety (90) days old, the site  
 evaluation fee shall be waived.
  - (B) Construction-Installation Permit....The appropriate  
 fee identified in subsection (1)(b) of this rule  
 applies.
- (i) Sewage Disposal Service:
  - (A) Annual Business License ..... \$150
  - EXCEPTION: The application fee for a license  
 valid during the period July 1, 1983 through  
 June 30, 1984 shall be \$100.
  - (B) Transfer of or Amendments to License ..... \$ 75
  - (C) Reinstatement of Suspended License ..... \$100



- (D) Pumper Truck Inspection, [Each] First Vehicle  
Each Visit ..... [\$ 25] \$95  
Each Additional Vehicle, Each Visit..... \$ 50

(j) Experimental Systems:

Permit ..... \$100

- (k) Existing System Evaluation Report ..... [\$ 60] \$100

NOTE: The fee shall not be charged for an evaluation report on any proposed repair, alteration or extension of an existing system.

(2) Contract County Fee Schedules. Pursuant to ORS 454.745(4), fee schedules which exceed maximum fees in ORS 454.745(1), and Section (1) of this rule, are established for Contract Counties as follows:

- (a) Multnomah County: See OAR 340-72-070.
- (b) Jackson County: See OAR 340-72-080.
- (c) Linn County: See OAR 340-72-090.

(3) Contract County Fee Schedules, General:

- (a) Each county having an agreement with the Department under ORS 454.725 shall adopt a fee schedule for services rendered and permits and licenses to be issued.
- (b) A copy of the fee schedule and any subsequent amendments to the schedule shall be forwarded to the Department.
- (c) Fees shall not:
  - (A) Exceed actual costs for efficiently conducted services; or
  - (B) Exceed the maximum established in Section (1) of this rule, unless approved by the Commission pursuant to ORS 454.745(4).

Activity	Surcharge
(a) Site evaluation, for each site examined, based on a projected flow of:	
1,000 gallons or less .....	\$ 15
1,001 gallons to 2,000 gallons .....	\$ 30
2,001 gallons to 3,000 gallons .....	\$ 45
3,001 gallons to 4,000 gallons .....	\$ 60
4,001 gallons or more .....	\$ 75
(b) Construction-Installation Permit .....	\$ 5
[EXCEPTION: Repair permits are not subject to a surcharge.]	
(c) Repair Permit .....	\$ 5
(d) [(c)] Alteration Permit .....	\$ 5
(e) [(d)] Authorization Notice .....	\$ 5
(5) Refunds. The Agent may refund a fee accompanying an application if the applicant withdraws the application before the Agent has done any field work or other substantial review of the application.	

Attachment F

**PROPOSED AMENDMENT TO THE ON-SITE SEWAGE DISPOSAL RULE,  
OAR 340-71-140, TO INCREASE FEES**

Date Prepared:  
Notice Issued:  
Comments Due:

**WHO IS AFFECTED:** Persons submitting applications for on-site sewage disposal activities.

**WHAT IS PROPOSED:** The DEQ is proposing a fee increase to help offset program expenditures. A copy of the proposed fee schedule may be obtained by writing the Department of Environmental Quality, Sewage Disposal Section, 811 S.W. Sixth Avenue, Portland, OR 97204.

**WHAT ARE THE HIGHLIGHTS:** The fee increase is proposed to raise fee revenues to cover a greater percentage of the costs of providing on-site services.

**HOW TO COMMENT:** Public hearings, are scheduled to begin at 10 a.m. on January 4, 1988, at the following locations:

<u>Bend</u>	<u>Newport</u>	<u>Medford</u>
State Office Bldg. Conference Room 2150 N.E. Studio Rd. Bend, OR	Lincoln Co. Public Service Bldg. Public Meeting Room 210 S.W. Second Street Newport, OR	Jackson County Courthouse Room 300 10 S. Oakdale Medford, OR
<u>Pendleton</u>	<u>Portland</u>	
State Office Bldg. Suite 360 700 S.E. Emigrant Pendleton, OR	Department of Environmental Quality Room 4, 4th floor 811 S.W. Sixth Avenue Portland, OR	

A Department of Environmental Quality staff member or an Environmental Quality Commission Hearing Officer will be named to preside over and conduct the hearings.

Written comments may be sent to the Department of Environmental Quality, Sewage Disposal Section, 811 S.W. Sixth Avenue, Portland, Oregon 97204, but must be received by 5:00 p.m. on January 4, 1988.

**WHAT IS THE NEXT STEP:** After reviewing all the public testimony and making appropriate changes, the fee schedule will be presented to the Environmental Quality Commission, for adoption at their regular meeting January 29, 1988.

STATEMENT OF NEED FOR RULE MAKING

Pursuant to ORS 183.335(2), this statement provides information on the Environmental Quality Commission's intended action to adopt rules.

(1) Legal Authority

ORS 454.625 authorizes the Environmental Quality Commission to adopt rules to carry out the on-site sewage disposal program.

ORS 454.745 established fees for services provided under ORS 454.655 and ORS 454.695 and makes provision for the Commission to adopt fee increases if they do not exceed actual cost of providing services.

(2) Need For The Rule

On-site sewage disposal fees were originally adopted by 1973 Legislature. The Commission has periodically approved fee increases to offset the cost of providing on-site services. The last major fee increase was approved May 20, 1983. In spite of this fee increase, the Department has not been able to operate within fee revenues resulting in continuing need for general fund monies.

(3) Principal Documents Relied Upon In The Rulemaking

- (a) Oregon Revised Statute 454.745(4).
- (b) Oregon Administrative Rules 340-71-140.
- (c) Current DEQ direct service county fee revenue for calendar year 1986 compared to fee revenue if proposed fee increase is adopted.
- (d) Proposed on-site fee schedule.

Land Use Compatability Statement

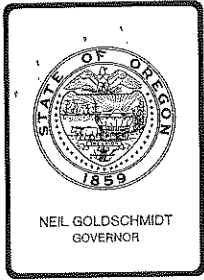
The proposed rule change (fee increase) doe not affect land use as defined in the Department's coordination program approve by the Land Conservation and Development Commission.

Fiscal and Economic Impact

The proposed fee increase for on-site services is not expected to have an adverse fiscal or economic impact on small business. Over 95 percent of all on-site services are provided either to owners of single family residences or to property owners who proposed to build a single family residence. These individuals as well as a small number of small business owners will pay increased costs for on-site sewage disposal service provided by the Department.

Robert C. Paeth

WC2694



## Environmental Quality Commission

811 SW SIXTH AVENUE, PORTLAND, OR 97204 PHONE (503) 229-5696

### MEMORANDUM

To: Environmental Quality Commission Date: February 17, 1988  
From: Bob Paeth  
Subject: Hearings Officer Report

PUBLIC HEARINGS ON PROPOSED RULE AMENDMENTS  
ON  
THE ON-SITE SEWAGE DISPOSAL RULES

The Department of Environmental Quality conducted four public hearings on proposed amendments to rules for on-site sewage disposal.

The date, time, location and person serving as Hearing's Officer for each public hearing were as follows:

#### Pendleton

State Office Bldg.  
First Floor Conference Room  
700 S.E. Emigrant  
Pendleton, OR  
January 25, 1988 at 1:00 p.m.  
Hearings Officer: Robert C. Paeth

#### Bend

State Office Bldg.  
Conference Room  
2150 N.E. Studio Rd.  
Bend, OR  
January 26, 1988 at 10:00 a.m.  
Hearings Officer: Robert C. Paeth

Roseburg

Dept. of Environmental Quality  
State Office Bldg.  
Conference Room B  
1937 W. Harvard Blvd.  
Roseburg, OR  
January 27, 1988 at 10:00 a.m.  
Hearings Officer: Robert C. Paeth

Portland

Dept. of Environmental Quality  
Room 4, 4th Floor  
811 S.W. Sixth Avenue  
Portland, OR  
January 28, 1988 at 10:00 a.m.  
Hearings Officer: Robert C. Paeth

No individuals appeared to present testimony at the public hearings in Pendleton and Roseburg. The hearings in Bend and Portland were opened with a statement of the purpose of the hearing and guidelines for conduct of the public hearing. Oral testimony was taped and written testimony was received. The Hearings Officer announced that the record would remain open to receive written testimony through January 29, 1988 at 5:00 p.m.

A list of attendees at each of the hearings is provided in Attachment 1. One person provided oral testimony and one person provided oral and written testimony. In addition, the Department received written testimony from five individuals. A summary of written testimony follows the oral comment summary. Copies of written testimony appear in Attachment 2.

A. SUMMARY OF ORAL TESTIMONY

January 25, 1988 - Pendleton, Oregon

No individuals appeared to present testimony.

January 26, 1988 - Bend Oregon

1. Mr. James Miller, Alligator Septic Service

Mr. Miller expressed opposition to the proposed \$95 fee for inspection of a pumper truck. He expressed that this fee was excessive.

January 27, 1988 - Roseburg, Oregon

No individuals appeared to present testimony.

January 28, 1988 - Portland, Oregon

1. Mr. Polson, Chief Soil Scientist, Building Services, Clackamas County Department of Transportation and Development.

Mr. Polson, speaking for Clackamas County, recommended adoption of the proposed fee schedule with two modifications. During 1987, Clackamas County issued 650 permits for on-site sewage disposal systems. Fifteen percent of the construction inspections on these systems resulted in correction notices that required multiple inspections prior to issuance of the certificate of satisfactory completion. In addition, 11.5 percent of all construction jobs were not ready for inspection at the



time of their inspection request. This resulted in a reinspection when the job was completed. To offset this expense, Clackamas County proposed that a reinspection fee of \$25 be added to the fee schedule whenever more than two inspections were required because of negligence or improper construction on the part of the applicant or installer. Mr. Polson also indicated that about 35 percent of all systems they permit utilize a pump to convey effluent to the disposal area. It requires additional time to inspect a dosing tank, pump, float, switches, and alarm system. They request that an additional fee of \$25 be added to any permit for a system, other than a sand filter or pressurized distribution system, that utilizes a pump. This would cover the added cost of inspecting the pump and components of the system associated with the pump.

Mr. Polson concluded his remarks by stating the proposed fee schedule would allow Clackamas County to adjust selected fees upward sufficiently to raise fee support of their program from 50 percent to 70 percent.

B. SUMMARY OF WRITTEN TESTIMONY

1. James Miller, Alligator Septic Service

Mr. Miller is opposed to any fee increase. He feels the Department should provide a site for septage disposal in the LaPine area. His competitor in LaPine owns a septage disposal site but will not allow him to use it. As a result, Mr. Miller has to haul septage to the Bend treatment plant. He would like to have the DEQ provide a septage disposal site in the LaPine area.

2. K. H. Antoni, Owner, Cascade Septic Tank Service

Mr. Antoni is vehemently opposed to the existing \$150 annual business license fee. He is equally opposed to the proposed increase in the pumper truck inspection fee. He is not opposed to the other proposed fee increases or modification of the definition of "Repair".

3. Homer Rhodaback, Owner, Best Pots, Portable Restroom Rentals

Mr. Rhodaback is opposed to the proposed increase in the pumper truck inspection fee. He suggests that the annual license fee should cover this inspection. He questioned why the counties could not integrate the DEQ program into theirs to make the whole program run smoother.

4. Richard Stone, Owner, Roto Rooter Sewer Service

Mr. Stone feels that the proposed fee increase for pumper truck inspection is not only out of line but totally unneeded.

5. Richard Bess, Eastern Oregon Septic Tank Service

Mr. Bess feels the proposed fee increase for pumper truck inspection is too large. He bases his opinion on the fact that Department staff from Pendleton inspection his pumper truck at their convenience when they have other work scheduled in Grant County. He makes an appointment and brings his truck to the motel where staff is staying so they can make the inspection.

6. Mr. Polson, Chief Soil Scientist, Building Services, Clackamas County Department of Transportation and Development.

Mr. Polson submitted written testimony in support of the oral testimony in Portland January 28, 1988. Clackamas County supports the proposed fee increase but would like the Department to add a \$25 reinspection fee to the schedule to cover cost of reinspection of systems prior to issuance of the certificate of satisfactory completion. In addition,

Clackamas County suggested a \$25 inspection fee for systems, other than a sand filter or a pressurized distribution system, that utilize a dosing tank and pump to convey effluent to the disposal field.

ATTENDEES AT PUBLIC HEARINGS ON  
PROPOSED AMENDMENTS TO THE  
ON-SITE SEWAGE DISPOSAL RULES

---

1. January 25, 1988 - Pendleton, Oregon

None

2. January 26, 1988 - Bend, Oregon

Name: James Miller  
Alligator Septic Service  
15866 Park Dr.  
LaPine, Oregon

3. January 27, 1988 - Roseburg, Oregon

None

4. January 28, 1988 - Portland, Oregon

Name: Richard Polson  
Building Services  
Clackamas County Department of  
Transportation and Development  
902 Abernethy Road  
Oregon City, Oregon

Alligator Septic Service  
 James Miller  
 15866 Park Dr. LaPine Ore. 97739  
 12-28-87

RECEIVED  
 JAN 04 1988

Department of Environmental Quality, Sewage Disposal Section,  
 811 S.W. Sixth Avenue, Portland, Oregon 97204,

First I would like a copy of your fee increase proposal sent to Alligator Septic Service 15866 Park Dr. LaPine, Oregon 97739.

Now I would like to state my opposition to any fee increase and my reasons for opposing them. In your letter you imply that the D.E.Q. provides on-site services for a septic pumper. In some areas this may be true but in Deschutes County where I work it isn't. In fact I was told by the Bend office that they were not required and were not responsible for the providing on-site disposal, as I have been trying to get a disposal site in Southern Deschutes County for some time.

I have found that the D.E.Q. is not a service organization but a regulatory organization. Case in point, last summer I was hired by an excavator to put water in septic tanks he was reinstalling, they had already floated up once and he did not want it to happen again, the D.E.Q. made me quit putting water in the septic tanks because a septic pumper is not suppose to pump water, now you tell me if there is a better vehicle for this purpose.

The D.E.Q. has required the commuinity of LaPine to install a treatment plant to get rid of high phosphate levels in surface water and yet did not provide an on-site disposal area. The D.E.Q. is directly responsible because they approved a plant that is inadequit and yet there are thousands of septic tanks in the area that need to be maintained. I have talked to the D.E.Q. people about this without any results.

The D.E.Q. has also given an on-site dump permit to another pumper in the area. He has dumped millions of gallons of sewage right out on top of the ground, in a high water table area, without any treatment whatsoever. This site is on private property about eight miles south of LaPine. I cannot dump there and would not want to under the very bad circumstances. This pumers son was also on the original Sewage Board in LaPine that helped choose the design of the LaPine treatment plant?!

At the present time there is only one person that is really trying to help me with an on-site disposal in LaPine, that is Jay Langley with the County. At the present time I have to haul my sewage to Bend, which is about eighty miles round trip, I cannot locally compete under these conditions. I will continue to work for an on-site disposal in the LaPine area.

Since I do not own a large track of land, my only choice is to seek permission from the U.S.F.S. of a dump site. I have the equipment to build and maintain a dump site if one can be found. Jay Langley informed me that this can be done and has been done in the past.

RECEIVED  
 JAN 04 1988  
 Water Quality Division  
 Dept. of Environmental Quality

At the present time I am planning to write letters to the Congressmen and Representatives and Environmental groups to inform them of the situation here in LaPine. I am sure I will also have some future correspondence with your office

Respectfully yours,

*James D. Miller*

owner of Alligator Septic Service.

CASCADE SEPTIC TANK SERVICE  
P.O. BOX 305  
ESTACADA, OREGON 97023  
(503)-630-6659

January 7, 1988

Department of Environmental Quality  
Sewage Disposal Section  
811 S.W. Sixth Avenue  
Portland, Oregon 97204

Gentlemen:

This letter constitutes written comment with regard to proposed amendments to the on-site sewage disposal rule for increased fees.

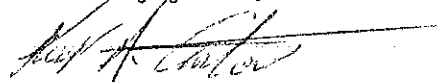
As a small business owner of a pumping service, I am vehemently opposed to item (i)(A), namely the annual business license renewal of \$150. It is by no means sound to increase that by 50% over the current rate. There should be no increase in this fee. There is not much provided as it is, with the exception of annual renewal stickers, a license and next year's renewal forms. It is completely without basis and further demonstrates how the small operator of a business is being put out of business.

In addition, I am equally opposed to item (i)(D) which not only calls for a near 300% increase in initial inspection of a truck, but sets a basis for additional truck inspections. The County inspection currently takes a total of about 5 minutes. I know of no one worth nearly \$1,200 per hour! Again, this increase is without basis and highly inflationary. It will serve to tighten the belts of small business owners and remove their ability to develop a reasonable profit.

I have no quarrel with any of the other proposed fees or wording changes. Some of the other increased fees seem quite reasonable. The two mentioned in this letter are completely out of line and I will not support them.

SUMMARY: The two fee rate increases mentioned in this letter are not reasonable and should not be instituted. Think about the effect this will have on the small business operator. If your argument is that it is not much, then please think of what would happen if every organization or agency increased their respective fees by the same percentage. WE WOULD BE OUT OF BUSINESS! Please use a sound mind and some reasonableness in establishing such fees.

Sincerely yours,



K.H. Antoni, owner



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ALBANY, OR 97321

- construction
- agricultural
- special events
- residential

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SALEM 581-4477

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JAN 15 1988

January 11, 1988

Water Quality Division  
Dept. of Environmental Quality

Department of Environmental Quality  
Sewage Disposal Section  
811 S.W. Sixth Avenue  
Portland, Oregon 97204

Dear Sirs,

We do wish to comment on the proposed fee increase. We do not believe that the statement, "offsetting program expenditures", clearly defines your need. Who couldn't use more funds to offset expenditures.

We have recieved little if any benefit from your program to date. The few times we have asked for information or assistance from the DEQ we have been told there is simply no way of obtaining the information or that the DEQ relies on local jurisdictions in that situation. In fact, the truck inspections required by the DEQ must be done by our county Sanitation Department, at the cost of \$25.00 per truck. We feel that cost should be covered by the fee we pay the DEQ. Why not let the counties integrate your program into theirs so they may do the whole job? This would make the program run smoother as one entity could handle the whole procedure.

As a small business owner it is becoming increasingly difficult to keep up with a bureaucracy that, in fact, has little or no working knowledge of individual small businesses, whether it be our industry, farming, e.t.c..

We would appreciate specific information from you as to how we would benefit from your proposed fee increase.

Yours Truly,

Homer Rhodaback  
Owner

JAN.23, 1988

OREGON DEQ  
Sewage Disposal Sec.  
811 SW 6th Ave.  
Portland, Or. 97204

RECEIVED  
JAN 25 1988

Water Quality Division  
Dept. of Environmental Quality

Dear Sirs


I am writing this in response to your proposed fee increase.

The cost of any fee should and must be based on something concrete, not pulled out of thin air; the cost must be based on a certain time or procedural cost. I feel that the proposed increase in the "Pumper Truck Inspection" is not only out of line but totally unneeded!

It takes the sum total of about 15 minutes to inspect any pumper truck using the same check sheet that has been used for years, checking the same things that were on the truck the previous year. At \$25 for 15 minutes that makes \$100 per hour! That is also an increase of 300%!! The cost of postage and copier paper has not increased that much has it?

I already pay the State of Oregon for a "Pumper" license, pay for bonds and insurance for both the DEQ and the PUC, I just can't rationalize more \$\$ for an inspection. I feel any fee increase in this area is both unreasonable and unwarranted, and it is just a ploy for money simply with no justification! I urge you to reconsider this increase.

Thank you

  
Richard Stone  
owner  
Roto Rooter Sewer Service  
PO BOX 654  
Tillamook, Or. 97141

RECEIVED  
JAN 29 1988

Attachment 2

Water Quality Division  
Dept. of Environmental Quality

December 26, 1987

Dear Dept. of Environmental Quality,

The people of Eastern Oregon Septic Tank Service feels there has been to big of an increase in price to get our trucks inspected.

The inspector of these trucks come on their own convenience, and when they have other work to do in John Day. The inspector then calls us on the phone and informs us to meet him at some motel in John Day, so they can inspect all the trucks at once, and do not make it convenient for the people.

In the month of December, Eastern Oregon Septic Tank had one job.

We feel as a little number of jobs we do in Eastern Oregon, there should not be an increase in prices for inspection.

We would also like to know what is being done about the Boyer's Store in Monument who is doing Septic Tank Pumping without PUC's and no DEQ licenses on their truck. Also they do not have a DEQ approved dump site. We don't see how we can compete, when other people are not spending the money for licenses and dumping fees. We have not done one job in Long Creek and Monument, since we've been in business.

We would like to have a reply.

Thank You,  
Richard Bess

Eastern Oregon Septic Tank Service  
I-84 Route  
Canyon City, OR, 97820



# CLACKAMAS COUNTY

## Department of Transportation & Development

January 26, 1988

WINSTON KURTH  
EXECUTIVE DIRECTOR

RICHARD DOPP  
DIRECTOR  
OPERATIONS & ADMINISTRATION

TOM VANDERZANDEN  
DIRECTOR  
PLANNING & DEVELOPMENT

Department of Environmental Quality  
Sewage Disposal Section  
811 S.W. Sixth Avenue  
Portland, OR 97204-1334

Subject: Proposed Amendments to the On-Site Sewage Disposal  
Rules, OAR 340-71-140, to Increase Fees

This office has reviewed the proposed increase in fees for on-site sewage disposal. Clackamas County recommends approval of the fees with the following additions.

The enclosed table is a breakdown of most of the drainfield inspections this office has performed during the calendar year of 1987. During this year, approximately 650 septic tank permits were issued. Allowing for inspections not shown on the report, the total number of inspections is approximately 1400. Therefore, slightly more than two inspections were required for each new septic system installed in Clackamas County. Cost accounting indicates that the minimum cost for any single inspection is at least \$35 and perhaps approaches \$40 if all appropriate costs associated with these inspections are tallied. Fifteen percent of the inspections completed in 1987 were for problem jobs, jobs in which defects in materials or workmanship required multiple inspections prior to correction. Additionally, 11½ percent of all inspections were not ready at the time of the request. Therefore, 11 percent of all of our field inspections had to be repeated simply because the jobs were not ready for inspection. Thus, one job in four had inspections that were unnecessary had appropriate construction procedures been followed, or represented wasted time on the part of Clackamas County personnel. This office would propose that a reinspection fee of \$25 be allowed whenever the job is not ready for inspection or whenever more than two inspections are required in order to repair some structural or material defect.

The data also shows that approximately one inspection in three had to do with inspecting a pump as a part of the system. This office would propose that given the inordinate amount of time that pump inspections require, additional fees of up to \$25 be charged for pump systems on systems that do not normally require pumps. In other words, if a pump is required and the system is

D.E.Q.  
January 26, 1988  
Page 2

not either a pressurized distribution or sand filter system, an additional fee of \$25 to cover the cost of pump inspections is appropriate. It has been our experience that pump inspections often take a considerable amount of time (approximately one-half hour a piece) in order to ensure that all components of the pump work properly. If fees are to reflect accurately the cost of actually doing the inspections, it would appear appropriate to add this additional fee to the program.

We believe that the listed changes would accurately reflect the inherent cost of running an appropriate program and may result in better construction in the field, since installers would be less likely to make mistakes if they knew it would cost them some money. This office would appreciate consideration of the listed amendments to your proposed rule package and would welcome a chance to discuss this matter at any time. We thank you for your time and consideration.

RICHARD L. POLSON - Chief Soils Scientist  
Building Services

/sah

ON-SITE SEWAGE DISPOSAL  
INSPECTION ANALYSIS  
1987

MONTH	NO. INSP A	SYSTEM TYPE						APPROVED			DISAPPROVED					OTHER		PUMP--
		NEW B	REP C	ALTR D	STD E	ALT F	S.F. G	NO. H	IST INSP I	REIN J	NO. K	CORR REQ L	I+ INSP M	ALT SYS N	N RY O	VIOL P	FL-UP Q	R
January	65	34	24	7	43	9	13	28	11	17	37	29	15	9	5	0	0	-
February	79	45	30	3	46	7	25	30	11	19	48	30	12	12	8	7	5	-
March	60	38	21	2	35	10	14	26	15	11	33	24	10	11	4	6	3	-
April	95	63	26	8	79	5	9	51	27	19	44	33	15	3	10	0	3	-
May	102	62	36	4	77	15	10	52	29	23	50	39	14	10	13	0	2	-
June*	152	104	33	14	104	31	17	69	36	33	84	58	22	16	25	0	5	20
July*	84	57	23	4	60	15	9	48	25	23	36	22	6	9	8	1	2	17
August	156	113	40	3	80	39	38	75	29	46	81	43	24	34	18	13	10	48
September	176	126	45	5	97	34	44	73	37	36	103	57	18	45	25	12	7	47
October	171	119	44	8	100	29	43	72	30	42	98	69	34	39	19	11	8	44
November	119	73	36	10	58	21	40	60	25	35	59	33	17	24	12	8	5	38
December	56	29	24	3	36	11	9	32	18	14	23	12	8	10	4	3	3	11
TOTAL	1315	863	382	71	815	226	271	616	293	318	696	449	195	222	151	61	53	225

- Began count on June 16, 79 insp included

\* Data not collected July 1-12, June 30

TABLE 1 KEY

<u>Column</u>	<u>Description</u>
A	The total number of inspection requests for the given month.
B - G	The type of system inspected. Column B is systems for new construction; C is all repair work; D is alteration permits; E indicates the number of inspections that involved standard construction; F indicates the inspections involving all alternative systems except sand filter; and G indicates sand filter inspections.
H	Jobs that were approved.
I	Jobs approved with only one inspection.
J	Jobs approved after reinspection(s). This includes systems that normally may require multiple inspections.
K	Jobs not approved for any reason.
L	Jobs that were not approved due to material or physical defect.
M	Jobs where more than one inspection was necessary to repair defects. Generally, these were problem systems.
N	Number of systems not approved due to the need for multiple inspections.
O	Jobs not ready at the time of the requested inspection.
P	Repair inspections that were the result of Community Environment violations cases.
Q	Follow-up inspections in permits due to expire.
R	Number of inspections on systems that required a pump.



COPY

TO: Michael Cliburn  
FROM: Dick Polson  
DATE: January 21, 1988  
SUBJECT: Changes in the Fee Schedule for the On-Site Sewage Disposal Program

In a previous memo of December 28, I outlined what I felt were reasonable expenses and revenue projections for the Soils Section. These estimates were based on real data provided by the Finance Department. You have asked that I redo the expenses portion of the ledger based upon the 1987-1988 budget. Table 1 outlines total expenses using those budget projections.

Some explanation as to the numbers in Table 1 may be appropriate. For each staff member involved in the on-site program, a factor equivalent to the percentage of time they spend in the program was assigned. The factor was multiplied by their salary in order to determine the net cost of the program of that person. The total personal services, therefore, is an estimate of the total cost of personal services for all persons involved in the program. This figure is approximately 16.9 percent of the total budget amount for personal services. The rest of the estimate of expenses for the Soils Section was based upon that percentage or on taking a flat 25 percent of all expenses and attributing them to soils. The use of the 25 percent number was based upon your cost projections for the Electrical Section. Total expenses, therefore, range from \$322,000 to \$376,000, depending upon which percentage figure you care to use. This number is significantly higher than the \$227,000 estimate in the previous report. Current revenues of \$116,000 per year would only cover 30 to 36 percent of the total expenses of the soils program. Under the proposed amended fee schedule, if fees are raised to levels I have proposed, total revenue will still only provide 41 to 49 percent of the revenue needed to pay all expenses. Thus, I feel we find ourselves in the horns of a dilemma.

Under the proposal submitted to the Department of Environmental Quality, it would be impossible for us to raise fees to a level that would completely self-support this program. Further, I don't believe that it would be politically prudent to raise fees to such a level as to provide that kind of income, since fees

Michael Cliburn  
January 21, 1988  
Page 2

would have to be at least doubled over the projected increases. I am also troubled with using this kind of an accounting system, since real expenses seem to be more in line with my previous calculations. It would appear to be politically impossible to raise fees to a level that would support the program completely. Even those counties that have higher fee schedules than currently allowed under DEQ rules still do not have fees that are anywhere near what it would take to make our program self-supporting.

Therefore, it is my view that we are permanently married to the fact that the on-site program cannot raise its fees high enough to cover all costs, given our current levels of service. I do not feel that a reduction in staffing or levels of service in order to make costs match revenues is appropriate either. This raises an issue that will have to be considered for the long term. Since the State of Oregon intends to ensure that funds paid in building permit fees are used in conjunction with building only, we faced with either obtaining general fund support for the program or obtaining "permission" from the Building Codes Agency to allow us to continue to finance the program as we have in the past. I feel the latter is more appropriate, particularly if we show that we are making every effort to raise as much money as possible through fees. With that in mind, also find attached a letter I hope to send to the Department of Environmental Quality concerning their fee schedule. I feel additional money can be raised through re-inspection fees and through additional charges for pump systems. These charges should be made part of the regulations statewide. If the State chooses not to adopt this program, I am inclined to believe perhaps we should develop our own fee schedule including these fees. I estimate that these additional fees will generate approximately \$13,000 in revenue beyond the projections in my previous memo. Some discussion of this issue prior to sending the letter to the DEQ may be appropriate.

I would appreciate it if you would review this matter as soon as possible, since comments concerning the fee schedule must be in to the DEQ no later than January 29. Comments and suggestions would certainly be appreciated.

RICHARD L. POLSON - Chief Soils Scientist  
Building Services

/sah

Table 1: Soils Section Expenses as Estimated  
from the 1987-88 Budget

I. Staffing Levels (Personal Services)

<u>Staff Member</u>	<u>Factor</u>	<u>Salary/Benefits</u>	<u>Total</u>
Dan Bush	1.0	43,433	\$ 43,433
Lee Grimes	1.0	43,433	43,433
Wes Greenwood	1.0	23,760	23,760
Dick Polson	0.75	47,991	35,993
Fron Huffman	0.25	33,435	8,359
Pat Barth	0.50	27,159	13,580
Michael Cliburn	0.25	62,903	15,726
Kim Nelson	0.10	23,311	2,331
Cheri Greger	0.20	20,903	2,090
Total Personal Services			\$188,705
II. Materials and Services			
16.9 percent of 428,914		=	81,612
25 percent of 428,914		=	120,729
III Capital Outlay			
Office Equipment/Computer Update		17,500	
Office Furniture			
16.0 percent of 3,370		569	
25 percent of 3,370		843	
Vehicles - one pickup		3,166	
\$9,500 prorated over three year			
Total		=	21,235
		=	21,509
IV. Contingency Funds			
16.9 percent of 183,623		=	31,032
25 percent of 183,623		=	45,906
V. Total Expense			
A. 25 percent of II, III and IV		=	\$376,849
B. 16.9 percent of II, III and IV		=	\$322,584



# CLACKAMAS COUNTY

Department of Transportation & Development

## MEMORANDUM

WINSTON KURTH  
EXECUTIVE DIRECTOR

RICHARD DOPP  
DIRECTOR  
OPERATIONS & ADMINISTRATION

TOM VANDERZANDEN  
DIRECTOR  
PLANNING & DEVELOPMENT

TO: Michael Cliburn - Building Official

FROM: Dick Polson *DP*

DATE: December 28, 1987

SUBJECT: Changes in the Fee Schedule for On-Site Sewage Disposal Program

The Department of Environmental Quality has requested authorization to conduct hearings on proposed increases in the fees for the on-site sewage disposal program (see memo attached). Given our own deficits in this area, I have made an analysis of this proposal. I begin this analysis with a look at where our money is spent, followed by a look at current and projected revenue.

### EXPENSES

(from July 13, 1987 report for fiscal year 86-87)

JOB CODE AA-3201

Public Service	\$ 31,184.81
Meetings	3,040.39
Court Preparation or Appearance	430.88
Administrative Overhead	37,103.58
Vacation	10,289.87
Sick Leave	3,952.48
Jury Duty	1,589.35
Overhead	12,331.61
TOTAL	<u>\$ 99,922.97</u>

Michael Cliburn  
December 28, 1987  
Page 2

JOB CODE 255 - Soil Feasibility

DS-1	\$ 754.27	
DS-5	98.66	
DS-6	31,652.20	
DS-7	6,170.52	
TOTAL	<u>\$38,675.65</u>	+ 92.78 (AA3201) = <u>\$38,768.43</u>

JOB CODE 256 - Existing System Review

DS-1	\$22,099.42	
DS-2	55.93	
DS-3	107.45	
DS-5	111.85	
DS-6	201.05	
TOTAL	<u>\$22,575.70</u>	

JOB CODE 257 - System Inspections (Construction)

DS-1	\$31,817.04	
DS-3	2,008.52	
DS-5	145.26	
DS-6	55.93	
DS-8	11,590.95	
	1,768.29	
TOTAL	<u>\$47,385.99</u>	+ 1,892.93 (AA3201) = <u>\$49,278.92</u>

JOB CODE 283 - Code Compliance

AA-3201	\$ 45.32	
DS-1	15,044.19	
DS-2	294.91	
DS-3	732.52	
DS-5	405.73	
TOTAL	<u>\$16,522.67</u>	

GRAND TOTAL EXPENSES \$227,068.69

The above expense data is presumed complete for the fiscal year noted. In reviewing my quarterly reports for the Department of Environmental Quality, I note expense levels approximately 4

Michael Cliburn  
December 28, 1987  
Page 3

percent higher (\$235,800). This discrepancy may be due to the different methods used in accounting and either figure could be a reasonable cost projection.

#### REVENUE

Based on data for the calendar year 1987, total revenue should be approximately \$116,000. Total revenue for the fiscal year 86-87 was \$115,000. Table 1 plots the level of activity for calendar year 1987 and the revenue generated. Table 2 compares revenue to expenses, using Table 1 and the data from fiscal year 86-87. The data may lack some precision due to the slightly different time frames, but since expenses and revenue have been steady for the past 18 months, I have no reason to doubt the accuracy of the data. In calculating the overall cost of any function, I had to factor in a percentage of the overhead costs. I chose to allocate the overhead on a straight percentage basis, using the percentage of the overall revenue generated as a guide. Other methods could be used but this appears both a simple and realistic distribution technique.

#### PROPOSED CHANGES

Table 3 outlines what I feel to be reasonable changes in our current schedule as well as overall revenue projections. These fee increases will increase the percentage of expenses paid by revenue from the current 50 percent level to approximately the 69 percent level. You will notice that I have not increased all fees to the maximum allowable amount requested by the DEQ. I believe that in most cases such increases are not wise. The fees generated by a full-scale increase would not generate significant amounts of income, so the need for such increases seems unconvincing. Data show that the revenue/cost ratio for sand filters and standard systems would be about the same under the proposed schedule. Thus, each applicant ought to be paying his proportionate share of program costs. Finally, the high cost of some proposed septic permit fees seems disproportionate, when looking at the overall fees for a building permit. Therefore, I feel that public relations ought to play a role here in keeping fees at appropriate levels.

Not noted in any of these discussions is a fee increase for Soil Investigations. I feel fees should be increased here so revenue generated pays fees at least to the same proportion as the soil feasibility program. The fees for this program ought to be raised 30 percent or more.

Michael Cliburn  
December 28, 1987  
Page 4

#### CONCLUSIONS

Your opinion on these increases is solicited. We appear to have two choices. The first choice is to take action similar to that outlined above. The second is to escalate fees even further than those proposed by the DEQ in order to cover all expenses. Such an increase, it seems to me, does not appear to be politically palatable and I would recommend against it. Thus, the former option appears to be the most reasonable one. Please feel free to study the numbers. It would be wise to have our course of action ready for Board of County Commissioners' action as soon as possible. The DEQ proposal should be law within the next three to four months. I will provide additional data as I have it.

RICHARD L. POLSON - Chief Soils Scientist  
Building Services

/sah

Table 1: Activity, Fees and Current Revenue from On-Site Sewage Disposal Program Functions for Calendar Year 1987 (as of December 27, 1987)

	Number of Permits	Current Fee	Revenue
<u>SEPTIC TANK PERMITS</u>			
New Construction			
Standard System	365	60	21,900
Capping Fill	21	120	2,520
Sand Filter	40	150	6,000
Tile Dewatering	8	120	960
Steep Slope	2	60	120
Seepage Trench	4	60	240
Pressurized Distribution	6	120	720
Holding Tank	2	120	240
Repairs (all system types)	168	35	5,880
Alterations	40	60	2,400
Subtotal			40,980
<u>EXISTING DISPOSAL SYSTEM REVIEWS</u>			
	214	60	12,840
<u>SOIL FEASIBILITY STUDIES</u>			
	378	150	56,700
<u>SOIL INVESTIGATIONS</u>			
	20	variable	5,497
<u>PUMPER TRUCK INSPECTIONS</u>			
	16	25	400
<u>Grand Total</u>			<u>\$116,017</u>



**Table 2: Revenue and Expenses for the On-Site Sewage Disposal Program: A Percentage Comparison.**

	<u>Revenue</u> <u>1987</u>	<u>*Expenses</u> <u>F.Y. 86-87</u>	<u>Revenue As</u> <u>% of Expenses</u>
Septic Tank Permits	40,980	84,574	48.4%
Existing System Reviews	12,840	33,634	38.2%
Soil Feasibility Studies	56,700	81,432	69.6%
Pumper Truck Inspections	400	344	116%

\* Not included in this figure is \$16,522 in expenses associated with the Community Environment Department.

Table 3: Proposed Changes in On-Site Sewage Disposal Fees as per DEQ Memo of December 11, 1987. (Revenue projection based on 1987 data.)

	Current Fee	Proposed Fee	Current Revenue	Projected Revenue
<b>SEPTIC TANK PERMITS</b>				
<u>New Construction</u>				
Standard System	60	100	21,900	36,500
Capping Fill	120	175	2,520	3,675
Saprolite	60	100	--	--
Holding Tank	120	160	240	320
Pressurized Distribution	120	160	720	960
Redundant	60	100	--	--
Sand Filter	150	220	6,000	8,800
Seepage Trench	60	100	240	400
Steep Slope	60	100	120	200
Tile Dewatering	120	160	960	1,280
<u>Repairs</u>	35	75	5,880	12,600
<u>Alterations</u>	60	100	2,400	4,000
<b>EXISTING DISPOSAL SYSTEM</b>				
REVIEWS	60	100	12,840	21,400
SOIL FEASIBILITY	150	160	56,700	60,480
SOIL INVESTIGATIONS	variable	vrbl	5,497	6,000
PUMPER TRUCK INSPECTIONS	25	50	400	800
<b><u>TOTAL REVENUE</u></b>			<b><u>116,017</u></b>	<b><u>157,415</u></b>

OREGON ADMINISTRATIVE RULES FOR  
ON-SITE SEWAGE DISPOSAL  
CHAPTER 340, DIVISION 71

**Note:** Bracketed [ ] material is proposed to be deleted.  
Underlined \_\_\_\_\_ material is proposed to be inserted.

**340-71-100 DEFINITIONS.**

- (93) "Repair" means installation of all portions of a system necessary to eliminate a public health hazard or pollution of public waters created by a failing system. Major repair is defined as the replacement of the soil absorption system. Minor repair is defined as the replacement of a septic tank, broken pipe, or any part of the on-site sewage disposal system except the soil absorption system.

Note: Bracketed [ ] material is proposed to be deleted.  
 Underlined        material is proposed to be inserted.

340-71-140 FEES-GENERAL.

- (1) Except as provided in section (5) of this rule, the following nonrefundable fees are required to accompany applications for site evaluations, permits, licenses and services provided by the Department.

ON-SITE SEWAGE DISPOSAL SYSTEMS	MAXIMUM FEE
(a) New Site Evaluation:	
(A) Single Family Dwelling:	
(i) First Lot.....	[\$150] <u>\$160</u>
(ii) Each Additional Lot Evaluated During Initial Visit .....	\$130
(B) Commercial Facility System:	
(i) For First One Thousand (1000) Gallons Projected Daily Sewage Flow .....	[\$150] <u>\$160</u>
(ii) Plus For Each Five Hundred (500) Gallons or Part Thereof Above One Thousand (1000) Gallons, for Projected Daily Sewage Flows up to [Ten Thousand (10,000)] <u>Five Thousand (5,000)</u> Gallons.....	\$ 50
[(iii) Plus For Each One Thousand (1000) Gallons or Part Thereof Above Ten Thousand (10,000) Gallons.....	\$ 20]
(C) Site Evaluation Report Review .....	[\$ 60] <u>\$100</u>
(D) Fees for site evaluation applications made to an agreement county shall be in accordance with that county's fee schedule.	
(E) Each fee paid for a site evaluation report entitles the applicant to as many site inspections on a single parcel or lot as are necessary to determine site suitability for a single system. The applicant may request additional site inspections within ninety (90) days of the initial site evaluation, at no extra cost.	

(F) Separate fees shall be required if site inspections are to determine site suitability for more than one (1) system on a single parcel of land.

(b) Construction-Installation Permit:

(A) For First One Thousand (1000) Gallons Projected Daily Sewage Flow:

(i) Standard On-Site System ..... [\$120] \$160

(ii) Alternative System:

(I) Aerobic System.....	[\$120]	<u>\$160</u>
(II) Capping Fill .....	[\$240]	<u>\$275</u>
(III) Cesspool.....	[\$120]	<u>\$160</u>
(IV) Disposal Trenches in Saprolite...	[\$120]	<u>\$160</u>
(V) Evapotranspiration-Absorption....	[\$120]	<u>\$160</u>
(VI) Gray Water Waste Disposal Sump...	[\$ 60]	<u>\$ 80</u>
(VII) Holding Tank .....	[\$120]	<u>\$160</u>
(VIII) Pressure Distribution .....	[\$120]	<u>\$160</u>
(IX) Redundant .....	[\$120]	<u>\$160</u>
(X) Sand Filter .....	[\$280]	<u>\$295</u>
(XI) Seepage Pit .....	[\$120]	<u>\$160</u>
(XII) Seepage Trench .....	[\$120]	<u>\$160</u>
(XIII) Steep Slope .....	[\$120]	<u>\$160</u>
(XIV) Tile Dewatering .....	[\$120]	<u>\$160</u>

(iii) The permit fee required for standard, cesspool, disposal trenches in saprolite, seepage pit, steep slope and seepage trench systems may be reduced to one hundred five dollars [(\$60)] \$105 providing the permit application is submitted to the Agent within six (6) months of the site evaluation report date, the system will serve a single family dwelling, and a site visit is not required before issuance of the permit.

(B) For systems with projected daily sewage flows greater than one thousand (1000) gallons, the Construction-Installation permit fee shall be equal to the fee required in OAR 340-71-140(1)(b)(A) plus \$10 for each five hundred (500) gallons or part thereof above one thousand (1000) gallons.

NOTE: Fees for construction permits for systems with projected daily sewage flows greater than five thousand (5,000) gallons shall be in accordance with the fee schedule for WPCF permits.

(C) Commercial Facility System, Plan Review:

- (i) For a system with a projected daily sewage flow of less than six hundred (600) gallons, the cost of plan review is included in the permit application fee.
- (ii) For a system with a projected daily sewage flow of six hundred (600) gallons, but not more than one thousand (1000) gallons projected daily sewage flow ..... \$ 60
- (iii) Plus for each five hundred (500) gallons or part thereof above one thousand (1000) gallons, to a maximum sewage flow limit of five thousand (5000) gallons per day .... \$ 15
- (iv) Plan review for systems with projected sewage flows greater than five thousand (5,000) gallons per day shall be pursuant to OAR 340, Division 52.

(D) Permit Renewal:

- (i) If Field Visit Required..... [\$ 60] \$100
- (ii) No Field Visit Required..... [\$ 10] \$ 55

NOTE: Renewal of a permit may be granted to the original permittee if an application for permit renewal is filed prior to the original permit expiration date. Refer to OAR 340-71-160(10).

(E) Alteration Permit ..... [\$ 95] 140

(F) Repair Permit:

- (i) Single Family Dwelling: [..... \$ 35]
  - Major ..... \$ 75
  - Minor ..... \$ 50
- (ii) Commercial Facility ... The appropriate fee identified in paragraphs (1)(b) (A) and (B) of this rule applies.

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- (G) Permit Denial Review ..... [\$ 60] \$100
- (c) Authorization Notice:
  - (A) If Field Visit Required ..... [\$ 60] \$100
  - (B) No Field Visit Required ..... [\$ 10] \$ 55
  - (C) Authorization Notice Denial Review ..... [\$ 60] \$100
- (d) Annual Evaluation of Alternative System  
(Where Required) ..... [\$ 60] \$100
- (e) Annual Evaluation of Large System (2501 to  
5000 GPD) ..... [\$ 60] \$100
- (f) Annual Evaluation of Temporary or Hardship  
Mobile Home..... \$ 60
- (g) Variance to On-Site System Rules ..... \$225

NOTE: The variance application fee may be waived if the applicant meets the requirements of OAR 340-71-415(5).

- (h) Rural Area Variance to Standard Subsurface Rules:
  - (A) Site Evaluation ..... [\$150] \$160

NOTE: In the event there is on file a site evaluation report for that parcel that is less than ninety (90) days old, the site evaluation fee shall be waived.

- (B) Construction-Installation Permit....The appropriate fee identified in subsection (1)(b) of this rule applies.
- (i) Sewage Disposal Service:
  - (A) Annual Business License ..... \$150  
  
EXCEPTION: The application fee for a license valid during the period July 1, 1983 through June 30, 1984 shall be \$100.
  - (B) Transfer of or Amendments to License ..... \$ 75
  - (C) Reinstatement of Suspended License ..... \$100

60

- (D) Pumper Truck Inspection, [Each] First Vehicle  
Each [Visit] Inspection..... [\$ 25] [\$95] \$35  
Each Additional Vehicle, Each [Visit].Inspection. [\$ 50] \$25
- (j) Experimental Systems:  
 Permit ..... \$100
- (k) Existing System Evaluation Report ..... [\$ 60] \$100

NOTE: The fee shall not be charged for an evaluation report on any proposed repair, alteration or extension of an existing system.

- (2) Contract County Fee Schedules. Pursuant to ORS 454.745(4), fee schedules which exceed maximum fees in ORS 454.745(1), and Section (1) of this rule, are established for Contract Counties as follows:
  - (a) Multnomah County: See OAR 340-72-070.
  - (b) Jackson County: See OAR 340-72-080.
  - (c) Linn County: See OAR 340-72-090.
- (3) Contract County Fee Schedules, General:
  - (a) Each county having an agreement with the Department under ORS 454.725 shall adopt a fee schedule for services rendered and permits and licenses to be issued.
  - (b) A copy of the fee schedule and any subsequent amendments to the schedule shall be forwarded to the Department.
  - (c) Fees shall not:
    - (A) Exceed actual costs for efficiently conducted services; or
    - (B) Exceed the maximum established in Section (1) of this rule, unless approved by the Commission pursuant to ORS 454.745(4).
- (4) Surcharge. In order to offset a portion of the administrative costs of the statewide on-site sewage disposal program, a surcharge for each activity, as set forth in the following schedule, shall be levied by the Department and by each Agreement County. Proceeds from surcharges collected by the Department and Agreement Counties shall be accounted for separately. Each Agreement County shall forward the proceeds to the Department as

66



negotiated in the memorandum of agreement (contract) between the county and the Department.

Activity	Surcharge
(a) Site evaluation, for each site examined, based on a projected flow of:	
1,000 gallons or less .....	\$ 15
1,001 gallons to 2,000 gallons .....	\$ 30
2,001 gallons to 3,000 gallons .....	\$ 45
3,001 gallons to 4,000 gallons .....	\$ 60
4,001 gallons or more .....	\$ 75
(b) Construction-Installation Permit .....	\$ 5
[EXCEPTION: Repair permits are not subject to a surcharge.]	
<u>(c) Repair Permit .....</u>	<u>\$ 5</u>
<u>(d) [(c)] Alteration Permit .....</u>	<u>\$ 5</u>
<u>(e) [(d)] Authorization Notice .....</u>	<u>\$ 5</u>
(5) Refunds. The Agent may refund a fee accompanying an application if the applicant withdraws the application before the Agent has done any field work or other substantial review of the application.	



## Environmental Quality Commission

811 SW SIXTH AVENUE, PORTLAND, OR 97204 PHONE (503) 229-5696

### MEMORANDUM

To: Environmental Quality Commission  
From: Director  
Subject: Agenda Item No. J, March 11, 1988, EQC Meeting

Request for Approval of Preliminary Plan, Specifications and Schedule for Sanitary Sewers to Serve a Health Hazard Annexation Area Known as Philomath Boulevard Area, Contiguous to City of Corvallis, Benton County

### Background

The Administrator of the State Health Division on February 4, 1988, issued a certified Order that an area contiguous to the City of Corvallis is a health hazard area because of failing septic systems. The Order was issued pursuant to the Health Hazard Abatement Law, ORS 222.840 to 222.915. The area requiring annexation is the Philomath Boulevard area. A copy of the annexation order was sent to the City of Corvallis. (Attachment A) Chairman Petersen was provided a copy at this same time.

The designated health hazard area is phase 1 of a two phase health hazard annexation process proposed for the area. It is within an old urban growth boundary. The second phase of the Philomath Boulevard area, westerly of the territory covered in this order, is yet to come before us. It will be within a newly established urban growth boundary.

The health hazard area was surveyed during 1983, 1985 and 1986. Twenty-seven properties were found to have inadequate sewage disposal. Sewage was found on the ground, backing up in plumbing, flowing overland into roadside ditches, across a bike path in the area and onto property of others.

The Order requires the city to make a study and plan for alleviation of the health danger. Preliminary plans and specifications, and a time schedule resulting from their study are to be submitted to the Environmental Quality Commission. This is to be complete within 90 days of receipt of a certified copy of the Division's findings by the City.

By letter received February 10, 1988, the City of Corvallis submitted to the Department a preliminary plan, specifications, and a time schedule for construction of sewers proposed to serve the annexation area. (Attachment B)

The Environmental Quality Commission has 60 days from the time of receipt of preliminary plans and other documents to determine them either adequate or inadequate to remove or alleviate the dangerous conditions and to certify same to the city.

Upon receipt of the EQC certification, the City must adopt an ordinance in accordance with ORS 222.900 which includes annexation of the territory. The City is then required to cause the necessary facilities to be constructed.

#### Evaluation

The time schedule proposed by the City calls for annexation of the territory immediately following certification of preliminary plans, specifications and time schedule by the EQC. All construction of sewer mains would be complete within about one year. All service connections would be made to the sewer system within 90 days following completion of mainline sewers. There is some likelihood the whole project will be complete before November 1988. The schedule is not contingent upon acquiring a federal grant or loan. Direct assessment of benefitting properties is planned.

The preliminary plan requires construction of conventional gravity collections sewers within the annexation area. These would connect at four locations to existing eight inch sewers or standard manholes owned by the City within Country Club sewer service area. Treatment of collected sewage will be at the City's Wastewater Reclamation Plant.

Existing interceptor sewers, pump stations, and the wastewater plant to be relied upon to treat and dispose of sewage have adequate capacity to accommodate the increase in flow from the annexation area.

Staff concludes from the Health Division findings and conclusions that the health hazard in the area is a result of sewage at or on the surface of the ground resulting from disposal systems constructed within seasonally saturated soils. Installation of a sewage collection system will prevent the discharge of inadequately treated sewage onto the ground surface, into various ditches, and across property of others. Thus, staff conclude that installation of sewers in the area will alleviate the health hazard.

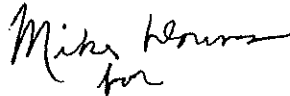
#### Summation

1. Under provisions of ORS 222.840 to 222.915, the State Health Division issued and adopted an Order with findings and conclusions, and certified a copy to the City of Corvallis.
2. The City has submitted a preliminary plan and specifications, together with a time schedule to the DEQ for review.

3. ORS 222.898 (1) requires the Commission to make a determination of the adequacy of the preliminary plan and other documents submitted by the City within 60 days of receipt.
4. ORS 222.898 (2) requires the Commission to certify to the City its approval if it considers the proposed facilities and time schedule adequate to remove or alleviate the dangerous conditions.
5. The gravity sewer extensions proposed by the plan will alleviate the conditions dangerous to public health within the area to be annexed. The proposed time schedule for completion of all work within fifteen months from now is adequate.

Director's Recommendation

Based upon the findings in the summation, the Director recommends that the Commission approve the proposal of the City of Corvallis and certify approval to the City. (Attachment C)

  
Fred Hansen

- Attachments
- A. Health Division Findings of Fact, Ultimate Findings of Fact, Conclusions of Law and Order.
  - B. City Letter of February 11, 1988, with attachments including time schedule. (Note: One copy of the preliminary plan and specifications will be at the EQC meeting. The plan is too large to readily reproduce and the specifications are lengthy.)
  - C. Environmental Quality Commission Certificate of Approval of Plans and Specifications and Time Schedule.

James L. Van Domelen  
WN40  
229-5310  
February 17, 1988



Department of Human Resources  
**HEALTH DIVISION**

1400 S.W. 5th AVENUE, PORTLAND, OREGON 97201 PHONE 229-6310

February 4, 1988

CERTIFIED MAIL #P 455853025  
RETURN RECEIPT REQUESTED

ATTACHMENT A  
RECEIVED

FEB 08 1988

City Community Planning Div.

Tom Coffee, Acting City Manager  
City of Corvallis  
P.O. Box 1083  
Corvallis, OR 97339

Dear Mr. Coffee:

RE: IN THE MATTER OF THE PROPOSED ANNEXATION OF A CERTAIN TERRITORY  
KNOWN AS THE PHILOMATH BOULEVARD AREA TO THE CITY OF CORVALLIS,  
BENTON COUNTY, OREGON, PURSUANT TO THE PROVISIONS OF ORS 222.840  
TO 222.915 DUE TO CONDITIONS CAUSING A DANGER TO PUBLIC HEALTH.

Please find enclosed a certified copy of Findings and Final Order in  
the above stated matter.

I refer you to ORS 222.897 through 222.900 which direct procedures  
following these findings. If you have questions in this regard,  
please contact me at 229-6310.

Sincerely,

Ronald A. Hall, R.S., Manager  
Health Hazard Studies Program  
Office of Environment and Health Systems

RAH:sw

cc: James Petersen, EQC CERTIFIED MAIL #P480147563  
David St. Louis, DEQ, Salem  
Tom Bispham, DEQ, Portland  
Fred Hansen, DEQ, Portland  
Jim Walton  
Linda Donaldson, City of Corvallis  
Michael Neuman, City of Corvallis  
Jose Ma Basa  
Leigh Zeigler, Benton Co. Health Dept  
Benton Co. Commissioners  
Len Pearlman, A.G.

RECEIVED  
FEB 10 1988

Water Quality Division  
Dept. of Environmental Quality

AN EQUAL OPPORTUNITY EMPLOYER

Mailing Address: P.O. Box 231, Portland, Oregon 97207  
EMERGENCY PHONE (503) 229-5599

TTY (503) 229-6974

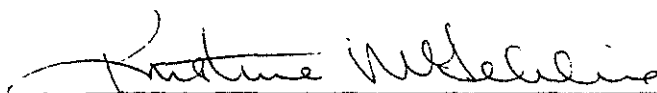
A-1

CERTIFICATE

I, Kristine Gebbie, Assistant Director for Health, Department of Human Resources, Administrator of the State Health Division and legal custodian of the records and files of said Division, DO HEREBY CERTIFY:

That the attached copy of the ASSISTANT DIRECTOR'S FINDINGS OF FACT, ULTIMATE FINDINGS OF FACT, CONCLUSIONS OF LAW AND ORDER, in the matter of the Annexation of Certain Territory commonly known as the Philomath Boulevard area to the City of Corvallis, has been compared by me with the original thereof and said copy is a true, full and correct transcript from and of the whole of said original as the same appears in the records of the State Health Division in my custody.

In Testimony Whereof, I have hereunto  
set my hand this 4 day of  
February, 1988.



Kristine M. Gebbie  
Assistant Director, Human Resources  
Administration, State Health Division

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BEFORE THE STATE HEALTH DIVISION  
OF THE DEPARTMENT OF HUMAN RESOURCES  
OF THE STATE OF OREGON

In the Matter of the Proposed )  
Annexation of a Certain )  
Territory known as the )  
Philomath Boulevard area to ) ASSISTANT DIRECTOR'S  
the City of Corvallis, Benton ) FINDING OF FACT, ULTIMATE  
County, Oregon, pursuant to ) FINDINGS OF FACT, CONCLUSIONS  
the Provisions of ORS 222.840 ) OF LAW AND ORDER  
to 222.915 Due to Conditions )  
Causing a Danger to Public )  
Health. )

A hearing on the question of the existence of a danger to public health in the above-entitled matter was held on April 2, 1987, at the Auditorium Room of the Benton County Fairgrounds, 110 S.W. 53rd St., Corvallis, Oregon, a place near the proposed area to be annexed, before Samuel J. Nicholls, the hearings officer appointed by the Health Division. The hearings officer considered all the evidence presented by the Division and affected persons and made his FINDINGS OF FACT, CONCLUSIONS OF LAW and RECOMMENDATIONS. Opportunity for arguments and for petitioning for exclusion of property was thereafter given by publication of notice as prescribed by rules of the Division. Three timely petitions for exclusion were received and a hearing on these petitions was held on October 21, 1987 as provided by statute, at the Central Park Municipal Building, Municipal Courtroom, 760 S.W. Madison, Corvallis, Oregon, a place near the proposed area to be annexed, before Samuel J. Nicholls, the hearings officer appointed by the Health Division. An additional

1 petition for exclusion was received, but not timely filed.  
2 Following the hearing, the hearings officer issued his FINDINGS  
3 OF FACT, CONCLUSION OF LAW and RECOMMENDATION. Thereafter, the  
4 City of Corvallis filed its EXCEPTIONS OF CITY OF CORVALLIS TO  
5 FINDINGS, CONCLUSION, AND RECOMMENDATION OF HEARINGS OFFICER.  
6 Thereafter, petitioners Packer, Witham and Oliver filed an ANSWER  
7 TO CITY'S EXCEPTIONS, but it was not received by the hearings  
8 officer until he had issued his SUPPLEMENTAL OPINION OF HEARINGS  
9 OFFICER in response to the City's Exceptions. The Assistant  
10 Director having considered both findings of fact, conclusion of  
11 law and recommendations of the appointed hearings officer, the  
12 Exceptions, and the Supplemental Opinion, now makes the following  
13 disposition of this matter.

14 FINDINGS OF FACT

15 1. The Findings of Fact, Ultimate Findings of Fact,  
16 Conclusion of Law and Recommendations of the hearings officer  
17 submitted after the original hearing on April 2, 1987 are hereby  
18 adopted and approved; they are attached hereto as Exhibit A and  
19 are by this reference incorporated herein.

20 2. The Findings of Fact, Conclusion of Law and  
21 Recommendations of the hearings officer submitted after the  
22 exclusion hearing on October 21, 1987 are hereby adopted and  
23 approved; they are attached hereto as Exhibit B and are by this  
24 reference incorporated herein.

25 ///

26 ///



1           3. The supplemental opinion of the hearings officer  
2 submitted after the hearing on October 21, 1987 is hereby adopted  
3 and approved; it is attached hereto as Exhibit C and are by this  
4 reference incorporated herein.

5                                   ULTIMATE FINDINGS OF FACT

6           1. The improper and inadequate installations for the  
7 disposal or treatment of sewage or other contaminated or  
8 putrifying wastes, as described in paragraph 1 above, constitute  
9 conditions which are conducive to the propagation of communicable  
10 or contagious disease-producing organisms and which present a  
11 reasonably clear possibility that the public generally is being  
12 exposed to disease-caused physical suffering or illness.

13           2. Such conditions do not exist within the following  
14 parcels proposed for exclusion, and such territory further  
15 qualifies for exclusion from the boundary proposed for annexation  
16 in the county resolution:

17           a. Tax lot 12-5-8AB-1000, of Charles W. Oliver and Marjorie  
18 R. Oliver;

19           b. Tax lot 12-5-8AB-400, of Ruth Witham;

20           c. Tax lot 12-5-8AB-300, of Ruth Witham; and

21           d. Tax lot 12-5-8AB-100, of Harold Packer, Phyllis Packer,  
22 Gordon Packer and Nancy Packer.

23           3. The area remaining for annexation after excluding the  
24 parcels described in paragraph 2 above, which remaining area is  
25 legally described in Exhibit D which is attached hereto and by  
26 this reference incorporated herein, is contiguous to the City of

1 Corvallis, Oregon and is within the urban growth of the city:  
2 the remainder of that certain territory known as the Philomath  
3 Boulevard area.

4 CONCLUSIONS OF LAW

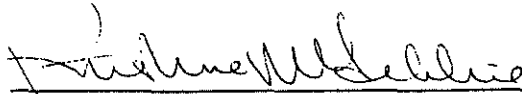
5 1. Under ORS 222.880(3) and (4) and OAR 333-12-045, the  
6 parcels proposed for exclusion and described in Ultimate Finding  
7 of Fact #2 above, would be appropriately excluded from the area  
8 proposed for annexation.

9 2. A danger to public health as defined in ORS 222.850(4),  
10 as provided in ORS 222.850 to 222.915, exists within the  
11 territory described in ULTIMATE FINDINGS OF FACT #3 above. Such  
12 area is otherwise eligible for annexation to the City of  
13 Corvallis, Oregon, in accordance with ORS 222.111 and is within  
14 the urban growth boundary of the City of Corvallis, Oregon.

15 ORDER

16 IT IS ORDERED that a certified copy of these findings and  
17 conclusions be filed with the City of Corvallis, Oregon, and with  
18 the Environmental Quality Commission; and that upon their receipt  
19 of such findings and conclusions, the City of Corvallis and the  
20 Commission proceed in accordance with ORS 222.897, 222.900, and  
21 this order to annex the territory described in Exhibit D.

22 DATED this 4 day of February, 1988.

23   
24 \_\_\_\_\_  
25 Kristine M. Gebbie  
26 Administrator  
State Health Division  
Department of Human Resources

1        NOTICE: You are entitled to judicial review of this order.  
2        Judicial review may be obtained by filing a petition for review  
3        within 60 days from the service of this order. Judicial review  
4        is pursuant to the provisions of ORS 183.482.,

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BEFORE THE STATE HEALTH DIVISION  
OF THE DEPARTMENT OF HUMAN RESOURCES  
OF THE STATE OF OREGON

In the Matter of the Proposed )  
Annexation of a Certain )  
Territory Commonly known as ) FINDINGS OF FACT,  
the Philomath Boulevard area ) ULTIMATE FINDING OF FACT,  
to the City of Corvallis, ) CONCLUSION OF LAW AND  
Benton County, Oregon, pursuant ) RECOMMENDATIONS  
to the Provisions of ORS 222.840 )  
to 222.915 Due to Conditions )  
Causing a Danger to Public )  
Health )

To: Kristine M. Gebbie  
Assistant Director, Human Resources  
Administrator, Health Division

This matter came for hearing on April 2, 1987, at the Auditorium Room of the Benton County Fairgrounds, 110 S.W. 53rd Street, Corvallis, Oregon, a place near the proposed area to be annexed. Samuel J. Nicholls served as the Hearings Officer. Leonard J. Pearlman, Assistant Attorney General, appeared as counsel for the Health Division. Members of the public attended in person. Evidence in favor of the proposed annexation was presented by the Health Division. Testimony in opposition to the proposed annexation was presented. The Hearings Officer, having considered all the evidence presented, and being fully advised, makes the following Findings of Fact, Ultimate Finding of Fact, Conclusion of Law, and Recommendations.

///  
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1 FINDINGS OF FACT

2 I.

3 By order of the Oregon State Health Division dated February  
4 27, 1987, a hearing was ordered in this matter for the following  
5 purpose: to determine whether a danger to public health exists  
6 due to conditions existing in the territory proposed to be  
7 annexed, described in a resolution of the Board of Commissioners  
8 of Benton County, acting as the Benton County Board of Health,  
9 dated December 17, 1986.

10 II.

11 Notice of said order and resolution was given by the Health  
12 Division by publication once each week for two successive weeks  
13 in the Corvallis Gazette-Times, a newspaper of general circu-  
14 lation within the City of Corvallis, Oregon, and the territory  
15 proposed to be annexed, and by posting copies of the order and  
16 resolution in each of four public places within the territory  
17 proposed to be annexed.

18 III.

19 There is no community collection system for sewage disposal  
20 and treatment within the area proposed to be annexed; all units  
21 depend upon individual sub-surface sewage disposal facilities,  
22 primarily septic tanks and drainfields.

23 IV.

24 There are two primary components to a septic tank and drain-  
25 field system. The first is the septic tank itself, which is a  
26 water-tight box which serves as a settling basin to settle out

1 solids. The second component is a drainfield, which is a series  
2 of underground pipes through which the sewage effluent is pumped  
3 into the ground.

4 V.

5 Treatment of raw sewage occurs in the soil of the drain-  
6 field, where micro-organisms, in the presence of oxygen, break  
7 down pathogenic or disease causing organisms which may be  
8 present in human sewage.

9 VI.

10 Properly constructed and functioning sub-surface disposal  
11 systems do not pump sewage effluent onto the ground surface.  
12 Sewage must be retained in the soil to be adequately treated  
13 bacteriologically and to be rendered non-septic. Sewage  
14 effluents rising or discharging onto the ground surface from a  
15 sub-surface sewage disposal facility are inadequately treated  
16 and essentially raw.

17 VII.

18 Limiting factors to the effective use of a sub-surface  
19 drainage system are the soil type of the drainfield and the  
20 level of the water table. Both factors affect the amount of  
21 oxygen in the soil, which is necessary for adequate bacterio-  
22 logical treatment of the effluent. Presence of excess water in  
23 the drainfield limits the amount of oxygen available to the  
24 microorganisms which break down the pathogenic organisms in the  
25 sewage and render them non-septic.

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VIII.

Non-treated sewage being discharged onto the ground may be detected by a very strong characteristic odor and appearance. In addition, non-treated sewage rising to the surface may be detected by finding standing water on the surface of a drainfield which does not appear on adjacent areas, especially when combined with a lush green growth of grass over the drainfield area.

IX.

One method used to detect an improperly functioning subsurface sewage disposal system is to introduce a fluorescent tracer dye into the toilet of a particular system, flush water through the system, and watch to see if the hydraulic action of the system carries that dye to the surface of the ground. If the dye appears on the ground at all, the system is not functioning properly. If the dye appears on the surface within a short period of time, virtually no treatment is being provided to the sewage discharged into that particular system.

X.

Pathogens, or disease-causing agents, are found in the fecal material of mammals. Microbiological testing for the presence of the following organisms is performed to investigate the presence of inadequately treated sewage: total coliform, fecal coliform, and fecal streptococcus organisms. These organisms are not themselves pathogens, but are indicators of the presence of fecal matter which may contain pathogens.





1           1.    On March 6, 1986, on tax lot 300 of tax map 12-5-8BA,  
2 also known as 1945 S.W. 66th Street, Corvallis, Oregon, a  
3 plastic pipe extending from the trailer on the property was  
4 discharging liquid with the characteristic odor and appearance  
5 of sewage onto the ground surface.

6           2.    On March 10, 1986, at 4:30 p.m., dye was introduced  
7 into the septic system on tax lot 302 of tax map 12-5-8BA, also  
8 known as 1955 S.W. 66th Street, Corvallis, Oregon. At 8:40 a.m.  
9 on the following day, the dye was observed in water standing on  
10 the ground surface. A water sample then taken from that area  
11 indicated the presence of 66,000 total coliform colonies per 100  
12 milliliters of fluid, 200 fecal coliform colonies per 100  
13 milliliters of fluid, and 16,000 fecal streptococcus colonies  
14 per 100 milliliters of fluid. A separate waste water system in  
15 that residence discharges waste water from the laundry facility  
16 directly onto the ground surface 60 feet east of the dwelling.

17           3.    On February 26, 1986, liquid with the characteristic  
18 odor and appearance of raw sewage was present in a roadside  
19 ditch adjacent to tax lot 301 of tax map 12-5-8BA, also known as  
20 1965 S.W. 66th Street, Corvallis, Oregon. On that day, dye was  
21 introduced into the septic system of the residence on that lot,  
22 and appeared in the ditch within two hours and fifteen minutes.  
23 A sample then taken of the ditch water indicated the presence of  
24 51,000 total coliform colonies per 100 milliliters of fluid, 400  
25 fecal coliform colonies per 100 milliliters of fluid, and less

26 ///

1 than 100 fecal streptococcus colonies per 100 milliliters of  
2 fluid.

3 4. On February 25, 1986, liquid with the characteristic  
4 odor and appearance of raw sewage was flowing onto the ground  
5 surface from a black plastic pipe downslope of the septic system  
6 serving the church on tax lot 100 of tax map 12-5-8BA, also  
7 known as 6225 S.W. Philomath Boulevard, Corvallis, Oregon. The  
8 liquid flowed across the ground surface and then across the  
9 property line to the north. A water sample taken from this area  
10 on March 19, 1986 indicated the presence of 80,909 total  
11 coliform colonies per 100 milliliters of fluid, 34,000 fecal  
12 coliform colonies per 100 milliliters of fluid, and 5,800 fecal  
13 streptococcus colonies per 100 milliliters of fluid.

14 5. On February 25, 1986, the drainfield area on tax lot  
15 300 of tax map 12-5-5DC, also known as 6075 S.W. Philomath  
16 Boulevard, Corvallis, Oregon, was completely saturated with  
17 water.

18 6. On February 25, 1986, on tax lot 600 of tax map  
19 12-5-5DC, also known as 5945 S.W. Philomath Boulevard,  
20 Corvallis, Oregon, surface water with the characteristic odor  
21 and appearance of raw sewage was standing on the ground surface  
22 on the northwest corner of the property, downslope from the  
23 dwelling located on that lot. On February 25, 1986, at 1:40  
24 p.m., dye was introduced into the septic system of that  
25 dwelling. The dye appeared in the standing surface water at  
26 10:30 a.m. on the following day. A water sample collected of

1 that surface water on February 25, 1986 indicated the presence  
2 of 1,360,000 total coliform colonies per 100 milliliters of  
3 fluid, 152,000 fecal coliform colonies per 100 milliliters of  
4 fluid, and 272,000 fecal streptococcus colonies per 100  
5 milliliters of fluid.

6 7. On February 25, 1986, liquid with the characteristic  
7 odor and appearance of raw sewage was standing in a depression  
8 twenty feet north and downslope from the residence located on  
9 tax lot 700 of tax map 12-5-5DC, also known as 5911 S.W.  
10 Philomath Boulevard, Corvallis, Oregon. Some of that liquid was  
11 flowing across the property line to the north. A sample of that  
12 liquid then taken indicated the presence of 9,091 total coliform  
13 colonies per 100 milliliters of fluid, 1,300 fecal coliform  
14 colonies per 100 milliliters of fluid, and 800 fecal  
15 streptococcus colonies per 100 milliliters of fluid.

16 8. On February 24, 1986, the soil of the drainfield  
17 serving the septic system on tax lot 1500 of tax map 12-5-5DD,  
18 also known as 5835 S.W. Philomath Boulevard, Corvallis, Oregon,  
19 was saturated with water.

20 9. On March 18, 1986, on tax lot 1400 of tax map 12-5-5DD,  
21 also known as 5765 S.W. Philomath Boulevard, Corvallis, Oregon,  
22 liquid with the characteristic odor and appearance of raw sewage  
23 was discharging from a pipe to a drainage ditch from a downslope  
24 of the dwelling on the property. Dye introduced into the septic  
25 system of the residence on that property on March 18, 1986, at  
26 10:00 a.m., was observed discharging from that pipe at 8:45 a.m.

1 on the following day. A water sample taken in the ditch on  
2 March 18, 1986 indicated the presence of 2,630,000 total  
3 coliform colonies per 100 milliliters of fluid, 482,000 fecal  
4 coliform colonies per 100 milliliters of fluid, and 393 fecal  
5 streptococcus colonies per 100 milliliters of fluid.

6 10. On February 24, 1986, a water sample was collected from  
7 a ditch located at the northern end of the drainfield serving  
8 tax lots 800 and 801 of tax map 12-5-5DD, also known as 5605  
9 S.W. Philomath Boulevard, Corvallis, Oregon. That sample  
10 indicated the presence of 46,000 total coliform colonies per 100  
11 milliliters of fluid, 2,000 fecal coliform colonies per 100  
12 milliliters of fluid, and 100 fecal streptococcus colonies per  
13 100 milliliters of fluid.

14 11. On March 5, 1986, liquid with the characteristic odor  
15 and appearance of raw sewage was present on the ground surface  
16 within twenty five feet of the northeast corner of the dwelling  
17 located on tax lot 700 of tax map 12-5-5DD, also known as 5565  
18 S.W. Philomath Boulevard, Corvallis, Oregon. A sample of this  
19 liquid taken on March 5, 1986 indicated total coliform confluent  
20 growth without sheen, 21,000 fecal coliform colonies per 100  
21 milliliters of fluid, and less than 100 fecal streptococcus  
22 colonies per 100 milliliters of fluid.

23 12. On December 6, 1983, dye was introduced into the septic  
24 system of Flapper's Restaurant and Tavern, located on tax lot  
25 1000 of tax map 12-5-8BA, also known as 6780 S.W. Philomath  
26 Boulevard, Corvallis, Oregon. On December 9, 1983, the dye

1 appeared in liquid with the characteristic odor and appearance  
2 of raw sewage on the ground surface near the septic tank. On  
3 December 14, 1983, a water sample was taken of liquid containing  
4 the dye in the parking lot of the business, and indicated the  
5 presence of more than 2,400 total coliform colonies per 100  
6 milliliters of fluid, more than 2,400 fecal coliform colonies  
7 per 100 milliliters of fluid, and more than 2,400 fecal  
8 streptococcus colonies per 100 milliliters of fluid.

9 13. On February 24, 1986, at 3:00 p.m., dye was introduced  
10 into the septic system serving the business located on tax lot  
11 1800 of tax map 12-5-5DD, also known as 5610 S.W. Philomath  
12 Boulevard, Corvallis, Oregon. At 10:20 a.m. on the following  
13 day, the dye was observed in liquid standing six inches above  
14 the lid of the septic tank, which is located in a manhole in the  
15 parking area of the business on that lot. The lot is small and  
16 is almost entirely covered by the building and pavement; the  
17 bare ground present on the lot was saturated to the surface on  
18 that date.

19 14. On February 25, 1986, on tax lot 2600 of tax map  
20 12-5-5DD, also known as 1640 S.W. 53rd Street, Corvallis,  
21 Oregon, dye was introduced into the septic system at 10:40 a.m.  
22 and was observed on the ground surface in the drainfield area  
23 within twenty-five minutes. A water sample then taken from that  
24 area indicated the presence of 48,000 total coliform colonies  
25 per 100 milliliters of fluid, 3,800 fecal coliform colonies per  
26 ///

1 100 milliliters of fluid, and 24,000 fecal streptococcus  
2 colonies per 100 milliliters of fluid.

3 15. On February 25, 1986, water standing on the surface of  
4 tax lot 2700 of tax map 12-5-5DD, also known as 1700 S.W. 53rd  
5 Street, Corvallis, Oregon, had the characteristic odor and  
6 appearance of sewage and was draining across the bike path,  
7 which is present near the northeastern corner of the property,  
8 adjacent to 53rd Street. Dye was introduced into the septic  
9 system of the dwelling on that lot at 12:00 noon on February 25,  
10 1986. Liquid containing the dye was observed on the ground  
11 surface of the lot, flowing across the bike path and discharging  
12 into the 53rd Street roadside ditch at 11:20 a.m. on the  
13 following day. On March 4, 1986, a water sample taken from that  
14 roadside ditch indicated the presence of 9636 total coliform  
15 colonies per 100 milliliters of fluid, 1900 fecal coliform  
16 colonies per 100 milliliters of fluid, and 100 milliliters of  
17 fecal streptococcus colonies per 100 milliliters of fluid.

18 16. On February 25, 1986, dye was introduced into the  
19 septic system on tax lot 300 of tax map 12-5-8AA, also known as  
20 5440 S.W. El Rancho Street, Corvallis, Oregon. At 3:00 p.m. on  
21 the following day, the dye was observed in liquid standing on  
22 the surface of the drainfield area. A sample then taken of that  
23 liquid indicated the presence of 9,091 total coliform colonies  
24 per 100 milliliters of fluid, 200 fecal coliform colonies per  
25 100 milliliters of fluid, 200 fecal streptococcus colonies per  
26 100 milliliters of fluid.

1           17. On February 25, 1986, a liquid with the characteristic  
2 odor and appearance of raw sewage was present on the ground  
3 surface of tax lot 400 of tax map 12-5-8AA, also known as 1840  
4 S.W. 53rd Street, Corvallis, Oregon, draining into a ditch to  
5 the west of a large storage shed on the property. Dye intro-  
6 duced into the septic system of the residence on that lot at  
7 12:20 p.m. on February 25, 1986 was observed on February 27,  
8 1986, at 2:30 p.m. on the ground surface, flowing into that  
9 ditch, then north into the El Rancho Street roadside ditch, then  
10 east into the 53rd Street roadside ditch.

11           18. On February 25, 1986, the ground surface over the  
12 drainfield on tax lot 500 of tax map 12-5-8AA, also known as  
13 1990 S.W. 53rd Street, Corvallis, Oregon, was saturated with  
14 water. Dye introduced into the septic system of the residence  
15 on that lot at 12:35 p.m. on that date was observed at 9:25 a.m.  
16 on February 27, 1986. On March 10, 1986, a sample of the liquid  
17 standing on the ground surface over the drainage area indicated  
18 the presence of a total coliform confluent growth with sheen,  
19 and the presence of 52,000 fecal coliform colonies per 100  
20 milliliters of fluid and 46,000 fecal streptococcus colonies per  
21 100 milliliters of fluid.

22           19. On February 25, 1986, liquid with the characteristic  
23 odor and appearance of raw sewage was standing in an uncovered  
24 pit east of the residence located on tax lot 900 of tax map  
25 12-5-8AB, also known as 6105 S.W. Country Club Drive, Corvallis,  
26 Oregon. A sample of the liquid in this pit indicated the

1 presence of 48,000 total coliform colonies per 100 milliliters  
2 of fluid, 418,000 fecal coliform colonies per 100 milliliters of  
3 fluid, and fecal streptococcus organisms which were too numerous  
4 to count.

5 20. On February 24, 1986, at 1:35 p.m., dye was introduced  
6 into the septic system in the mobile home located on tax lot 500  
7 of tax map 12-5-8AB, also known as 6120 S.W. Philomath  
8 Boulevard, Corvallis, Oregon. On February 26, 1986, at 10:50  
9 a.m., liquid containing the dye was discharging from a black  
10 plastic pipe onto the ground surface, then flowing into the  
11 Philomath Boulevard roadside ditch. A sample of the discharge  
12 taken on that date indicated the presence of 1,040,000 total  
13 coliform colonies per 100 milliliters of fluid, 489,000 fecal  
14 coliform colonies per 100 milliliters of fluid, and 1,364 fecal  
15 streptococcus colonies per 100 milliliters of fluid.

16 21. On February 24, 1986, at 1:50 p.m., dye was introduced  
17 into the septic system of the residence on tax lot 200 of tax  
18 map 12-5-8AB, also known as 5920 S.W. Philomath Boulevard,  
19 Corvallis, Oregon. On February 26, 1986, at 11:00 a.m., the dye  
20 appeared in the roadside ditch, which is a short distance and  
21 downslope from the drainfield area. A sample of the water in  
22 the ditch taken on February 26, 1986 indicated the presence of  
23 23,000 total coliform colonies per 100 milliliters of fluid, 545  
24 fecal coliform colonies per 100 milliliters of fluid, and 818  
25 fecal streptococcus colonies per 100 milliliters of fluid.

26 ///



1           22. On February 24, 1986, liquid with the characteristic  
2 odor and appearance of raw sewage was standing on the ground  
3 surface above the drainfield of the residence located on tax lot  
4 900 of tax map 12-5-8BA, also known as 6755 S.W. Philomath  
5 Boulevard, Corvallis, Oregon. Dye introduced into the septic  
6 system of the residence on that date was observed on the ground  
7 surface of the drainfield area at 11:45 a.m. on February 26,  
8 19867. A sample of the liquid on the ground surface in the  
9 drainfield area taken on February 25, 1986 indicated the  
10 presence of 15,455 total coliform colonies per 100 milliliters  
11 of fluid, 2,100 fecal coliform colonies per 100 milliliters of  
12 fluid, and 2,400 fecal streptococcus colonies per 100  
13 milliliters of fluid.

14           23. On February 24, 1986, liquid with the characteristic  
15 odor and appearance of raw sewage was flowing from the surface  
16 of the drainfield area of the building located on tax lot 900 of  
17 tax map 12-5-8BA, also known as 6775 S.W. Philomath Boulevard,  
18 Corvallis, Oregon, and then flowing downslope to a roadside  
19 ditch along Philomath Boulevard. Dye introduced into the septic  
20 system of that building at 10:00 a.m. on February 24, 1986 was  
21 observed one hour later flowing from a black pipe directly onto  
22 the ground surface. On March 4, 1986, a water sample taken at  
23 the point of discharge into the Philomath Boulevard roadside  
24 ditch indicated the presence of 119,000 total coliform colonies  
25 per 100 milliliters of fluid, 36,909 fecal coliform colonies per  
26 ///

1 100 milliliters of fluid, and 2,364 fecal streptococcus colonies  
2 per 100 milliliters of fluid.

3 24. On February 24, 1986, liquid with the characteristic  
4 odor and appearance of raw sewage was observed on the ground  
5 surface and flowing from the drainfield area into the Philomath  
6 Boulevard roadside ditch, on tax lot 1800 of tax map 12-5-8BA,  
7 also known as 6450 S.W. Philomath Boulevard, Corvallis, Oregon.  
8 A sample of that liquid taken the following day indicated the  
9 presence of 670,000 total coliform colonies per 100 milliliters  
10 of fluid, 2,117,000 fecal coliform colonies per 100 milliliters  
11 of fluid, and 42,000 fecal streptococcus colonies per 100  
12 milliliters of fluid.

13 25. On March 10, 1986, on tax lot 1400 of tax map 12-5-8BA,  
14 also known as 6275 S.W. Country Club Drive, Corvallis, Oregon, a  
15 sample of water standing on the surface of the drainfield area  
16 indicated the presence of 330,000 total coliform colonies per  
17 100 milliliters of fluid, 7,100 total coliform colonies per 100  
18 milliliters of fluid, and 1,000 fecal streptococcus colonies per  
19 100 milliliters of fluid.

20 26. On November 21, 1985, on tax lot 1100 of tax map  
21 12-5-8BA, commonly known as 6510 and 6600 S.W. Philomath  
22 Boulevard, Corvallis, Oregon, a liquid with the characteristic  
23 odor and appearance of raw sewage was standing in a pond on top  
24 of the sandfilter component of the sewage disposal system, which  
25 serves a residence and commercial building at that site.

26 ///

1 27. On February 24, 1986, a dye was introduced into the  
2 toilet in the store located on tax lot 200 of tax map 12-5-5DD,  
3 also known as 5500 S.W. Philomath Boulevard, Corvallis, Oregon.  
4 When the toilet was flushed, it overflowed onto the floor. The  
5 operator of the store reports that the septic system often  
6 malfunctions.

7 XIII.

8 In the area proposed for annexation, the possibility of  
9 contracting disease through direct or indirect contact with raw  
10 or inadequately treated sewage occurs due to:

- 11 1. Normal daily activities carried on in and around the  
12 residential living units in the area.
- 13 2. Children playing in the area are exposed to contami-  
14 nated surface water.
- 15 3. Domestic animals found in the subject area are possible  
16 vectors of pathogens to residents within and without the area.
- 17 4. Other vectors, such as insects, rodents, or other  
18 pests, could transmit pathogens to persons within and outside  
19 the area.
- 20 5. Persons using the bike path located in the subject area  
21 are exposed to contaminated surface water running across the  
22 path.

23 XIV.

24 Persons living within the territory proposed for annexation  
25 who contract diseases as discussed above could, in turn, carry  
26 diseases so contracted to persons living outside the subject

1 territory, either by direct personal contact or by contaminating  
2 food to be consumed by persons outside the territory. In  
3 addition, persons from outside the territory are exposed to the  
4 conditions discussed above by virtue of the passage of contami-  
5 nated water through drainage ditches along the roads in the  
6 area.

7 XV.

8 The areas proposed for annexation are contiguous to the  
9 City of <sup>Corvallis</sup> ~~Philomath~~, Oregon, and are within the urban growth  
10 boundaries of that city. \*

11 ULTIMATE FINDING OF FACT

12 The improper and inadequate installations for the disposal  
13 or treatment of sewage or other contaminated or putrifying  
14 wastes, as described above in paragraph XII, constitute  
15 conditions which are conducive to the propagation of communi-  
16 cable or contagious disease-producing organisms and which  
17 present a reasonably clear possibility that the public generally  
18 is being exposed to disease-caused physical suffering or  
19 illness.

20 CONCLUSION OF LAW

21 The conditions described above constitute a "danger to  
22 public health" under ORS 222.840 through 222.915.

23 RECOMMENDATIONS

24 1. That the Administrator of the Health Division adopt the  
25 Findings of Fact, Ultimate Finding of Fact, and Conclusion of  
26 Law herein.

2. That the Administrator of the Health Division order  
that the proposed area be annexed to the City of <sup>Corvallis</sup> ~~Philomath~~.

Respectfully submitted this 27th day of May, 1987.

SAMUEL J. NICHOLLS  
Samuel J. Nicholls  
Hearings Officer

\*

1                                               BEFORE THE STATE HEALTH DIVISION  
2                                               OF THE DEPARTMENT OF HUMAN RESOURCES  
3                                               OF THE STATE OF OREGON

4   In the Matter of the Proposed    )  
Annexation of a Certain               )    FINDINGS OF FACT,  
5   Territory known as the            )  
Philomath Boulevard area to        )    CONCLUSION OF LAW,  
6   the City of Corvallis, Benton     )  
County, Oregon, pursuant to         )    AND RECOMMENDATIONS  
7   the Provisions of ORS 222.840     )  
to 222.915 Due to Conditions        )    OF HEARINGS OFFICER  
8   Causing a Danger to Public        )  
Health.                                 )  
9

10           THIS MATTER came for hearing on October 21, 1987 at the  
11   Central Park Municipal Building Municipal Courtroom, 760 S.W.  
12   Madison, Corvallis, Oregon, a place near the area proposed for  
13   annexation. Samuel J. Nicholls served as the Hearings Officer.  
14   Assistant Attorney General Leonard J. Pearlman appeared as  
15   counsel for the Health Division. Deputy City Attorney Michael  
16   Newman appeared as counsel for the City of Corvallis. James W.  
17   Walton, Esquire, appeared as counsel for petitioners Packer,  
18   Burrell and Oliver. The following persons presented testimony:  
19   Edward Gordon Packer, Petitioner; Jack Richard Burrell,  
20   Petitioner; Neil Mann, City Engineer for the City of Corvallis;  
21   Linda Moore Donaldson, Associate Planner for the City of  
22   Corvallis; Ruth Witham, Petitioner; Charles W. Oliver,  
23   Petitioner; Robert Poole of the Benton County Sanitation  
24   Department; and Jose Basa. Ronald Hall, manager of the Health  
25   Hazard Studies Program for the Health Division was present.  
26   Members of the public were also present.

1 Evidence was received for and against the exclusion of nine-  
2 parcels from the proposed annexation. The official record of the  
3 proceeding was held open for an additional period of time and  
4 further documentary evidence was received. The Hearings Officer,  
5 having considered all the evidence, and being fully advised,  
6 makes the following Findings of Fact, Conclusion of Law, and  
7 Recommendations:

8 FINDINGS OF FACT

9 1. By order of the Oregon State Health Division dated  
10 September 19, 1987, a hearing was ordered in this matter for the  
11 following purpose: to receive evidence relative to the petitions  
12 for exclusion of territory from the territory proposed to be  
13 annexed in the within proceeding.

14 2. Notice of the hearing was given by the Health Division  
15 by publishing the notice once each week for two consecutive weeks  
16 in the Corvallis Gazette-Times, a newspaper of general  
17 circulation in the City of Corvallis, Oregon and the territory  
18 proposed to be annexed.

19 3. The following persons, owners of real property within  
20 the area proposed for annexation, petitioned for exclusion:  
21 Charles W. Oliver and Marjorie R. Oliver ("the Olivers"); Harold  
22 Packer, Phyllis Packer, Gordon Packer and Nancy Packer ("the  
23 Packers"); Ruth I. Witham; and Jose Ma. Basa and Randy G. Basa  
24 ("the Basas"). The Olivers petitioned for exclusion of two  
25 parcels of real property: tax lot 12-5-8AB-900, which shall be  
26 referred to as "Oliver Parcel I"; and tax lot 12-5-8AB-1000,

1 which shall be referred to "Oliver Parcel II". Mrs. Witham  
2 petitioned for exclusion of two parcels of real property: tax  
3 lot 12-5-8AB-400, which shall be referred to as "Witham Parcel  
4 I"; and tax lot 12-5-8AB-300, which shall be referred to as  
5 "Witham Parcel II". The Packers petitioned for exclusion of two  
6 parcels of real property: tax lot 12-5-8AB-100, which shall be  
7 referred to as "Packer Parcel I"; and tax lot 12-5-8AA-100, which  
8 shall be referred to as "Packer Parcel II". The Basas petitioned  
9 for exclusion of three parcels of real property, which shall  
10 collectively be referred to as "the Basa property": tax lot  
11 12-05W-BA-00300; tax lot 12-05W-BA-00301; and tax lot  
12 12-05W-BA-00302.

13 4. A health hazard to the public presently exists on Oliver  
14 Parcel I, and by stipulation of the Olivers, that parcel was  
15 withdrawn from their petition.

16 5. No health hazard presently exists on Oliver Parcel II.  
17 It would not be surrounded by the property remaining for  
18 annexation, nor would it be directly served by the system  
19 proposed to alleviate the danger to public health. Its exclusion  
20 from annexation would not unduly interfere with the provision of  
21 services to the remaining area, nor would its exclusion create an  
22 illogical boundary for the area. Statewide planning goals  
23 established under ORS Chapter 197 would not be violated by  
24 excluding Oliver Parcel II from annexation. Because of the  
25 topographical features of that parcel, it could not be served by  
26 the system proposed to alleviate the health hazard.



1           6. No health hazard to the public presently exists on  
2 Witham Parcel I. It would not be surrounded by the property  
3 remaining for annexation, nor would it be directly served by the  
4 system proposed to alleviate the danger to public health. Its  
5 exclusion from annexation would not unduly interfere with the  
6 provision of services to the remaining area, nor would its  
7 exclusion create an illogical boundary for the area. Statewide  
8 planning goals established under ORS Chapter 197 would not be  
9 violated by excluding Witham Parcel I from annexation. The  
10 Witham property is presently under agricultural use, and no  
11 structures exist on that parcel. Because of the topographical  
12 lay of that parcel, it could not possibly be served by the system  
13 proposed to alleviate the health hazard to the public existing  
14 within the area remaining for annexation.

15           7. No health hazard to the public presently exists on  
16 Witham Parcel II. It would not be surrounded by the property  
17 remaining for annexation, nor would it be directly served by the  
18 system proposed to alleviate the danger to public health. Its  
19 exclusion from annexation would not unduly interfere with the  
20 provision of services to the remaining area, nor would its  
21 exclusion create an illogical boundary for the area. Statewide  
22 planning goals established under ORS Chapter 197 would not be  
23 violated by excluding Witham Parcel II from annexation. Witham  
24 Parcel II is presently under agricultural use, and no structures  
25 exist on it. Because of the topographical features of that

26 ///

1 parcel, it could not possibly be served by the system proposed to  
2 alleviate the health hazard to the public existing within the  
3 area remaining for annexation.

4 8. No health hazard to the public presently exists on  
5 Packer Parcel I. It would not be surrounded by the property  
6 remaining for annexation. Its exclusion from annexation would  
7 not unduly interfere with the provision of services to the  
8 remaining area, nor would exclusion create an illogical boundary  
9 for the area. Statewide planning goals established under ORS  
10 Chapter 197 would not be violated by excluding Packer Parcel I  
11 from annexation. Packer Parcel I would be directly served by the  
12 system to alleviate the public health hazard as has been  
13 proposed, but an alternative layout of that system exists which  
14 would be sufficient to serve adjacent tax lot 12-5-8AB-200, on  
15 which a health hazard does exist. A main collection line could  
16 be run north across Philomath Boulevard from the northeast corner  
17 of that tax lot to a junction with the northernmost collection  
18 line proposed. By using the alternative route, the collection  
19 line proposed to run across the northern boundary of Packer  
20 Parcel I would not be necessary, and Packer Parcel I would not be  
21 directly served by the system necessary to alleviate the health  
22 hazard to the public existing within the area remaining for  
23 annexation. Packer Parcel I is presently under agricultural use,  
24 and has been for decades. No structures exist on that parcel,

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26 ///

1 and the southern two-thirds of that parcel could not be served by  
2 the system proposed for alleviation of the health hazard, due to  
3 the topographic features present on the parcel.

4 9. No health hazard to the public presently exists on  
5 Packer Parcel II. It would not be surrounded by the property  
6 remaining for annexation. Its exclusion from annexation would  
7 not unduly interfere with the provision of services to the  
8 remaining area, nor would its exclusion create an illogical  
9 boundary for the area. Statewide planning goals established  
10 under ORS Chapter 197 would not be violated by excluding Packer  
11 Parcel II from annexation. However, it would be directly served  
12 by the system proposed to alleviate the health hazard as a  
13 collector line would run along the north boundary of the parcel.  
14 In addition to serving Packer Parcel II, that collector line  
15 would also serve tax lot 12-5-5DD- 1700, tax lot 12-5-5DD-1800,  
16 tax lot 12-5-5DD-1900 and tax lot 12-5-5DD-2000. A health hazard  
17 to the public presently exists on tax lot 12-5-5DD-1800.

18 10. The petition submitted by the Basas was not timely  
19 filed, and need not be considered for exclusion. However, as a  
20 health hazard to the public exists on the Basa property, these  
21 parcels would not have been properly excludable even if the  
22 petition had been timely filed.

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1 CONCLUSION OF LAW

2 Pursuant to ORS 222.880(3), (4) and (5), and OAR  
3 333-12-045(1), (2) and (3), Oliver Parcel II, Witham Parcel I,  
4 Witham Parcel II and Packer Parcel I could be appropriately  
5 excluded from the area proposed for annexation.

6 RECOMMENDATIONS OF HEARINGS OFFICER

7 1. That the Administrator of the Health Division adopt the  
8 Findings of Fact, and Conclusion of Law herein.

9 2. That the Administrator of the Health Division grant the  
10 petition of the Olivers only as to Oliver Parcel II.

11 3. That the Administrator of the Health Division grant the  
12 petition of Ruth Witham in its entirety.

13 4. That the Administrator of the Health Division grant the  
14 petition of the Packers only as to Packer Parcel I.

15 5. That the Administrator of the Health Division deny the  
16 petition of the Basas in its entirety.

17 DATED this 10<sup>th</sup> day of December, 1987.

18 **SAMUEL J. NICHOLLS**

19 Samuel J. Nicholls  
20 Hearings Officer

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BEFORE THE STATE HEALTH DIVISION  
OF THE DEPARTMENT OF HUMAN RESOURCES  
OF THE STATE OF OREGON

In the Matter of the Proposed )  
Annexation of a Certain )  
Territory known as the )  
Philomath Boulevard area to )  
the City of Corvallis, Benton )  
County, Oregon, pursuant to )  
the Provisions of ORS 222.840 )  
to 222.915 Due to Conditions )  
Causing a Danger to Public )  
Health. )

SUPPLEMENTAL OPINION  
OF HEARINGS OFFICER

On December 10, 1987, the hearings officer submitted his Findings of Fact, Conclusion of Law and Recommendations regarding the October 21, 1987 hearing on the petitions for exclusion filed in the above-entitled annexation proceeding. On January 4, 1988, the City of Corvallis (hereinafter "the City") filed exceptions to those findings. On January 5, 1988, Jose Ma Basa also filed an exception to those findings. This supplemental opinion is intended to address those exceptions.

The exceptions of Mr. Basa are without merit. His petition for exclusion was not filed in a timely manner, and need not have been considered. Nonetheless, he was given an opportunity to present evidence. Mr. Basa did not rebut the facts that a hazard to public health was found to exist on the parcels of property for which he sought exclusion, and those parcels would be directly served by the system proposed to alleviate the hazard.

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1 Even if his petition for exclusion had been timely filed,  
2 therefore, the property of Mr. Basa does not meet the tests for  
3 exclusion established by statute and administrative rule.

4 The exceptions of the City merit closer attention. First,  
5 the City debates the difference between a Finding of Fact and a  
6 Conclusion of Law, citing language found in five paragraphs of  
7 the findings. It is true that the cited language (See  
8 Exceptions, page 2, lines 2-6) addresses in summary form the  
9 statutory and administrative requirements of eligibility for  
10 exclusion. Those Findings of Fact, however, are supported by the  
11 record. Addressing the specific concerns raised in parts 2 and 3  
12 of the City's Exceptions, may clarify the reasoning behind the  
13 findings and recommendations.

14 THE PROVISION OF SERVICES

15 DOES NOT REQUIRE INCLUSION.

16 In section 2 of its Exceptions, the City maintains that  
17 orderly provision of sewer services necessitates inclusion of all  
18 parcels. Though not clearly distinguished, the City's argument  
19 addresses two categories of land to be served.

20 First, the City addresses provision of services to the land  
21 remaining for annexation. It is true that the hearings officer  
22 recommends that an alternative route for one portion of one  
23 proposed sewer main be adopted, which would thus enable Packer  
24 Parcel I to qualify for exemption from annexation. However, Neil  
25 Mann, the city engineer, testified that this provision of  
26 services to tax lot 12-5-8AB-200 ("the Wehnert property"), as

1 proposed in Finding 8 would be less expensive to construct than  
2 the plan proposed by the City. The City argues in its Exceptions  
3 (at page 4, lines 1-3) that its plan "avoids unnecessary bores  
4 under the state highway," yet does not acknowledge that the  
5 single bore proposed is a more cost effective solution to the  
6 existing health hazard.

7 Aside from this one, cost effective change, the "circuitous"  
8 route of which the City complains (Exceptions, page 3, line 9) is  
9 its own design.

10 Second, future provision of services to parcels excluded  
11 needs to be addressed. If exclusion at present would result in  
12 duplicative, inefficient provision of service in the future, then  
13 exclusion should be denied. But such is not the case.

14 As the City correctly notes, two of the parcels for which  
15 exclusion is recommended - Oliver II and Witham II - could be  
16 excluded from annexation on an engineering basis, according to  
17 the testimony of Mr. Mann. This is because the topography of  
18 those parcels makes it prohibitively expensive to serve them from  
19 the main lines as laid out by the City's proposal. His testimony  
20 was also clear that because of the topography of Packer I, the  
21 City's proposal would not economically serve most of that parcel.  
22 Those three parcels would logically and economically be served by  
23 an additional gravity-fed main line along Southwest Country Club  
24 Drive heading east to a junction with an existing main at  
25 Southwest 53rd Street. Such a main has not been proposed for  
26 construction at this time.

1 Future service to Witham Parcel I could be logically  
2 provided by a westward extension of the main proposed to serve  
3 tax lot 12-5-8AB-200 ("the Wehnert property"), on which a hazard  
4 to public health was found to exist.

5 The City's Exceptions do not acknowledge that the proposed  
6 exclusions would not prevent orderly, efficient provision of  
7 service to the excluded parcels in the future, by logical  
8 extensions of the mains proposed. Indeed, Mr. Mann testified  
9 that construction costs may even be lower in the future, as they  
10 have fluctuated in the past. The argument that it is more  
11 "logical" to build the sewer mains now to areas where no hazard  
12 to public health presently exists does not bear weight on an  
13 economic basis. In any event, any increased economic burden of  
14 inefficiency would be borne by the property owners who have  
15 petitioned for this exclusion.

16 Should Packer Parcel I develop a health hazard in the  
17 future, or should its owner desire future annexation to the City,  
18 that parcel could be served by the main under Philomath  
19 Boulevard, which could be directed to the corner of Packer Parcel  
20 I and the Wehnert property on Philomath Boulevard.

21 The City appears to base its position, in part, on an  
22 "ultimate need to serve the entire area" (See Exceptions, page 4,  
23 line 3). There was no factual basis for that position presented  
24 at the hearing. Linda Donaldson, the Corvallis City Planner,  
25 testified that in the last seven years, the population of  
26 Corvallis has only grown by 2,035 persons. She also admitted



1 under cross-examination that the long-term planning projections  
2 made for the population of the City of Corvallis several years  
3 ago were inaccurate; the City has not experienced the growth  
4 predicted during the late 1960's. In light of this testimony, it  
5 appears that growth in the Corvallis area is quite slow, making  
6 planning for future services extremely speculative.

7 THE EXCLUSION WOULD NOT CREATE

8 AN ILLOGICAL BOUNDARY.

9 The four parcels for which exclusion is recommended form one  
10 contiguous unit. While the resulting shape of the area proposed  
11 for annexation may be less "regular" than the original shape of  
12 the area, "regularity" of the proposed parcel is not the test.  
13 It is "logical" to exclude property which will, in largest part,  
14 not be served by the system proposed to alleviate the health  
15 hazard; property which is in farm use (if used at all), as is the  
16 parcel immediately to the south; and property which can be  
17 economically served by extensions to the proposed sewer system if  
18 the need or the desire for annexation arises in the future.

19 STATEWIDE PLANNING GOALS WOULD NOT

20 BE VIOLATED BY EXCLUSION.

21 The City's discussion of alleged violation of Statewide  
22 Planning Goal 6 is internally inconsistent and partially at odds  
23 with testimony presented by the Corvallis City Planner. The City  
24 admits that the parcels for which exclusion is recommended do not  
25 presently pose a health hazard (See Exceptions, page 5, lines  
26 11-12). The City then argues that exclusion would be "counter-

1 productive to the purpose of the present proceedings: to avoid a  
2 known danger to public health" (Exceptions, page 5, lines 20-22),  
3 as the excluded property might fail in the future. The City is  
4 correct that the present proceedings are intended to abate known  
5 dangers to public health, but there is no known danger on the  
6 four parcels for which exclusion is recommended. It is  
7 interesting to note that later in its Exceptions, the City cites  
8 its policy to "extend services outside of the city limits on an  
9 individual property basis only where there are documented health  
10 hazards." (Exceptions, page 7, lines 23-25.)

11 The City argues that the suitability for septic systems is  
12 poor for the parcels recommended for exclusion. (Exceptions,  
13 page 5, lines 12-14.) However, Ms. Donaldson testified that the  
14 Packer property was an exception to this generalization. It  
15 should also be noted that the single septic system on the four  
16 parcels was surveyed, and was not found to be failing. According  
17 to the Benton County Sanitarian, Bill Poole, the size of that  
18 parcel (Witham I) provides adequate room for extension or  
19 replacement of the drain field should the system fail in the  
20 future.

21 The City cites Statewide Planning Goal 11, which addresses  
22 the orderly and efficient arrangement of public services, to  
23 argue that exclusion is inappropriate. While the City would  
24 surround the excluded parcels on three sides, that is not a  
25 statutory bar to eligibility for exclusion. These parcels would  
26 become a "peninsula" of the county, not an "island." The City

1 advances arguments concerning the effect of isolation of these  
2 parcels, but, on balance, these considerations do not outweigh  
3 the severe economic impact (through assessment) that inclusion of  
4 these parcels would have on the present owners. The presence of  
5 Southwest Country Club Drive and the bike path does not create an  
6 "island", preventing exclusion. The zoning differences between  
7 land on the north and south sides of Southwest Country Club Drive  
8 are neither significant nor compelling. One interesting argument  
9 is advanced: Southwest Country Club Drive will be in the city,  
10 then out of the city, and then in the city again as one drives  
11 west from 53rd Street. This might appear to create a checker-  
12 board or patchwork effect for road maintenance, but since only  
13 the north half of Southwest Country Club Drive would be in the  
14 city under the proposed annexation, the south half of the road  
15 - the east bound lane - would remain entirely within the county  
16 in any event. The exclusion of one section of the westbound lane  
17 from annexation would not significantly add to the administrative  
18 problem already created by the annexation.

19 Again, the City's argument assumes that urbanization is  
20 inevitable in this area. No factual basis for this assumption  
21 (save for the presence of this property within the urban growth  
22 boundary of the city) was presented at the hearing. Given that  
23 the population of Corvallis has been stable in recent years, it  
24 can be reasonably concluded from the facts presented at the

25 ///

26 ///

1 hearing that there is no pressure for urbanization on this  
2 property. In fact, this annexation is only contemplated because  
3 of a hazard to public health.

4 CONCLUSION.

5 The City agrees that ORS 222.880(3) gives the administrative  
6 discretion to exclude parcels meeting specified criteria. As the  
7 City notes, exclusion is not mandatory.

8 The four parcels meet the statutory tests for eligibility  
9 for exclusion. In exercising her statutory discretion, the  
10 Administrator should favor exclusion by considering the following  
11 factors:

12 1. The plan for provision of services to alleviate the  
13 hazard to public health, as amended by the hearings officer's  
14 recommendation, will cost less to construct than the  
15 configuration proposed by the City.

16 2. The vast majority of the property recommended for  
17 exclusion would not be served by the plan proposed by the City,  
18 but would await service by provision of a new main, along  
19 Southwest Country Club Drive, at some undetermined point in the  
20 future.

21 3. There is little or no pressure for urban growth making  
22 annexation of these parcels inevitable, should they be excluded  
23 by this proceeding.

24 ///

25 ///

26 ///

1 4. If sanitary sewer service to the parcels for which  
2 exclusion is recommended should be needed or desired in the  
3 future, service would be available by logical, economical  
4 extensions of the proposed lines.

5 5. As the city's engineer testified, it is quite possible  
6 that future extension of the sewer lines to the excluded parcels  
7 would cost less than construction at present. At any rate, the  
8 cost of extension, whether higher or lower, would then be  
9 voluntarily borne by the property owners.

10 6. General public policy is served by excluding these  
11 parcels: the owners have no desire to join the City, the parcels  
12 present no hazard to the public health, the parcels are in  
13 exclusive farm use, and are not necessary for the provision of  
14 services to the area as a whole. The economic impact of  
15 assessments against individual landowners whose parcels meet the  
16 standards for exclusion needs to be weighed against the need of  
17 the community for annexation of the property and the spreading of  
18 the economic burden. The Administrator should not consider  
19 statutory silence on the financial impact issue as a bar to its  
20 consideration in the exercise of discretion in this proceeding.

21 Respectfully submitted,

22 **SAMUEL J NICHOLLS**

23 Samuel J. Nicholls  
24 Hearings Officer

Area as described in Benton County Resolution:

Beginning at the southwest corner of the A.G. Hovey Donation Land Claim No. 43, Township 12 South, Range 5 West, Willamette Meridian, Benton County, Oregon; thence on said claim line, N. 89° 36' E. 1,110 feet, more or less, to the northwest corner of that certain tract of land described in M-72832-82, Benton County Deed Records; thence N. 0° 00' 30" W. 542.67 feet, more or less, to the northwest corner of that certain tract of land described in Page 781, Book 113, Benton County Deed Records; thence N. 66° 24' E. 871.2 feet, more or less, to the northwest corner of that certain tract of land described in Page 302, Book 136, Benton County Deed Records, said corner also being a point on the existing city limits boundary of the City of Corvallis; thence on said City limits boundary the following courses and distances:

S. 23° 36' E. 680 feet, more or less, to a point on the southerly right of way of S.W. Philomath Boulevard; thence on said southerly right of way, N. 66° 34' E. 111 feet, more or less; thence S. 0° 06' E. 305.71 feet, more or less, to a point on the south line of the A.G. Hovey Donation Land Claim No. 43; thence on the south line of said claim, N. 89° 35' E. 243.21 feet, more or less; thence N. 0° 06' W. 100 feet, more or less; thence N. 89° 36' E. 192.76 feet, more or less, to a point on the west right of way of S.W. 53rd Street; thence on said west right of way, S. 0° 03' 50" E. 1,453.10 feet, more or less, to a point on the south right of way of S.W. Country Club Drive;

thence leaving said City limits boundary on the south right of way of S.W. Country Club Drive, WESTERLY 4,606 feet, more or less to the northerly right of way of S.W. Philomath Boulevard; thence on said northerly right of way N. 66° 34' E. 440 feet, more or less, to the southwest corner of that certain tract of land described in Page 139, Book 194, Benton County Deed Records; thence NORTH, 1,174.67 feet, more or less, to the northwest corner of said tract; thence on the north line extended of said tract, N. 87° 44' E. 347.78 feet, more or less, to a point on the east line of the Abiather Newton Donation Land Claim No. 62; thence on the north line of that certain tract of land described in Page 430, Book 117, Benton County Deed Records, N. 88° 20' E. 1,126.29 feet, more or less, to the point of beginning.

SAVE AND EXCEPT THE FOLLOWING PARCELS:

*W. Witham*

Beginning at an iron bar on the west line of that tract of land conveyed to Myrtle D. Ravin by W. A. Bates et ux by deed recorded January 24, 1945 in Book 106, Page 449, Deed Records; which iron bar is North  $89^{\circ} 50\frac{1}{2}'$  East 1808.20 feet along the north line of the Silas Newcomb Donation Land Claim No. 50 and North  $0^{\circ} 09\frac{1}{2}'$  West along the west line of said Ravin tract 396 feet from the Southeast corner of the Abiathar Newton Donation Land Claim No. 42 in Township 12 South, Range 5 West of the Willamette Meridian; thence North  $0^{\circ} 09\frac{1}{2}'$  West along the west line of said Ravin tract 590.77 feet to an iron pipe on the south line of the Corvallis-Newport State Highway; thence South  $66^{\circ} 31\frac{1}{2}'$  West along the south line of said Highway 359.57 feet to an iron pipe; thence South  $0^{\circ} 09\frac{1}{2}'$  East 448.63 feet to an iron bar; thence North  $89^{\circ} 50\frac{1}{2}'$  East 330 feet to the point of beginning;

ALSO, Beginning at an iron pipe on the south line of the Philomath-Corvallis Highway, which pipe is north  $89^{\circ} 50\frac{1}{2}'$  East 1366.43 feet along the north line of the Silas Newcomb Donation Land Claim No. 50 in Township 12 South, Range 5 West of the Willamette Meridian, and North  $0^{\circ} 09\frac{1}{2}'$  West 796.46 feet from the Southeast corner of the Abiathar Newton Donation Land Claim No. 42; thence North  $66^{\circ} 31\frac{1}{2}'$  East 121.71 feet along the south line of the Philomath-Corvallis Highway to an iron pipe, the northwest corner of the tract of land conveyed to Henry A. Lieto and Amelia C. Lieto by deed recorded August 10, 1948 in Book 123, Page 555, Deed Records; thence South  $0^{\circ} 09\frac{1}{2}'$  East 224.63 feet along the west line of said Lieto tract; thence South  $89^{\circ} 50\frac{1}{2}'$  West 111.77 feet; thence North  $0^{\circ} 09\frac{1}{2}'$  West 176.46 feet to the place of beginning;

ALSO, Beginning at a point which is North  $89^{\circ} 50\frac{1}{2}'$  East 1366.43 feet along the north line of the Silas Newcomb Donation Land Claim No. 50 in Township 12 South, Range 5 West of the Willamette Meridian; and North  $0^{\circ} 09\frac{1}{2}'$  West 420.00 feet from the southeast corner of the Abiathar Newton Donation Land Claim No. 42; thence North  $0^{\circ} 09\frac{1}{2}'$  West 200.00 feet; thence North  $89^{\circ} 50\frac{1}{2}'$  East 111.77 feet to the west line of that tract of land conveyed to Henry A. Lieto and Amelia C. Lieto by deed recorded August 10, 1948 in Book 123, Page 555, Deed Records; thence South  $0^{\circ} 09\frac{1}{2}'$  East 200.00 feet along the west line of said Lieto tract; thence South  $89^{\circ} 50\frac{1}{2}'$  West 111.77 feet to the place of beginning;



*Mrs Witham*

*BAB-400*

*A-43*

Beginning at a 3/4" iron rod on the North line of the Silas Newcomb Donation Land Claim 50, Township 12 South, Range 5 West, Willamette Meridian, Benton County, Oregon, which point is the Southwest corner of the Thomas Scott Claim and bears South 89°43' West 16.020 chains from the Northeast corner of said Donation Land Claim 50; thence North 0°17' West along the West line of said Thomas Scott Claim 643.46 feet to a 5/8" iron rod; thence North 89°43' East 412.47 feet to a 5/8" iron rod on the East line of that parcel described in deed recorded in Book 106, page 449, Benton County Deed Records; thence South 0°17' East along the East line of said parcel 643.46 feet to a 3/4" iron pipe on the North line of said Donation Land Claim 50; thence South 89°43' West 412.47 feet to the point of beginning.

Packer

Beginning at a 1-inch pipe on the north line of the Silas Newcomb D.L.C. No. 50, Twp. 12 S., R. 5 W., Will. Mer., in Benton County, Oregon, which point is on the south line of the Thomas Scott Claim, Notification No. 4143, and bears S. 89° 43' W. 4.364 chains from the northeast corner of said Silas Newcomb Claim, and running thence N. 0° 17' W. 19.975 chains to a 1-inch pipe on the south line of the Corvallis-Newport Highway, thence S. 65° 24' W., along said south line, 5.883 chains to a 3/4-inch pipe, the northeast corner of the tract of land described in Book 106, Page 449, Benton County Deed Records, thence S. 0° 17' E., along the east line of said tract, 17.646 chains to a 3/4-inch pipe on the north line of said Silas Newcomb Claim, thence N. 89° 43' E. along said Claim line, 5.403 chains to the point of beginning, containing 10.15 acres of which 0.16 acres is in the County Road.

Exhibit D pg. 3 (corrected)

A-44



OLIVER

The following described property situated in the County of Benton and State of Oregon, to-wit:

Beginning at a point in the center of the County Road on the north line of Silas Newcomb Donation Land Claim No. 50, which point is north  $89^{\circ}50'30''$  east, 1808.20 feet from the Southeast corner of the Abiather Newton Donation Land Claim No. 42; thence north  $0^{\circ}09'30''$  east 6 chains; thence westerly parallel to the north line of said Silas Newcomb Donation Land Claim 5 chains; thence southerly parallel to the east line of the lands hereby conveyed 6 chains; thence easterly along the north line of said Silas Newcomb Donation Land Claim 5 chains to the place of beginning.

Mr. Oliver

SAB-1000





ATTACHMENT B

February 11, 1988

RECEIVED  
FEB 10 1988  
Water Quality Division  
Dept. of Environmental Quality

Utility, Transportation  
and Development Services  
408 SW Monroe Avenue  
P.O. Box 1083  
Corvallis, Oregon 97339-1083  
(503) 757-6941

Department of Environmental Quality  
Attention: Jim VanDomelen  
P.O. Box 1760  
Portland, OR 97207

Philomath Blvd. Health Hazard Annexation  
Plans and Time Schedule Submittal (per ORS 222.850 to 222.915)

Please find attached our preliminary plans and time schedule for the above mentioned project.

The proposed sewer lines will provide gravity service from the Health Hazard Area to our existing sewer system and connect at four separate points. From these connection points, flows will collect into the 18 - 30" trunk line that serves the Country Club Service Area and flow to the Brooklane Pump Station. Once here, flows are lifted to our First Street Interceptor and gravity feed to the Wastewater Reclamation Plant. All system components have adequate capacity to transport and treat wastewater flows in accordance with our NPDES Permit.

Thank you for your assistance with this project. If you have any questions or comments, please contact me at 757-6941.

*Al Mulcahy*  
Al Mulcahy  
Facility Planning Services

enclosure

PHILOMATH BLVD. HEALTH HAZARD ANNEXATION  
TIME SCHEDULE

DATE	ACTIVITIES
FEB. 15, 1988	DEQ PLAN REVIEW
APRIL 15, 1988	ANNEXATION, CONSULTANT SELECTION LOCATION SURVEY, EASMENT PROCUREMENT FINAL DESIGN, PREPARE PLANS & SPECIFICATIONS
AUG. 15, 1988	ADVERTISE FOR BIDS
SEPT. 15, 1988	AWARD CONTRACT
OCT. 1, 1988	START CONSTRUCTION
MARCH 15, 1989	COMPLETE CONSTRUCTION
JUNE 15, 1989	FINAL CONNECTIONS / ABANDON EXISTING SYSTEMS (FILL SEPTIC TANKS ETC.)

STATE OF OREGON

ENVIRONMENTAL QUALITY COMMISSION

In the Matter of an Annexation )  
of Certain Territory to the )  
City of Corvallis, Oregon, )  
Pursuant to the Provisions of )  
ORS 222.840 to 222.915 Due to )  
Conditions Causing a Danger to )  
Public Health )

CERTIFICATE

The Environmental Quality Commission of the State of Oregon on March 11, 1988, received preliminary plans and specifications together with a time schedule for the implementation of a plan to install sanitary sewers in certain territory commonly know and referred to as Philomath Boulevard Area adjacent to the corporate limits of the City of Corvallis.

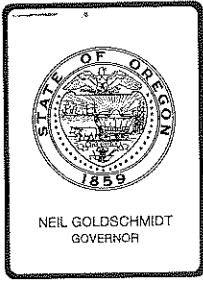
Pursuant to the Provisions of ORS 222.898, the Environmental Quality Commission reviewed and hereby approves said plans and specifications and the time schedule, copies of which are contained in Exhibit "A" attached hereto and made a part hereof and does hereby certify its approval to the City that it considers the sanitary sewers adequate to remove or alleviate the conditions causing a danger to public health existing within the area adjacent to the City of Corvallis as aforesaid; to wit: inadequate installations for the disposal and treatment of sewage.

Dated this 11th day of March, 1988.

\_\_\_\_\_  
Chairman  
Environmental Quality Commission

JLV:c  
WC3032

51



## Environmental Quality Commission

811 SW SIXTH AVENUE, PORTLAND, OR 97204 PHONE (503) 229-5696

### MEMORANDUM

To: Environmental Quality Commission  
From: Director  
Subject: Agenda Item K, March 11, 1988, EQC Meeting

Proposed Issuance of Joint Permit for the Storage, Treatment,  
and Disposal of Hazardous Waste to Chem-Security Systems, Inc.,  
Star Route, Arlington, OR 97812,  
Permit No. ORD089452353  
Date: March 11, 1988

### Background and Problem Statement

It is proposed to issue a permit to Chem-Security Systems, Inc. (CSSI) to operate a facility for the storage, treatment and disposal of hazardous wastes. The permit is proposed to be issued jointly by the Environmental Quality Commission (EQC), Department of Environmental Quality (DEQ), and the U. S. Environmental Protection Agency (EPA).

The permit is proposed to be issued in response to a permit application initially made by CSSI on November 2, 1983, and revised 21 times since. Currently, CSSI is operating under a 1980 state license and the federal hazardous waste interim status standards.

The facility is located in Gilliam County, approximately 12 road miles from the town of Arlington. The site, on Cedar Springs Road, is remote from any residential, commercial, or industrial development; the nearest residence (excluding the on-site residence occupied by a CSSI employee) being about 1 mile west of the site.

The facility being permitted consists of approximately 320 acres; however, only about half will be actively used for waste management. The facility provides hazardous waste treatment, storage, and disposal services, primarily to the Pacific Northwest, Alaska, and Hawaii, although hazardous wastes are occasionally received from other western states or foreign countries. The permit does not seek to limit the area from which the facility may receive wastes since to do so would violate federal interstate commerce regulations. (The specific issue establishing the free interstate transport of waste has been before the U. S. Supreme Court about 10 years ago.)

The facility will be owned and operated by CSSI. Previous permits, based on a statute repealed by the 1987 Legislature (SB 116), required CSSI to deed to the state all land used to dispose of hazardous waste. This amounts to about 68

acres. CSSI has agreed in principle to take back ownership of land now owned by the state. The terms of such transfer are being negotiated with the intent that transfer will be executed on or before issuance of the permit.

Annual waste receipts were approximately 102,000 tons in 1985 and 151,000 tons in 1986. The facility has operated since 1976 under a state permit and federal interim status standards. Wastes regulated as hazardous under the Resource Conservation and Recovery Act (RCRA) and by Oregon state regulations are received for storage, treatment, or disposal. The facility does not accept explosive, radioactive, or infectious wastes. Wastes that cannot be treated or disposed at the facility, or that can be reused or recycled, may be stored temporarily at the facility and then shipped off-site for treatment, disposal, or beneficial use elsewhere.

PCBs, although managed at the facility, do not fall under the auspices of this permit since the permit is issued under Resource Conservation and Recovery Act (RCRA) rules. PCBs are managed under Toxic Substances Control Act (TSCA) rules and will be the subject of separate actions by the agencies.

The main operating units addressed in the permit are 4 container storage units where drummed wastes are temporarily stored (4,140 drums total), 4 bulk liquid storage tanks where landfill leachate is now stored (25,800 gallons), 3 evaporation impoundments for evaporating water from aqueous wastes (13.4 million gallons), 1 reactive solids hydrolysis impoundment where water-reactive solids are treated (374,000 gallons), and 5 landfills (1,030 acre feet). During the term of the permit, CSSI will construct 2 new container storage units (1,500 drums) and replace 2 evaporation impoundments (9.1 million gallons) with 2 others (8.5 million gallons) with an improved liner system. The existing reactive solids hydrolysis impoundment will also be removed from service and may be replaced by a new tank system (90,000 gallons) with full secondary containment. CSSI may also construct a new tank system (90,000 gallons) for stabilization of liquid wastes which will also have full secondary containment. Finally some of the existing landfill units will undergo final closure and a new landfill unit (420 acre feet) may be constructed.

At present, the DEQ is authorized [by EPA] to implement the base RCRA program under the laws existing before passage of the Hazardous and Solid Waste Amendments of 1984 (HSWA). The EPA retains authority for the HSWA laws and permit requirements.

Because of this dual authority a joint permit is being recommended for issuance. This results in each permit condition being subject to one of three jurisdictional authorities:

- o State only authority
- o Federal only authority
- o Joint state/federal authority

As the DEQ becomes authorized for the various parts of HSWA, the permit will be modified to reflect these changes in jurisdictional authority.

Issuance of the permit will be a tripartite action between the EQC, the DEQ, and EPA, since ORS 466.140 and 466.145 vest separate authority for disposal permits and storage and treatment facility permits in the EQC and the DEQ, respectively; viz:

466.140(1) The department shall examine and review all hazardous waste disposal site license applications submitted to it and make such investigations as it considers necessary, and make a recommendation to the commission as to whether to issue the license.

(2) After reviewing the Department's recommendations under subsection (1) of this section, the commission shall decide whether or not to issue the license. It shall cause notice of its decision to be given to the applicant by certified mail at the address designated in the application. The decision of the commission is subject to judicial review under ORS 183.480.

466.145(1) The department shall review and cause to be investigated all hazardous waste [storage and] treatment site license applications submitted to it.

(2) After reviewing and investigating the application, the department shall decide whether or not to issue the license. It shall cause notice of its decision to be given to the applicant by certified mail at the address designated in the application. The decision of the department is subject to review by the commission under the provisions of ORS 183.310 to 183.550 governing contested cases.

This is reconfirmed by the EQC by rule:

340-105-001(4)(a)...Comment: Although the permit applicant or permittee will interface primarily with the Department as is indicated by these rules, hazardous waste disposal facility permits are technically issued by the Environmental Quality Commission while hazardous waste storage and treatment facility permits are issued by the Department.

Permit conditions issued under authority of the DEQ may be appealed to the EQC as a contested case within 20 days of permit issuance (OAR 340-11-107). However, since this course is not available by rule for conditions issued under authority of the EQC, it is requested that this opportunity be provided to CSSI by an order of the EQC (ORS 183.310(2)(a)(D)). The specific wording of this order will be given to EQC by legal counsel before or at the time of their deliberations.

The permit is proposed to be issued for a term of ten years but must be completely reviewed after five years. All aspects of hazardous waste treatment, storage, and disposal activity are addressed, including the receipt of waste, the construction, operation, monitoring, closure, and post-closure care (if applicable) of all waste management units, and corrective action for past practices (if necessary).

The provisions of 40 CFR Part 124 Subpart A and OAR Chapter 340, Division 106 have been followed during the permitting process. This included making the permit application, draft permit, a fact sheet, and all documents relating to the permit available for public comment between August 14, 1987 and October 6, 1987. These documents were placed at the offices of the Department in Portland and at EPA in Seattle, Washington. A copy of the permit application, draft permit, and

fact sheet was placed in the Arlington, Oregon public library. The draft permit and fact sheet were also placed in the Multnomah County central library in Portland and the DEQ's office in Pendleton, Oregon. In addition, notification was sent by direct mail to all hazardous waste generators registered in Oregon and to all individuals who have expressed an interest in receiving information on Oregon's hazardous waste program. This is over 1,600 names. Finally, public notice was placed in newspapers in Portland, Seattle, The Dalles, Medford, Salem and Spokane and announced over radio in The Dalles.

The public review process culminated in an October 6, 1987 public hearing in Arlington at which approximately 45 people were present. Six people submitted either oral or written comments. In addition, 10 letters of written comment were received during the comment period. All the comments are addressed in the attached Response to Comments.

Several major issues were identified during the public comment period. Many persons wanted the DEQ to establish a Citizens Advisory Committee (CAC) to oversee the operation of the site; wanted CSSI to upgrade Cedar Springs Road which leads to the facility; and wanted the local air quality to be monitored.

The DEQ has reviewed the possibility of establishing a CAC and agrees that it is very important to set up open lines of communication between the agencies, the public, and the permitted facility. However, it is DEQ's recommendation that a CAC may not be the best vehicle to accomplish this. The DEQ proposes to set up a community information program which will ensure a comprehensive flow of information to the public and provide adequate opportunity for the public to interact, as needed, with the DEQ, as regulator, and the facility. The DEQ's community information program will be set up outside the permit; Attachment IV is a description of this proposed program.

The DEQ has also reviewed the possibility of requiring CSSI to upgrade Cedar Springs Road. However, after review with legal counsel, the DEQ has addressed this request to the county, as neither the DEQ or the EPA have the statutory or regulatory authority to require road improvements outside of the facility. (See Attachment V.)

Finally, the DEQ and EPA have considered the issue of monitoring air quality using either modeling or emission technology. For the first approach, the air emissions are measured for use in a dispersion model to estimate the amount or concentration of airborne contaminants at the nearest residences. Then, using acceptable dose information to estimate risk of injury to human health, an allowable level of airborne contaminants is extrapolated back to the emission source. The final step is to specify emission control techniques or devices to achieve these allowable levels. The second approach is to select, regardless of air quality, the best demonstrated available technology to minimize the potential for airborne contamination.

At this time, health based data for inhalation of RCRA wastes (reference doses [RfD's] and cancer potency factors) have not been well established. For instance, there is no consensus on the methodology to establish inhalation RfD values. The EPA is attempting to develop air monitoring and emission control standards but this has proven to be a difficult task. To date, neither monitoring methods nor control standards have been developed. In fact, very



basic issues such as whether to monitor for all volatile organic compounds (VOC's) as a group or as individual constituents has not been decided.

Likewise, the DEQ is also in the process of developing a regulatory program to address the problem of hazardous air contaminants. An interim program for controlling these pollutants is being applied to new sources, and those undergoing major modifications, as part of the existing permit review process. A strategy for expanding this review to include existing sources is being considered. It is anticipated that a set of regulations will be finalized within the next year. After adoption, modifications can be made to the permit to reflect these new rules if necessary. Coupling this information with the fact that CSSI owns a substantial buffer zone around the hazardous waste management area and the nearest resident is over a mile away, led the agencies to conclude that emission technology is the preferred approach.

Conditions have been written into the permit which utilize the best demonstrated available technology to minimize the potential for airborne contamination. For example, the permit contains land disposal restrictions which set strict standards on wastes containing volatile organics that can be placed in surface impoundments and landfills. Additionally, certain types of facility management practices such as dust suppressants and daily cover of waste will be used to minimize the potential for fugitive dust emissions from landfill cells. Prior to storage of volatile organic waste in the bulk liquid storage tanks, a carbon filtration system will be required to minimize the release of volatiles through the tank vent system.

CSSI has submitted over 400 pages of comment with the most significant issue being that of groundwater monitoring. The proposed permit requires about 50% more monitoring wells than was proposed by CSSI in their permit application. The difference in the number of wells owes to that predicted necessary to immediately detect groundwater contamination using CSSI's model as opposed to the number predicted using the DEQ/EPA model. A more detailed analysis may be found in Response to Comments Nos. 118-145 (Attachment III).

The permit conditions include the following aspects of site management:

- o Wastes to be handled (and not handled).
- o Waste analysis plan (how and when wastes will be sampled and analyzed).
- o Security measures.
- o Inspection plan (what is to be inspected, how, frequency).
- o Prevention and preparedness (how to prevent accidents).
- o Contingency plan (what to do in the event of an accident).
- o Training programs for employees.
- o Closure and post-closure (monitoring, site security) plans; cost estimates and financial assurance. Post-closure remedial action.

- o Closure and post-closure (monitoring, site security) plans; cost estimates and financial assurance. Post-closure remedial action.
- o Liability coverage for sudden and non-sudden accidental occurrences.
- o Groundwater monitoring (to ensure immediate detection of contamination).
- o Specific design and operating requirements for each waste management unit (impoundments, landfills, etc.).

In addition, there are a few permit conditions and those deleted from the previous permit which are worth noting:

- o There is no requirement for a disposal request approval as required by earlier permits. Permit Attachment 11 accomplishes this same purpose by specifying at the outset which hazardous wastes CSSI may and may not accept.
- o CSSI is providing financial assurance of approximately \$6.6 million for closure, \$2.2 million for post-closure care, and \$0.4 million, to be increased at 7.5% per annum, for post-closure remedial action. In addition, CSSI is providing liability insurance in the amount of \$1 million per occurrence/\$2 million annual aggregate for sudden accidental occurrences and \$3 million/\$6 million for non-sudden accidental occurrences (primarily water pollution).
- o CSSI will no longer be required to deed to the state the land used for disposal of hazardous waste.

#### Summation

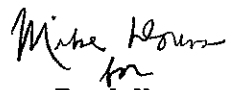
1. CSSI's Arlington facility is currently operating under a 1980 state license and the federal hazardous waste interim status standards. The interim status standards are jointly administered by DEQ and EPA with the latter responsible for the HSWA requirements.
2. On November 2, 1983, CSSI submitted an application for a RCRA permit to store, treat and dispose of hazardous waste. That permit application and 21 subsequent revisions have been reviewed by DEQ, EPA, and several technical consultants to EPA. A 45-day public comment period and public hearing was held August-October, 1987.
3. Issuance of the permit will be a tripartite action between the EQC, DEQ, and EPA.
4. Permit conditions issued under authority of DEQ may be appealed to the EQC as a contested case within 20 days of permit issuance. However, since this course is not available by rule for conditions issued under authority of the EQC, it will have to be provided to CSSI by order of the EQC.

EQC Agenda Item No. K  
March 11, 1988  
Page 7

Director's Recommendation

Based upon the summation, it is recommended that the Commission:

1. Join the Department and EPA in issuing a permit to store, treat, and dispose of hazardous waste to Chem-Security Systems, Inc.; and,
2. Issue the order proposed by legal counsel to provide CSSI the opportunity for a contested case appeal within 20 days of issuance of the permit.

  
Fred Hansen

Attachment I - Proposed permit  
Attachment II - Hearing Officer's Report  
Attachment III - Response to Comments  
Attachment IV - Community Information Program  
Attachment V - Letter to Gilliam County

Fred Bromfeld:m  
SM1271  
229-6210  
February 24, 1988

If you would like a copy  
of the attachments,  
please contact  
Mr. Fred Bromfeld  
Hazardous and Solid Waste Division  
229-6210


STATE OF OREGON

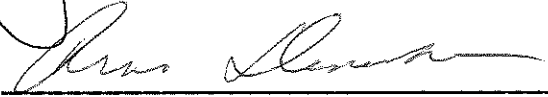
ENVIRONMENTAL QUALITY COMMISSION

In re: Permit No. ORD-089-452-353) ORDER PROVIDING  
 Chem-Security Systems, Inc., ) OPPORTUNITY FOR  
 ) CONTESTED CASE  
 Permittee. )

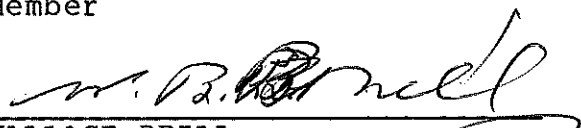
Pursuant to ORS 183.310 and 466.145, IT IS ORDERED THAT:  
 Provisions of this permit issued under the authority of  
 the Department of Environmental Quality or the Environmental  
 Quality Commission shall be subject to review by contested case  
 hearing before the Environmental Quality Commission in the  
 manner set forth in OAR Chapter 340, Division 11.


DATED this 11<sup>th</sup> day of March, 1988.

  
 JAMES E. PETERSEN  
 Chairman

  
 ARNO DENECKE  
 Vice-Chairman

\_\_\_\_\_  
 MARY BISHOP  
 Member

  
 WALLACE BRILL  
 Member

  
 BILL HUTCHISON  
 Member

DEPARTMENT OF JUSTICE  
 500 PACIFIC BLDG., 520 S.W. YAMHILL  
 PORTLAND, OREGON 97204-1381  
 TELEPHONE 229-5725

1 CERTIFICATE OF SERVICE

2 I certify that on March 11, 1988, I served the foregoing  
3 Order Providing Opportunity for Contested Case upon the parties  
4 hereto by mailing, regular mail, postage prepaid, an exact and  
5 full copy thereof to:

6 Don Haagensen  
7 Schwabe, Williamson & Wyatt  
8 1600-1800 PacWest Center  
9 1211 S.W. Fifth Avenue  
10 Portland, Oregon 97204  
11 Attorney for Chem-Security  
12 Systems, Inc.

11 *Fred Hansen by KNP*  
12 FRED HANSEN  
13 Director  
14 Department of Environmental  
15 Quality

16  
17  
18  
19 DEPARTMENT OF JUSTICE  
20 500 PACIFIC BLDG., 520 S.W. YAMHILL  
21 PORTLAND, OREGON 97204-1381  
22 TELEPHONE 228-5725  
23

24  
25  
26  
Page

ATTACHMENT I

Proposed Permit

**JOINT PERMIT  
for the  
Storage, Treatment, and Disposal of Hazardous Waste**

Department of Environmental Quality  
811 Southwest Sixth Avenue  
Portland, Oregon 97204

Telephone: (503) 229-5913

U.S. Environmental Protection Agency  
Region 10  
1200 Sixth Avenue, HW-112  
Seattle, Washington 98101  
Telephone: (206) 442-1236

Issued in accordance with the applicable provisions of ORS Chapter 466 and the regulations promulgated thereunder in OAR Chapter 340 Divisions 100 through 120 and the Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act (RCRA) and the Hazardous and Solid Waste Amendments of 1984 (HSWA), and the regulations promulgated thereunder in Title 40 of the Code of Federal Regulations.

---

**ISSUED TO:**

CHEM-SECURITY SYSTEMS, INC.  
Star Route  
Arlington, Oregon 97812  
Telephone: (503) 454-2643

This permit is effective as of March 11, 1988, and shall remain in effect until March 10, 1998, unless revoked and reissued (40 CFR §270.41), terminated (40 CFR §270.43), or continued in accordance with 40 CFR §270.51.

**ISSUED BY:**

OREGON ENVIRONMENTAL QUALITY COMMISSION, ENVIRONMENTAL PROTECTION AGENCY, AND  
OREGON DEPARTMENT OF ENVIRONMENTAL QUALITY

\_\_\_\_\_  
James E. Petersen, Chairman  
Oregon Environmental Quality  
Commission

Date \_\_\_\_\_

\_\_\_\_\_  
Charles E. Findley, Director  
Hazardous Waste Division  
Environmental Protection Agency

Date \_\_\_\_\_

\_\_\_\_\_  
Frederic J. Hansen, Director  
Oregon Department of  
Environmental Quality

Date \_\_\_\_\_

---

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## INTRODUCTION

**Permittee: Chem-Security Systems, Incorporated**  
**Environmental Protection Agency Identification Number: ORD 089 452 353**

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), and pursuant to the Solid Waste Disposal Act (42 U.S.C. §3251 et seq.), as amended by the Resource Conservation and Recovery Act of 1976 (42 U.S.C. §6901 et seq., (RCRA) and the Hazardous and Solid Waste Amendments of 1984 (HSWA) and regulations promulgated thereunder by the U.S. Environmental Protection Agency (Agency) in Title 40 of the Code of Federal Regulations, this permit is issued to Chem-Security Systems, Incorporated (Permittee), to operate a hazardous waste treatment, storage, and disposal facility located in Gilliam County at Arlington, Oregon, on Cedar Springs Road, at latitude 45° 37' 30" and Longitude 120° 22' 30".

The Permittee must comply with all terms and conditions set forth in this permit and in Attachments 1 through 25. The Permittee must comply with all applicable state 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. Additionally, the Permittee must comply with all applicable federal regulations in 40 CFR Parts 260 through 266, Part 268, and Part 270.

In some cases, within the Attachments to 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 comply with the procedures of those referenced documents, even though they are not physically contained in this permit. The Permittee must maintain a set of such referenced documents at the facility.

The Permittee must maintain any documents at the facility which are referenced by the Department or the Agency in any condition of this permit, even though such referenced documents may not be physically contained in the permit. The Permittee shall comply with the procedures and specifications of those referenced documents to the extent necessary to remain in compliance with the conditions of this permit.

The Agency's issuance of this permit is based upon the administrative record, as required by 40 CFR §124.9. The Permittee's failure in the application or during the permit issuance process to disclose fully all relevant facts, or the Permittee's misrepresentation of any relevant facts at any time, shall be grounds for the termination or modification of this permit and/or initiation of an enforcement action, including criminal proceedings. The Permittee must inform the Director and the Administrator (according to authorities specified in Table 1 of this permit) of any deviation from permit conditions or changes in the information on which the application is based which would affect the Permittee's ability to comply, or actual compliance, with the applicable regulations or permit conditions or which alters any condition of this permit in any way.

The Department shall enforce all conditions of this permit which are designated in this permit as state requirements. Any challenges of any permit condition that concern state requirements, shall be appealed to the Environmental Quality Commission, as a contested case, in accordance with OAR 340 Division 11 or any other procedure adopted by the Environmental Quality Commission governing a contested case hearing on this permit.

The Agency shall enforce all permit conditions which are based on federal regulations promulgated under HSWA, but have not yet been adopted by the State of Oregon and have not been included in the state's authorized hazardous waste program. The Agency shall maintain an oversight role of the state authorized program and, in such capacity, shall enforce any permit condition based on state requirements if, in the Agency's judgment, the Department should fail to enforce that permit condition, except that in no case shall the Agency enforce any permit condition which is broader in scope than the federal program.

Table 1, of this section, lists those permit conditions which are based on state authority, those which are based on federal authority, and those which are based on concurrent state/federal authority. Those conditions designated as "Department Authority" include two types of conditions:

1. Conditions for which the state authority is based on the state's authorized program (i.e., for which the Agency has granted final authorization to the state to implement the state program in lieu of the federal RCRA program). These conditions are enforceable by the Agency in an oversight capacity of the state authorized program; and,
2. Conditions which are based on state rules which are broader in scope than the federal RCRA program (i.e., there is no federal counterpart to the state rule). Such rules are not part of the authorized state program and, although fully enforceable by the Department, can not be enforced by the Agency.

As the State of Oregon receives final authorization for additional clusters of federal amendments to RCRA [such as the Hazardous and Solid Waste Amendments of 1984 (HSWA)], permit conditions specified in Table 1 will be moved from the "Concurrent State/Federal Authority" category to "Department Authority". Minor wording changes, such as to whom the Permittee must submit reports, will be made on the appropriate pages of the permit and distributed to those persons holding copies of the permit. Such changes to Table 1 and various pages of the permit will not be treated as a permit modification, under 40 CFR §270.41.

Those conditions designated as "Agency Authority" include those conditions for which equivalent statutory or regulatory authority has not been adopted by the state. As the state adopts such statutes and rules, conditions in this category will be moved to the "Concurrent Department/Agency Authority" section of Table 1. Once the state receives final authorization from the Agency for this segment of the hazardous waste program, these conditions will be moved to the "Department Authority" category. Such changes in Table 1 and in the language of the affected permit conditions, shall not be considered as permit modifications, under 40 CFR §270.41.

Those conditions designated as "Concurrent Department/Agency Authority" include two types of conditions:

1. Conditions for which the Department and the Agency have dual authority (i.e., the state has adopted rules equivalent to the those of the federal program, but final authorization for those rules has not yet been granted by the Agency; and,
2. Conditions which apply to a combination of distinct state and federal authorities. The criteria for placing conditions in this category is whether both the Department and the Agency would have to specify the same condition if issuing separate state and federal permits. Most of the Standard Conditions, Section I of the permit, are in this category. Both the Department and the Agency must maintain authority for enforcement of these provisions. As stated above, the movement of specific permit conditions into or out of the "Concurrent Department/State Authority" category shall not be considered a permit modification, under 40 CFR §270.41.

TABLE 1

DEFINITION OF STATE AND FEDERAL AUTHORITY

CONCURRENT DEPARTMENT/AGENCY AUTHORITY

I.A.	I.B.	I.C.	I.D.(1)
I.D.(2)	I.D.(3)	I.E.(1)	I.E.(2)
I.F.(1)	I.F.(2)	I.G.	I.H.
I.I.	I.J.	I.K.	I.L.
I.M.	I.M.(1)	I.M.(2)	I.M.(3)
I.M.(4)	I.N.(1)	I.N.(2)	I.N.(3)
I.N.(3)(a)	I.N.(3)(b)	I.N.(3)(c)	I.N.(3)(d)
I.N.(3)(e)	I.N.(3)(f)	I.O.	I.P.
I.P.(1)	I.P.(2)(a)	I.P.(2)(b)	I.Q.
I.S.	I.T.	I.U.(1)	I.U.(1)(a)
I.U.(1)(b)	I.U.(2)	I.U.(2)(a)	I.U.(2)(b)
I.U.(2)(c)	I.U.(2)(d)	I.U.(2)(e)	I.U.(2)(f)
I.U.(2)(g)	I.U.(3)	I.V.	I.W.
I.X.	I.Y.	II.A.(1)	II.A.(2)
II.B.(1)	II.B.(2)	II.C.(1)	II.C.(1)(a)
II.C.(1)(c)	II.C.(2)	II.E.(1)	II.E.(2)
II.E.(3)	II.E.(4)	II.E.(4)(a)	II.E.(4)(b)
II.E.(4)(c)	II.F.(1)	II.F.(2)	II.I.(1)(a)
II.I.(2)	II.I.(3)	II.I.(4)	II.I.(6)
II.I.(7)	II.J.(15)	II.L.(1)	II.L.(2)
II.M.(1)	II.M.(2)	II.M.(3)	II.M.(4)
II.M.(5)	II.M.(6)	II.O.(1)	II.O.(3)
III.A.(1)(a)	III.A.(1)(b)	III.A.(1)(c)	III.B.
IV.B.(1)	IV.B.(2)	IV.B.(3)	IV.C.(1)
IV.C.(2)	IV.C.(3)	IV.C.(4)	IV.C.(5)
IV.D.(1)	IV.D.(2)	IV.D.(3)	IV.D.(5)(a)
IV.D.(5)(b)	IV.E.(1)	IV.E.(2)	IV.E.(3)
IV.E.(5)	IV.E.(6)(a)	IV.F.(1)	IV.F.(2)
IV.F.(3)	IV.F.(5)	V.A.(1)	V.A.(2)
V.A.(4)	V.A.(4)(a)	V.A.(5)	IV.F.(6)
V.A.(8)	V.A.(11)	V.A.(11)(a)	V.A.(11)(b)
V.A.(11)(c)	V.A.(11)(c)(1)	V.A.(11)(c)(2)	V.A.(11)(c)(3)
V.A.(11)(c)(4)	V.A.(11)(d)	V.A.(11)(e)	V.A.(11)(f)
V.B.(1)	V.B.(2)	V.B.(4)	V.B.(6)
VI.A.(2)	VI.A.(2)(a)	VI.A.(2)(b)	VI.A.(2)(c)(1)
VI.A.(2)(c)(2)	VI.A.(4)	VI.A.(6)	VI.A.(8)
VI.B.(2)	VI.B.(2)(a)	VI.B.(2)(b)	VI.B.(2)(c)(1)
VI.B.(2)(c)(2)	VI.B.(3)(a)	VI.B.(3)(b)	VI.B.(3)(c)
VI.B.(4)	VI.B.(5)	VI.B.(6)	VI.B.(7)
VI.B.(7)(a)	VI.B.(7)(b)	VI.B.(7)(c)	VI.B.(7)(c)(1)
VI.B.(7)(c)(2)	VI.B.(7)(c)(3)	VI.B.(7)(c)(4)	VI.B.(7)(d)
VI.B.(7)(e)	VI.B.(7)(f)	VI.B.(8)	

TABLE 1 (continued)

CONCURRENT DEPARTMENT/AGENCY AUTHORITY (continued)

VI.B.(10)	VIII.A.	VIII.B.	VIII.C.(1)
VIII.C.(2)	VIII.C.(3)(a)	VIII.C.(3)(b)	VIII.C.(3)(c)
VIII.D.	IX.A.	IX.A.(1)	IX.A.(2)
IX.A.(3)	IX.A.(3)(a)	IX.A.(3)(b)	IX.B.
IX.B.(1)	IX.B.(1)(a)	IX.B.(1)(b)	IX.B.(2)
IX.B.(3)	IX.B.(4)	IX.B.(5)	IX.B.(6)
IX.B.(7)	IX.B.(8)	IX.C.(1)	IX.C.(2)
IX.C.(3)	IX.D.	IX.D.(1)	IX.D.(2)
IX.D.(3)	IX.D.(4)	IX.D.(4)(a)	IX.D.(4)(b)
IX.D.(4)(c)	IX.D.(6)	IX.E.	IX.E.(1)
IX.E.(2)	IX.E.(3)	IX.E.(4)	IX.E.(5)
IX.E.(6)	IX.F.	IX.F.(1)	IX.F.(1)(a)
IX.F.(1)(b)	IX.F.(2)	IX.F.(3)	IX.F.(3)(a)
IX.F.(3)(b)	IX.F.(4)	IX.F.(4)(a)	IX.F.(4)(b)
IX.F.(4)(c)	IX.F.(5)	IX.F.(6)	IX.F.(7)
IX.G.(1)	IX.G.(2)	IX.G.(3)	IX.G.(4)

DEPARTMENT AUTHORITY

I.R.	II.D.	II.G.	II.H.
II.I.(1)(b)	II.I.(5)	II.J.(1)	II.J.(2)
II.J.(2)(a)	II.J.(2)(b)	II.J.(2)(c)	II.J.(3)
II.J.(4)	II.J.(5)	II.J.(6)	II.J.(7)
II.J.(8)	II.J.(9)	II.J.(10)	II.J.(11)
II.J.(12)	II.J.(12)(a)	II.J.(12)(b)	II.J.(12)(c)
II.J.(13)	II.J.(14)(a)	II.K.(1)	II.K.(2)
II.K.(3)	II.K.(4)	II.K.(5)	II.K.(6)
II.K.(7)	II.N.(1)	II.N.(2)	II.N.(3)
II.O.(2)	II.P.(1)	II.P.(2)	II.Q.
III.A.(2)	III.A.(3)	III.A.(4)	III.C.
III.D.(1)	III.D.(2)	III.E.	III.F.(1)
III.F.(2)	III.F.(3)	III.G.	IV.A.(1)
IV.A.(2)	IV.B.(4)	IV.B.(5)	IV.D.(4)
IV.E.(4)	IV.E.(6)(b)	IV.F.(4)	IV.G.
V.A.(3)	V.A.(6)	V.A.(7)(a)	V.A.(7)(b)
V.A.(9)	V.A.(10)	V.A.(12)	V.B.(3)
V.B.(5)(a)	V.B.(5)(b)	V.B.(7)	V.B.(8)
VI.A.(1)	VI.A.(2)(e)	VI.A.(3)	VI.A.(5)
VI.A.(7)	VI.B.(1)	VI.B.(2)(e)	VI.B.(9)
VII.A.(1)	VII.A.(2)	VII.A.(3)	VII.B.
IX.D.(5)			

AGENCY AUTHORITY

II.C.(1)(b)	II.I.(8)	II.J.(14)(b)	VI.A.(2)(d)
VI.B.(2)(d)			

LIST OF ATTACHMENTS

The following documents are excerpts from the Permittee's RCRA permit application. The listed documents are hereby incorporated, in their entirety, by reference into this permit. The Department and the Agency have, as deemed necessary, modified specific language in the Attachments. These modifications are described in the permit conditions (Sections I. through IX.), and thereby supercede the language of the original Attachment. These incorporated Attachments are enforceable conditions of this permit, as modified by the specific permit conditions.

- Attachment 1 Facility Legal Description and Map of Facility Location, consists of:  
Figure B-1 of permit application, last revised September 1987.
- Attachment 2 Waste Analysis Plan, consists of:  
Exhibit 2 of permit application, last revised December 1987.
- Attachment 3 Security Procedures, consists of:  
Section B.3 of permit application, last revised June 1986.
- Attachment 4 Inspection Plan, consists of:  
Exhibit 3 of permit application, last revised December 1987.
- Attachment 5 Training Plan, consists of:  
Exhibit 9 of permit application, last revised May 1987.
- Attachment 6 Hazards Prevention, consists of:  
Section E of permit application, last revised December 1987.
- Attachment 7 Contingency Plan, consists of:  
Exhibit 8 of permit application, last revised October 1987.
- Attachment 8 Closure and Postclosure Plans, consists of:  
Exhibit 13 of permit application, including:  
• Appendix A: Soil Sampling and Analysis Plan;  
• Appendix B: Equipment Decontamination Procedure;  
• Appendix C: Supporting Calculations and Time Schedules for Closure of Surface Impoundments and Landfills.  
(Exhibit 13 last revised December 1987).



- Attachment 9 Closure Cover Design Details, consists of:
- Exhibit 20A: Final Cover Design, Landfills L-1, 3, 5, & 6, (last revised July 1987);
  - Exhibit 20B: Closure Cover Design, Landfills L-7, 8, 9, 10, & 12, (last revised May 1987); and,
  - Exhibit 20C: Closure Cover Design, Landfill L-13, (last revised May 1987).
- Attachment 10 Groundwater Monitoring Program, consists of:
- Exhibit 10 Section 4: Design and Construction of Groundwater Monitoring System;
  - Exhibit 10 Section 5: Groundwater Sampling and Analysis;
  - Exhibit 10 Section 6: Detection Monitoring Program;
  - Exhibit 10 Section 7: Groundwater Monitoring Data Evaluation; and,
  - Exhibit 10 Appendix C: Manual for Groundwater Sampling (Waste Management, Inc.).
- (Exhibit 10 of permit application last revised July 1987).
- Attachment 11 RCRA Part A permit application, consists of:
- EPA Form 3510-1, page 4 of 5, last revised February 1988; and,
  - Part II -- Part A of the RCRA Permit Application, pages II-5 through II-11, last revised May 1987.
- Attachment 12 Container Storage -- Design and Operations, consists of: Section D.2 of permit application, including:
- Attachment (Appendix) 1: Concrete Pad Sealant Specifications; and,
  - Attachment (Appendix) 2: Overpack Drum Specifications.
- (Section D.2, last revised October 1987).
- Attachment 13 Bulk Liquid Storage -- Design and Operations, consists of: Section D.3 of permit application, last revised June 1987.
- Attachment 14 Stabilization Unit -- Design and Operations, consists of: Section D.4 of permit application, including:
- Attachment (Appendix) 1: Stabilization of Liquid Hazardous Wastes by Solidification; and,
  - Attachment (Appendix) 2: Reactivity Evaluation of Lime Based Stabilization Reagents.
- (Section D.4 last revised December 1987).
- Attachment 15 Reactive Solids Hydrolysis Unit --Design and Operation, consists of: Section D.5 of permit application, last revised May 1987.
- Attachment 16 Truck Washing Unit -- Design and Operation, consists of: Section D.8 of permit application, last revised June 1987.
- Attachment 17 Surface Impoundment Units -- Design and Operation, consists of: Section D.6 of permit application, last revised October 1987.

- Attachment 18 Impoundment Drawings, consists of:
- Exhibit 4A: Existing Surface Impoundment Drawings, (last revised May 1987); and,
  - Exhibit 4B: Proposed Surface Impoundment Drawings, (last revised August 1987).
- Attachment 19 Landfill/Impoundment Technical Specifications, consists of:
- Exhibit 16A: Technical Specifications: Landfill L-13;
  - Exhibit 16B: Technical Specifications: Landfill L-12 and Impoundments P-A, P-B, and P-C;
  - Exhibit 16C: Technical Specifications: Landfill L-13 Cells 1 and 2 (modifies Exhibit 16A); and,
  - Exhibit 16D: Technical Specifications: Landfill L-13 Cells 3 through 6 (modifies Exhibit 16C).
- (Exhibits 16A, 16B, 16C, and 16D of permit application last revised May 1987).
- Attachment 20 Soil Liner Details, consists of:
- Exhibit 7B: Quality Assurance Manual for the Installation of Soil Components of Linings and Final Cover Systems. (Exhibit 7B of permit application last revised June 1986).
- Attachment 21 Synthetic Liner Details, consists of:
- Exhibit 5B: Specification Guidelines for the Procurement and Installation of High Density Polyethylene Geomembranes; and,
  - Exhibit 5C: Quality Assurance Manual for the Installation of High Density Polyethylene Geomembranes.
- (Exhibits 5B and 5C of permit application last revised June 1986).
- Attachment 22 Response Action Plans, consists of:
- Exhibit 21A: Response Action Plan for Landfill L-13, Cells 1 and 2, (last revised April 1987);
  - Exhibit 21B: Response Action Plan for Surface Impoundments P-A, P-B, and P-C, (last revised May 1987); and,
  - Exhibit 21C: Response Action Plan for Landfill L-13, Cells 3, 4, 5, and 6, (last revised September 1987).
- Attachment 23 Landfills -- Design and Operation, consisting of:  
Section D.7 of permit application, last revised December 1987.
- Attachment 24 Landfill Drawings and Reports, consisting of:
- Exhibit 6A: Existing Landfill Drawings (L-7 through L-10); and,
  - Exhibit 6B: New and Proposed Landfill Drawings (L-13 and L-12).
- (Exhibit 6A of permit application last revised February 1987).  
(Exhibit 6B of permit application last revised June 1987).

Attachment 25

Surface Water Management Plan, consists of:  
Section D.10 of permit application, as last revised  
January 1988.

DEFINITIONS

For purposes of this joint permit, the following definitions shall apply:

- a. The term "permit" shall mean the joint permit issued by the Oregon Environmental Quality Commission and the Oregon Department of Environmental Quality, pursuant to ORS 340 Divisions 105 and 106, and by the Environmental Protection Agency, Region 10, pursuant to 40 CFR Parts 124 and 270.
- b. The term "Director" shall mean the Director of the Oregon Department of Environmental Quality (DEQ) or a designated representative.
- c. The term "Manager" shall mean the manager of the DEQ hazardous waste program.
- d. The term "Inspector" shall mean the designated representative of the "Manager" delegated routine facility oversight.
- e. The term "Administrator" shall mean the Administrator of the U.S. Environmental Protection Agency (EPA) or a designated representative. The Director, Hazardous Waste Division, EPA Region 10, (with the address as specified on page one of this permit), is a duly authorized and designated representative of the Administrator for purposes of this permit.
- f. The term "Department" shall mean the Oregon Department of Environmental Quality, (with the address as specified on page one of this permit).

- g. The term "Agency" shall mean the U.S. Environmental Protection Agency, Region 10, (with the address as specified on page one of this permit).
- h. The term "Commission" shall mean the Oregon Environmental Quality Commission (with the same address as the "Department").
- i. The terms "facility" or "site" shall mean the physical description of the property (including structures, appurtenances, and improvements) used to manage hazardous waste. This property description is as set forth in Attachment 1 of this permit.
- j. In cases where the Permittee is required to comply with a specific provision of 40 CFR Part 264 and that provision refers to "Regional Administrator" or "Director", the term "Regional Administrator" or "Director" shall be interpreted to mean both the Director, Hazardous Waste Division, EPA Region 10 and the Manager, Hazardous Waste Program.
- k. All definitions contained in 40 CFR §§260.10, 270.2, 264.141, and OAR 340-100-010 are hereby incorporated, in their entirety, by reference into this permit, except that any of the definitions used above, (a) through (g), shall supercede any definition of the same term given in 40 CFR §§260.10, 270.2, 264.141, and OAR 340-100-010.

**I. STANDARD CONDITIONS**

**I.A. Effect of Permit.**

The Permittee is authorized to store, treat, and dispose hazardous waste in accordance with the conditions of this permit and in accordance with 40 CFR §262.34. Any storage, treatment, or disposal of hazardous waste by the Permittee at this facility that is not authorized by this permit or by 40 CFR §262.34, and for which a permit is required under Section 3005 of RCRA, is prohibited.

**I.B. Hold Harmless.**

The Permittee shall hold harmless and indemnify the United States, the Agency, the State of Oregon, the Department, and officers, employees, and agents of the United States or the State of Oregon from any claim, suit, or action arising from the activities of the Permittee or its contractors, agents, or employees under this permit.

The Permittee shall not, however, hold harmless and indemnify the above entities for any claim, suit or action against any of them arising from their own negligence.

**I.C. Personal and Property Rights.**

This permit does not convey any property rights of any sort, or any exclusive privilege, nor does this permit authorize any injury to persons or property or invasion of other private rights, or any infringement of State or local laws or regulations.

**I.D. Permit Actions.**

- I.D.(1) This permit may be modified, revoked and reissued, or terminated for cause by the Department as specified in 40 CFR §§270.41, 270.42, 270.43, and OAR 340 Divisions 105 and 106. For HSWA provisions that are not part of the state authorized program, the permit may be modified, revoked and reissued, or terminated for cause by the Agency as specified in 40 CFR §§270.41, 270.42, and 270.43.
- I.D.(2) The filing of a request for a permit modification, or revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance on the part of the Permittee shall not stay the applicability or enforceability of any permit condition.
- I.D.(3) Except as provided by specific language in this permit or except for the Director's and the Administrator's approval of a minor permit modification in accordance with 40 CFR §270.42, any approved modification or change in design or operation of this facility or any approved modification or change in a hazardous waste management practice covered by this permit must be administered as a major permit modification prior to such change taking place, in accordance with 40 CFR §270.41.

**I.E. Severability.**

- I.E.(1) The provisions of this permit are severable, and if any provision of this permit, or the application of any provision of this permit to any circumstance, is held invalid, the application of such provision to other circumstances and the remainder of this permit shall not be affected thereby. Invalidation of any state or federal statutory or regulatory provision which forms the basis for any condition of this permit does not affect the validity of any other state or federal statutory or regulatory basis for said condition.

If a contested permit condition is included in this permit under "Agency Authority", (see Table 1 of this permit), that permit condition, as well as any nonseverable conditions, shall be automatically stayed, in accordance with 40 CFR §124.16. If a contested permit condition is included under "Department Authority", (see Table 1 of this permit), that permit condition, as well as any nonseverable conditions, shall not be automatically stayed, but may be stayed at the discretion of the Director, in accordance with OAR 340-106-002. If a contested permit condition is included under "Concurrent Department/Agency Authority", (see Table 1 of this permit), that permit condition, as well as any nonseverable conditions, shall be automatically stayed under federal rules (40 CFR §124.16), but shall be stayed only at the discretion of the Director under state rules OAR 340-106-002.

A petition for review of any permit condition included in this permit under "Department Authority", (see Table 1 of this permit), must be submitted to the Department, in accordance with the Department's administrative procedures. A petition for review of any permit condition included in this permit under "Agency Authority", (see Table 1 of this permit), must be submitted to the Agency, in accordance with the Agency's administrative procedures. A petition for review of any permit condition included in this permit under "Concurrent Department/Agency Authority", (see Table 1 of this permit), must be submitted to both the Department and the Agency, in accordance with their respective administrative procedures.

- I.E.(2) In the event that a condition of this permit is stayed for any reason, the Permittee shall continue to comply with the related applicable and relevant interim status standards in 40 CFR Part 265 until final resolution of the stayed condition unless the Director or the Administrator determine that compliance with the related applicable and relevant interim status standards would be technologically incompatible with compliance with other conditions of this permit which have not been stayed.



**I.F. Duty to Comply.**

- I.F.(1) The Permittee shall comply with all conditions of this permit, except that the Permittee need not comply with the conditions of this permit to the extent and for the duration such noncompliance is authorized in an emergency permit (issued under 40 CFR §270.61 or OAR 340-105-061). Any permit noncompliance, except under the terms of an emergency permit, constitutes a violation of the applicable provision of Oregon state law and/or RCRA, as amended by HSWA, and is grounds for enforcement action, permit termination, modification or revocation and reissuance of the permit, or denial of a permit renewal application.
- I.F.(2) Compliance with the terms of this permit does not constitute a defense to any action brought under Sections 3007, 3008, 3013 and 7003 of RCRA (42 U.S.C. §§6934 and 6973), Section 106(a) of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA) [42 U.S.C. §9606(a)], as amended by the Superfund Amendments and Reauthorization Act of 1986, or any other federal or state law governing protection of public health or the environment from any imminent and substantial endangerment to human health or the environment.

However, compliance with the terms of this permit does constitute a defense to any action alleging failure to comply with the applicable standards upon which this permit is based.

**I.G. Duty to Reapply.**

If the Permittee wishes to continue an activity regulated by this permit after the expiration date of this permit, the Permittee must apply for and obtain a new permit, in accordance with 40 CFR §270.30(b). The Permittee shall submit such permit application at least 180 calendar days prior to the expiration date of this permit, in accordance with 40 CFR §270.10(h).

**I.H. Continuation of Expiring Permit.**

This permit and all conditions herein shall continue in force until the effective date of a new permit if the Permittee has submitted a timely, complete application (under 40 CFR §270 Subpart B and OAR Chapter 340 Division 105), and, through no fault of the Permittee, the Director, the Administrator, or the Commission does not issue a new permit under 40 CFR §124.15 on or before the expiration date of the previous permit. In accordance with 40 CFR §270.50, this permit shall be reviewed five years after the effective date and modified, as necessary, in accordance with 40 CFR §270.41.

**I.I. Need to Halt or Reduce Activity not a Defense.**

It shall not be a defense for the Permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

**I.J. Duty to Mitigate.**

In the event of noncompliance with this permit, the Permittee shall take all reasonable steps to minimize releases to the environment, and shall carry out such measures as are reasonable to prevent significant adverse impacts on human health or the environment.

**I.K. Proper Operation and Maintenance.**

The Permittee shall at all times operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the Permittee so as to achieve compliance with the conditions of this permit. Proper operation and maintenance includes effective performance, adequate funding, adequate operator staffing and training, and adequate laboratory and process controls, including appropriate quality assurance procedures. This provision requires the operation of back-up or auxiliary facilities or similar systems only when necessary to achieve compliance with the conditions of this permit.

**I.L. Duty to Provide Information.**

The Permittee shall furnish to the Director and the Administrator, within a reasonable time, any relevant information which the Director or Administrator may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. The Permittee shall also furnish to the Manager and Administrator, upon request, copies of records required to be kept by this permit.

**I.M. Inspection and Entry.**

The Permittee shall allow the Department or the Agency, or their authorized representatives, upon the presentation of credentials and other documents as may be required by law, to:

- I.M.(1) Enter at reasonable times upon the Permittee's premises where hazardous or solid waste management units or activities are located or conducted, or where records must be kept under the conditions of this permit;

- I.M.(2) Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;
- I.M.(3) Inspect at reasonable times any portion of the facility, equipment (including monitoring and control equipment), practices, or operations regulated or required under this permit; and
- I.M.(4) Sample or monitor, at reasonable times, for the purposes of assuring permit compliance or as otherwise authorized by RCRA or state law, any substances or parameters at any location.

**I.N. Monitoring and Records.**

- I.N.(1) Samples and measurements taken by the Permittee for the purpose of monitoring shall be representative of the monitored activity.
- I.N.(2) The Permittee shall retain records of all monitoring information, (including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation), copies of all reports required by this permit, the certification required by 40 CFR §264.73(b)(9), and records of all data used to complete the application for this permit, for a period of at least three years from the date of the sample, measurement, report, certification, or recording unless a longer retention period for certain information is required by other conditions of this permit. This three year period may be extended by the Director or the Administrator at any time by notification, in writing, to the Permittee. The Permittee shall maintain records from all groundwater monitoring wells and associated groundwater surface elevations for the active life of the facility and, for disposal units, for the active life of the facility and the post-closure care period.

I.N.(3) Records of monitoring information shall include:

I.N.(3)(a) The date, exact place, and time of sampling or measurements;

I.N.(3)(b) The name, title, and affiliation of the individual(s) who performed the sampling or measurements;

I.N.(3)(c) The date(s) analyses were performed;

I.N.(3)(d) The name, title, and affiliation of the individual(s) who performed the analyses;

I.N.(3)(e) The analytical techniques or methods used; and

I.N.(3)(f) The results of such analyses.

**I.O. Reporting Planned Changes.**

The Permittee shall give notice to the Director and the Administrator, as soon as possible, of any planned physical alterations or additions to the permitted facility.

**I.P. Certification of Construction or Modification.**

The Permittee may not commence storage, treatment, or disposal in a new hazardous waste management unit or in a modified portion of an existing unit until:

I.P.(1) The Permittee has submitted to the Manager and the Administrator by certified mail or hand delivery a letter signed by the Permittee and a registered professional engineer stating that the hazardous waste management unit has been constructed or modified in compliance with this permit; and

- I.P.(2)(a) The Inspector or the Administrator has inspected the modified or newly constructed hazardous waste management unit and has notified the Permittee in writing that he finds it is in compliance with the conditions of this permit; or
- I.P.(2)(b) Within 15 days of the date of submission of the letter in permit condition I.P.(1), the Permittee has not received notice from the Manager or the Administrator, by certified mail or hand delivery, a letter of his or her intent to inspect, prior inspection is waived and the Permittee may commence treatment, storage, or disposal of hazardous waste.

**I.Q. Anticipated Noncompliance.**

The Permittee shall give advance notice to the Manager and the Manager of any planned changes in the permitted facility or activity that might result in noncompliance with permit requirements.

**I.R. Transfer of Permit.**

This permit is personal to the Permittee and is nontransferable, in accordance with OAR 340-105-040(2).

**I.S. Monitoring Reports.**

The Permittee shall report monitoring results to the Director and the Administrator at the intervals required in specific conditions of this permit.

**I.T. Compliance Schedules.**

The Permittee shall submit reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule required by specific conditions of this permit to the Manager and the Administrator no later than 14 calendar days following each schedule date.

**I.U. Twenty-four Hour Reporting.**

I.U.(1) The Permittee shall verbally report to the Administrator and to the Manager or Inspector, any noncompliance with this permit that might endanger health or the environment, within 24 hours from the time the Permittee becomes aware of the noncompliance. The report shall include:

I.U.(1)(a) Information concerning release of any hazardous waste that might cause an endangerment to public drinking water supplies; and,

I.U.(1)(b) Any information of a release or discharge of hazardous waste or of a fire or explosion from the hazardous waste management facility, that might threaten human health or the environment.

I.U.(2) The description of the occurrence and its cause shall include:

I.U.(2)(a) Name, address, and telephone number of the owner or operator;

I.U.(2)(b) Name, address, and telephone number of the facility;

I.U.(2)(c) Date, time, and type of incident;

I.U.(2)(d) Name and quantity of material(s) involved;

- I.U.(2)(e) The extent of injuries, if any;
- I.U.(2)(f) An assessment of actual or potential hazards to the environment and human health outside the facility, where this is applicable; and,
- I.U.(2)(g) Estimated quantity and disposition of recovered material that resulted from the incident.
- I.U.(3) Within 5 calendar days of the time the Permittee becomes aware of noncompliance that might endanger human health or the environment, the Permittee shall provide to the Manager and the Administrator a written submission. The written submission shall contain a description of the noncompliance and its cause; the period of noncompliance including exact dates and times; the anticipated time noncompliance is expected to continue if the noncompliance has not been corrected; and steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance. The Manager and the Administrator may waive the five day written notice requirement in favor of a written report within fifteen days.

**I.V. Other Noncompliance.**

The Permittee shall report to the Manager and the Administrator all other instances of noncompliance not reported under Conditions I.S., I.T., and I.U. of this permit, at the time monitoring reports are submitted. The reports shall contain the applicable information listed in Condition I.U. of this permit. For purposes of this permit condition, the term "noncompliance" shall be defined as noncompliance with the conditions of this permit.



**I.W. Other Information.**

Whenever the Permittee becomes aware that it failed to submit any relevant facts in the permit application, or submitted incorrect information in the permit application or in any report to the Administrator and to the Manager or Inspector, the Permittee shall promptly submit such facts or corrected information to the appropriate persons.

**I.X. Signature and Certification.**

All applications, reports, or other information submitted to the Administrator or to the Director, Manager, or Inspector by the Permittee shall be signed and certified in accordance with 40 CFR §270.11.

**I.Y. Confidential Information.**

Any information submitted by the Permittee to the Administrator or to the Director, Manager, or Inspector may be claimed as confidential by the Permittee in accordance with the applicable provisions of OAR 340-100-003, 40 CFR Part 2, and 40 CFR §270.12.

**I.Z. Fees.**

The Permittee shall pay fees as required under ORS 466.160, 466.165, 466.587, and other state law and related regulations. This condition does not preclude the Permittee from challenging any future promulgation or adoption of a statute, rule, or administrative action imposing any fee on the Permittee.

## II. GENERAL FACILITY CONDITIONS

### II.A. Design and Operation of Facility.

- II.A.(1) The Permittee shall design, construct, maintain, and operate the facility to minimize the possibility of a fire, explosion, or any unplanned sudden or nonsudden release of hazardous waste constituents to air, soil, ground water, or surface water which could threaten human health or the environment.
- II.A.(2) The Permittee shall construct all future waste management units in accordance with the approved designs and specifications that are included in Attachments 12 through 26 of this permit, except for minor changes deemed necessary by the Permittee to facilitate proper construction of the units. Minor deviations from the approved designs or specifications necessary to accommodate proper construction must be noted on the as-built drawings and the rationale for those deviations must be provided in narrative form. After completion of construction of each future waste management unit, the Permittee shall submit final as-built drawings and the narrative report to the Manager and the Administrator as part of the construction certification document specified in permit condition I.P.(1).

### II.B. Required Notices.

- II.B.(1) The Permittee shall notify the Inspector and the Administrator in writing at least four weeks in advance of the date hazardous waste from a foreign source is expected to arrive at the facility. Notice of subsequent shipments of the same waste from the same foreign source is not required.

II.B.(2) When the Permittee is to receive hazardous waste from an off-site source (except where the Permittee is also the generator), it must inform the generator in writing that it has the appropriate permits for, and will accept the waste the generator is shipping. The Permittee must keep a copy of this written notice as part of the operating record in accordance with 40 CFR §264.73(b)(7).

II.C. General Waste Analysis.

II.C.(1) The Permittee shall follow the procedures of the Waste Analysis Plan, included as Attachment 2 of this permit, except that the following changes to Attachment 2 are hereby made:

II.C.(1)(a) Replace Section 5.1, page 30, paragraph 2, sentences 6 and 7, as follows:

"All samples from containers shall be analyzed as discrete samples, without compositing. After acceptance, all containerized liquid wastes are subjected to a LWCT prior to further treatment."

II.C.(1)(b) Section 4.0, page 14, add the following language:  
"The Permittee shall be fully responsible to ensure that the wastes received at the facility do not violate the provisions of the Land Disposal Restrictions rule as contained in 40 CFR Part 268. To the extent that modifications to the Permittee's Waste Analysis Plan are needed to comply with future self implementing provisions of 40 CFR Part 268, the Permittee must submit a permit modification request to the Administrator within 90 calendar days of the effective date of the self implementing provisions."

II.C.(1)(c) Revise Stabilization Evaluation Test, Page WAP-B-5, Item 3, last sentence, to read as follows:

"An additional 20% of reagent by reagent weight provides the mix ratio which will be used to stabilize incoming waste shipments."

II.C.(2) The Permittee shall maintain a copy of the latest approved Waste Analysis Plan, included as Attachment 2 of this permit, at the facility until the facility is fully closed and certified.

**II.D. Security Procedures.**

The Permittee shall comply with the Security Procedures as contained in Attachment 3 of this permit.

**II.E. Inspection Plan.**

II.E.(1) The Permittee shall follow the procedures of the approved Inspection Plan, included as Attachment 4 of this permit.

II.E.(2) The Permittee shall remedy any deterioration or malfunction discovered by an inspection as required by 40 CFR §264.15(c). Inspection reports shall be recorded and maintained as required by 40 CFR §264.15(d).

II.E.(3) The Permittee shall maintain a copy of the Inspection Plan, included as Attachment 4 of this permit, at the facility until the facility is fully closed and certified.

II.E.(4) The Permittee may make only the following changes to the Inspection Plan without first obtaining a permit modification:

- II.E.(4)(a) Upon certification of closure of an individual waste management unit, any portion of the Inspection Plan specific to the operation of that unit may be deleted from the Inspection Plan (Attachment 4 of this permit). The Permittee must notify the Inspector and the Administrator in writing within 15 calendar days of the date such portions of the Inspection Plan have been deleted. The Permittee may not otherwise delete inspection requirements from an inspection form without first obtaining a permit modification, in accordance with 40 CFR §270.41.
- II.E.(4)(b) The Permittee may add inspection requirements to an existing inspection form in cases where such additional requirements will result in a more comprehensive or detailed Inspection Plan. The Permittee must submit a copy of such a revised inspection form, accompanied by a narrative report or written explanation, to the Inspector and the Administrator within 15 calendar days of the date of the revision.
- II.E.(4)(c) The Permittee may create additional inspection forms to address inspection requirements for equivalent replacement equipment which must be routinely inspected. The Permittee must submit a copy of such a new inspection form, accompanied by a narrative report or written explanation, to the Inspector and the Administrator within 15 calendar days of the date the form is created or the date when equivalent equipment is placed in operation, which occurs first.

**II.F. Training Plan.**

- II.F.(1) The Permittee shall ensure that all personnel who handle hazardous waste are trained in hazardous waste management, safety and emergency procedures, as applicable to their job description, in accordance with the Permittee's Training Plan. These personnel shall be trained in accordance with the Training Plan as included in Attachment 5 of this permit and documentation of training shall be maintained as specified in Attachment 5.

II.F.(2) The Permittee shall maintain a copy of the Training Plan, included as Attachment 5 of this permit, at the facility until the facility is fully closed and certified.

**II.G. Hazards Prevention.**

The Permittee shall follow the procedures outlined in "Hazards Prevention", included as Attachment 6 of this permit.

**II.H. Contingency Plan.**

The Permittee shall follow the procedures outlined in the Contingency Plan, included as Attachment 7 of this permit.

**II.I. Manifest System, Recordkeeping, and Reporting.**

- II.I.(1)(a) The Permittee shall follow the procedures for using the manifest system and identifying and resolving manifest discrepancies in accordance with 40 CFR §§264.71, 264.72, and 270.30(1)(7) and the Waste Analysis Plan, included as Attachment 2 of this permit.
- II.I.(1)(b) The Permittee shall submit an unmanifested waste report to the Manager, in accordance with 40 CFR §§264.76 and 270.30(1)(8), within fifteen calendar days of receipt of unmanifested waste.
- II.I.(2) The Permittee shall maintain a written operating record at the facility in accordance with 40 CFR §264.73(a) for all records identified in 40 CFR §264.73(b)(1) through (b)(14).

- II.I.(3) The Permittee shall retain all hazardous waste management records, including data collected in accordance with procedures of the Response Action Plans, and make such records available, at reasonable times, for inspection to the Inspector or the Administrator, in accordance with 40 CFR §264.74(a).
- II.I.(4) The retention period for all records required by this permit is extended automatically during the course of any unresolved enforcement action regarding the Permittee or as directed by the Manager or the Administrator, in accordance with 40 CFR §264.74(b).
- II.I.(5) The Permittee shall submit a survey plat of waste disposal locations in accordance with 40 CFR §264.116 to the local land authority by the date of certification of closure of each landfill unit at the facility.
- II.I.(6) The Permittee shall submit a monthly report covering facility activities to the Manager, in accordance with OAR 340-104-075. The Permittee shall submit a biennial report covering facility activities to the Manager and the Administrator in accordance with 40 CFR §§262.41, 264.75, and 270.30(1)(9).
- II.I.(7) The Permittee shall submit additional reports to the Manager and the Administrator, in accordance with 40 CFR §264.77 as required by 40 CFR Part 264 Subparts F, K, and N.
- II.I.(8) All reports, notifications, applications, or other materials required to be submitted to the EPA Administrator or Regional Administrator shall be submitted to the Chief, Waste Management Branch at the EPA address shown on page one of this permit.

**II.J. Closure.**

- II.J.(1) The Permittee shall meet the general closure performance standard as specified in 40 CFR §264.111 during closure of all hazardous waste management units and the facility. Compliance with 40 CFR §264.111 shall require closure of each waste management unit in accordance with the Closure Plan included as Attachment 8, Section 1 (including Appendices A, B, and C) of this permit.
- II.J.(2) Final cover design for landfill units shall be as specified in Closure Cover Design Details, included as Attachment 9 of this permit. Specifically, the cover design shall be constructed as follows:
- II.J.(2)(a) Landfill units L-1, L-3, L-5, and L-6 shall be capped in accordance with Attachment 9, Exhibit 20A of this permit. If landfill units L-1, L-3, L-5, and L-6 are certified as closed in accordance with an approved interim status closure plan (40 CFR Part 265), prior to the effective date of this permit, then closure in accordance with this permit (Attachment 8 and Attachment 9, Exhibit 20A) shall not be required.
- II.J.(2)(b) Landfill units L-7, L-8, L-9, L-10, and L-12 shall be capped in accordance with Attachment 9, Exhibit 20B of this permit.
- II.J.(2)(c) Landfill unit L-13 shall be capped in accordance with Attachment 9, Exhibit 20C of this permit.
- II.J.(3) For all landfill units, minor deviations from the permitted closure designs, specifications, or procedures necessary to accommodate proper closure must be noted on the as-built drawings and the rationale for those deviations in designs, specifications, or procedures must be provided in narrative form with the closure certification statements. Within 60 calendar days after completion of closure of each landfill unit, the Permittee shall submit the final as-built drawings of the closed unit, the narrative report and the certification statements to the Manager.



- II.J.(4) For all waste management units other than landfills, minor deviations from the permitted closure procedures necessary to accommodate proper closure must be described in a narrative form with the closure certification statements. The Permittee shall describe the rationale for implementing minor changes as part of this narrative report. Within 60 calendar days after completion of closure of each waste management unit, other than landfill units, the Permittee shall submit the certification statements and narrative report to the Manager.
- II.J.(5) The Permittee shall amend the Closure Plan in accordance with 40 CFR §264.112(c) whenever necessary.
- II.J.(6) The Permittee shall notify the Manager at least 60 calendar days prior to the date it expects to begin closure of any surface impoundment or landfill unit and at least 45 calendar days prior to the date it expects to begin closure of any tanks or container storage units.
- II.J.(7) The Permittee shall close all waste management units within the time limits specified in the Closure Plan, Attachment 8, Table 1-11, column 3 [Length of Time to Close (days)] of this permit. Closure dates for individual waste management units, which are specified in other conditions of this permit, shall supercede any estimated dates for closure, as specified in Table 1-11.
- II.J.(8) The Permittee shall decontaminate or dispose of all facility equipment as specified in the Closure Plan (Attachment 8, Appendix B of this permit).
- II.J.(9) The Permittee shall provide certification statements that each unit at the facility has been closed in accordance with the applicable specifications in the Closure Plan (Attachment 8, Section 1 of this permit), as required by 40 CFR §264.115.

II.J.(10) The Permittee shall submit a survey plat indicating the location and dimensions of landfill units or other hazardous waste disposal units with respect to permanently surveyed benchmarks, to the local land use authority and to the Manager in accordance with 40 CFR §264.116.

II.J.(11) The Permittee shall follow the procedures outlined in the Closure Plan [Attachment 8, Appendix A of this permit, as modified in permit conditions II.J.(12)(a) through II.J.(12)(c)] for all soil sampling and analysis when closing any waste management unit. The Permittee shall modify the sampling grid procedure described in Appendix A, as appropriate and necessary, when sampling soils at or near the perimeter of buildings, concrete structures, or in other similar situations.

II.J.(12) Attachment 8, Appendix A of this permit is modified, as follows:

II.J.(12)(a) Appendix A, page A-2, add the following language --

"In addition to the random sampling grid, at least one sample shall be obtained from each area of known contamination or obvious visual contamination. Samples from such areas shall not be composited with any other samples for analyses."

II.J.(12)(b) Appendix A, page A-2, add the following language --

"If analysis of any background sample indicates that it is an obvious outlier (i.e., distinctly higher concentrations of hazardous constituent(s) than contained in other background samples), then the Permittee may delete that sample from the background set and may replace it with a new background sample or the Permittee may demonstrate that the outlier sample is a valid background sample, representative of natural background concentrations for the constituent(s) in question. All background values for each parameter shall be subject to review and acceptance or rejection by the Department before such values are used to determine the clean up standard at each unit."

II.J.(12)(c) Appendix A, page A-3 (Table A-1), change Table to indicate --

"Final confirmation of the absence of contamination of hazardous constituents in soil shall be demonstrated by analysis for hazardous constituents as contained in 40 CFR Part 261 Appendix VIII (for which analytical procedures are available), rather than the constituents contained in the priority pollutant list."

II.J.(13) In the event that any waste management unit, other than a landfill unit, cannot be "clean closed" by removing hazardous waste, hazardous constituents, contaminated subsoil, and any contaminated groundwater as specified in section II.J. of this permit, the Permittee shall revise the facility post-closure plan to include a post-closure plan for that unit. The Permittee shall submit the post-closure plan for that unit to the Director, as a permit modification request, within 90 calendar days of the date that the Manager notifies the Permittee, in writing, that the unit must be closed as a landfill, in accordance with 40 CFR §264.118(a).

II.J.(14)(a) All waste management unit closures being conducted under an approved interim status (40 CFR Part 265) closure plan must be certified as closed, in accordance with 40 CFR §265.115, prior to the effective date of this permit. If interim status closure certification statements have not been received by the Manager and Administrator prior to the effective date of this permit and if a closure plan for that unit has not been included in Attachment 8 of this permit, the Permittee shall submit a revised closure plan (and post-closure plan, if applicable) for that waste management unit to the Director and the Administrator within 30 calendar days of the effective date of this permit. The revised closure plan (and post-closure plan, if applicable) shall be prepared in accordance with 40 CFR Part 264 Subpart G and shall be submitted as a permit modification request.

Any necessary modifications to the closure-cost estimate or post-closure plan shall be included with the permit modification request. The schedule for closure of that unit, as specified in Attachment 8, Table 1-11 [Length of Time to Close (days)], shall be initiated immediately upon approval of the 40 CFR Part 264 closure plan and the permit modification.

- II.J.(14)(b) Within 120 calendar days after the effective date of this permit, the Permittee shall submit, to the Administrator, an equivalency demonstration that the land treatment unit and all surface impoundments which were certified as closed under approved interim status closure plans prior to the effective date of this permit, were closed in a manner equivalent to the requirements of 40 CFR §§264.228 and 264.280(e). This demonstration must be made in accordance with 40 CFR §270.1(c)(5) and (6), as amended on December 1, 1987.

If the Agency determines that the equivalency demonstration fails to document that clean closure of any of these units was not equivalent to 40 CFR Part 264 standards, the Administrator reserves the right to require a post-closure permit, including corrective action, under 40 CFR Part 264, for such unit(s).

- II.J.(15) Within 180 calendar days before the expected date of final closure of the facility, the Permittee shall prepare and submit, to the Director and the Administrator, a plan for verification that soil in areas within the active portion of the site, but outside the waste management units, do not contain significant quantities of hazardous constituents or hazardous waste. This plan shall be submitted as a permit modification request, in accordance with 40 CFR §270.41. This plan, when approved as a permit modification, shall be implemented by the Permittee upon closure of the final waste management unit. If significant contamination is found in the soil in the areas mentioned above, the Permittee shall, within 90 calendar days, submit a plan for corrective action.

**II.K. Cost Estimate for Facility Closure.**

- II.K.(1) The Permittee shall comply with the requirements of 40 CFR §264.142(a). The Permittee shall maintain a current closure cost estimate for each individual waste management unit. These costs shall be summarized, by the Permittee, for final closure of the entire facility.
- II.K.(2) The Permittee shall adjust the closure cost estimate for inflation on an annual basis, in accordance with 40 CFR §264.142(b).
- II.K.(3) During the active life of the facility, the Permittee shall submit a revised closure cost estimate to the Manager within 30 calendar days of an approved modification to the closure plan, if such modification results in an increase in the closure cost estimate, in accordance with 40 CFR §264.142(c).
- II.K.(4) During the operating life of the facility, the Permittee shall keep a copy of the latest closure cost estimate and adjustment made at the facility in accordance with 40 CFR §264.142(a), (b), and (c).
- II.K.(5) The Permittee shall maintain an updated summary of current closure costs for the entire facility closure based on the waste management units that have received RCRA waste, but have not yet been certified as closed and have not been released from the financial responsibility requirements as specified in permit condition II.N., (i.e., active units).
- II.K.(6) Prior to placement of waste in any new waste management unit, the Permittee must amend, as necessary, the summary of current closure costs to reflect the estimated closure cost of that new unit. Such amended closure costs shall be annually adjusted for inflation, as required by 40 CFR §264.142(b)]. [See permit condition II.N.(2)].

II.K.(7) Upon closure certification of any waste management unit, in accordance with 40 CFR §264.115, and after the Director has released the Permittee from the financial responsibility requirements for that unit as specified in permit condition II.N., the Permittee may adjust the summary of current closure costs to reflect the closure cost of that unit. The Permittee shall submit a current version of the closure cost estimate for the facility, indicating cost estimates for each remaining unit to be closed, to the Manager, along with the closure certification statements for each closed unit.

**II.L. Post-closure Care.**

II.L.(1) The Permittee shall comply with the approved Postclosure Plan, included as Attachment 8, Section 2, of this permit. In addition, the Permittee shall comply with all provisions of 40 CFR §§264.117, 264.118, 264.119, and 264.120.

II.L.(2) Except as the period may be shortened or extended, as provided in 40 CFR §264.117(a)(2), the period of post-closure care for each landfill unit and any other unit, as applicable, shall be 30 years, to commence upon completion of closure of the unit, except as provided by permit condition IX.G.(2).

**II.M. Cost Estimate for Post-closure Care.**

II.M.(1) The Permittee shall comply with 40 CFR §264.144(a). The Permittee shall maintain a current post-closure cost estimate for each post-closure activity.

II.M.(2) The Permittee shall adjust the post-closure cost estimate for inflation on an annual basis, in accordance with 40 CFR §264.144(b).

II.M.(3) During the active life of the facility, the Permittee shall submit a revised post-closure cost estimate to the Manager and the Administrator within 30 calendar days of approved modification to the post-closure plan, if such modification results in an increase in the post-closure cost estimate, in accordance with 40 CFR §264.144(c).

II.M.(4) During the operating life of the facility, the Permittee shall keep a copy of the latest post-closure cost estimate and adjustments prepared, at the facility in accordance with 40 CFR §§264.144(a), (b), and (c).

II.M.(5) The Permittee shall immediately amend its post-closure cost estimates, as contained in the document "Closure and Postclosure Plans -- Cost Estimates, Appendix C, Table C-2", dated June 1987, as follows, to reflect the costs associated with the increased number of required groundwater monitoring wells:

Line 1: Change "39 wells" to "66 wells";  
Line 3: Change "2" to "46 wells semi-annually & 20 wells annually";  
Line 4: Change "\$54,000" to "\$78,400";  
Line 6: Change "\$1,638,000" to "\$2,352,000";  
Line 8: Change "\$87,750" to "\$148,500";  
Line 9: Change "\$10,000" to "\$17,000"; and,  
Line 10 Change "\$1,779,750" to "\$2,517,500 (total of lines 6+8+9)".

Funding of the post-closure financial assurance mechanism shall be based on these revised costs.

II.M.(6) The Permittee shall immediately amend its post-closure cost estimates, as contained in the document "Closure and Postclosure Plans -- Cost Estimates, Table 4-1", dated June 1987, as follows, to reflect the costs associated with the increased number of required groundwater monitoring wells:

Line 2: Change "\$1,779,750" to "\$2,517,500"; and,  
Total: Change "\$2,167,655" to "\$2,905,415".

Funding of the post-closure financial assurance mechanism shall be based on these revised costs.

**II.N. Financial Assurance for Facility Closure.**

II.N.(1) The Permittee shall comply with 40 CFR §264.143, as amended by OAR 340-104-143, by providing documentation of financial assurance, as required by 40 CFR §264.151, as amended by OAR 340-104-151, in the amount of the cost estimates required by permit condition II.K.(1).

II.N.(2) Prior to placement of waste in any new waste management unit, the Permittee shall update the closure financial assurance mechanism, as necessary, and demonstrate that an adequately funded financial assurance mechanism for closure of the facility, including the new unit, is in effect. A copy of the updated financial assurance mechanism shall be submitted to the Director before waste is placed in the new unit. [See permit condition II.K.(6)].

II.N.(3) Changes in financial assurance mechanisms must be approved by the Director pursuant to 40 CFR §264.143.



**II.O. Financial Assurance for Facility Post-closure.**

- II.O.(1) The Permittee shall comply with 40 CFR §264.145, as amended by OAR 340-104-145, or 40 CFR §264.146 by providing documentation of financial assurance, as required by 40 CFR §264.151, as amended by OAR 340-104-151, in the amount of the cost estimates required by permit condition II.M.(1).
- II.O.(2) The Permittee shall provide to the Department financial assurance in one of the forms selected by the Permittee from those allowed in 40 CFR §264.143 and in the amount of \$408,367 to provide for post-closure remedial action as required by ORS 466.150(2)(f). This amount of credit shall be increased annually by 7.5 percent per annum. This financial assurance shall be provided in the manner cited in 40 CFR §264.143(d), (including a standby trust fund), and by replacing the concept of "closure" with "post-closure remedial action".
- II.O.(3) Changes in financial assurance mechanisms must be approved by the Director and, with the exception of permit condition II.O.(2), also by the Administrator pursuant to 40 CFR §264.145.

**II.P. Liability Requirements.**

- II.P.(1) The Permittee shall comply with the requirements of 40 CFR §264.147(a), as amended by OAR 340-104-147, and the documentation requirements of 40 CFR §264.151, as amended by OAR 340-104-151, including the requirements to have and maintain liability coverage for sudden accidental occurrences in the amount of at least \$1 million per occurrence with an annual aggregate of at least \$2 million, exclusive of legal defense costs.

II.P.(2) The Permittee shall comply with the requirements of 40 CFR §264.147(b), as amended by OAR 340-104-147, and the documentation requirements of 40 CFR §264.151, as amended by OAR 340-104-151, including the requirements to have and maintain liability coverage for nonsudden accidental occurrences in the amount of at least \$3 million per occurrence with an annual aggregate of at least \$6 million, exclusive of legal defense costs.

**II.Q. Incapacity of Owners or Operators Guarantors, or Financial Institutions.**

The Permittee shall comply with 40 CFR §264.148.

### III. CONTAINER STORAGE

#### III.A. Design and Operation.

- III.A.(1)(a) In storage units S-1, S-4, and the Main Container Storage Unit, the Permittee may store any containerized wastes listed on the Part A permit application, included as Attachment 11 of this permit, except as provided by permit conditions III.F.(1), III.F.(2), and III.F.(3). The Permittee shall not store containerized water reactive wastes in these units.
- III.A.(1)(b) In storage units S-8A, S-8B, and the Reactive Solids Container Storage Unit, the Permittee may store containerized water reactive wastes or other compatible containerized wastes, except as provided by permit conditions III.F.(1), III.F.(2), and III.F.(3).
- III.A.(1)(c) The Permittee shall not store wastes listed in Attachment 11, Table 1-2 in any container storage area.
- III.A.(2) The quantity of containerized waste stored in each designated storage unit shall be limited by the design capacity of that unit, as specified in "Container Storage", included as Attachment 12 of this permit.
- III.A.(3) The Permittee shall store containerized waste in the manner described in Attachment 12 of this permit, except as otherwise specified in this section of the permit. Compliance with the storage operation procedures outlined in Attachment 12 and permit condition II.A.(1) shall constitute compliance with the following requirements of 40 CFR Part 264:

- §264.171 Condition of containers;
- §264.172 Compatibility with waste containers;
- §264.173 Management of containers;
- §264.174 Inspections
- §264.176 Special requirements for ignitable or reactive wastes; and
- §264.177 Special requirements for incompatible wastes.

III.A.(4) The Permittee shall be allowed to store or treat hazardous waste in containers in accordance with 40 CFR §262.34.

**III.B. Inspections.**

The Permittee shall store all containers of RCRA waste on a single tier, (i.e., no stacking), at all container storage units, except that small containers that are suitable for stacking (e.g., boxes or crates) may be stacked to a reasonable level, (not to exceed 5 feet in height), provided the stack is stable and there is no apparent hazard of such containers tipping or falling and provided that inspection of such containers is not inhibited.

The Permittee shall, immediately upon request from the Inspector or the Administrator, reposition any container, as necessary, to make the label on that container visible from the aisle for the purpose of inspection.

**III.C. Aisle Space.**

The Permittee shall maintain a minimum of 2.5 feet of aisle space at all container storage units at the facility. Maintenance of the specified aisle space shall constitute compliance with 40 CFR §264.35.

**III.D. Containment.**

III.D.(1) The Permittee shall store all containerized wastes in storage units S-8A and S-8B on pallets, or equivalent apparatus, so that containers do not come in contact with the soil during storage. The Permittee shall store containers in a manner that minimizes the potential for container deterioration.

III.D.(2) Container storage of liquid wastes in the Main Container Storage Unit or the Reactive Solids Container Storage Unit, in the manner specified in Attachment 12, shall constitute compliance with 40 CFR §264.175(b). Container storage of nonliquid wastes in any of the designated container storage units, in the manner specified in Attachment 12, shall constitute compliance with 40 CFR §264.175(c).

**III.E. Special Requirements for Reactive Wastes.**

The Permittee shall provide temporary cover for all reactive solid containerized wastes stored in units S-8A and S-8B. This temporary cover may be in the form of any structure, tarp, or other device that serves to prevent precipitation from accumulating on the tops of containers. All containers shall be covered at all times, except when containers are being removed, rearranged, inspected or otherwise managed as part of routine operation.

**III.F. Schedule of Compliance.**

III.F.(1) Any RCRA wastes stored in containers after 180 calendar days from the effective date of this permit, other than containerized solid waste stored in units S-1 and S-4, shall be stored in either the Main Container Storage Unit or the Reactive Solids Container Storage Unit, in accordance with the operating procedures for these units which are specified in Attachment 12 of this permit.

III.F.(2) Within 180 calendar days days after the effective date of this permit, the Permittee shall remove all containerized wastes from storage areas S-8A and S-8B and commence closure of these units. Closure must be completed within 330 calendar days after the effective date of this permit, in accordance with the schedule specified in Attachment 8 of this permit. The procedures for closure of these units shall be in accordance with Attachment 8 and Section II.J. of this permit.

III.F.(3) If the Permittee elects to construct the Main Container Storage Unit and/or the Reactive Solids Container Storage Unit, construction shall be in accordance with the designs and specifications contained in Attachment 12 of this permit. The Permittee shall submit all final as-built drawings and narrative reports in accordance with permit condition II.A.(2). If the Permittee elects to not construct the Main Container Storage and/or the Reactive Solids Container Storage Unit, then storage of containerized waste, other than containerized solid waste in units S-1 and S-4, shall be prohibited after 180 calendar days from the effective date of this permit, except as provided by 40 CFR §262.34.

### **III.G. Closure.**

The Permittee shall close all container storage units in accordance with the applicable sections of Attachment 8 (Closure Plan) and Section II.J. of this permit.

#### IV. TANK STORAGE AND TREATMENT

##### IV.A. Applicability of Rules.

IV.A.(1) The Permittee shall comply with the regulations pertaining to hazardous waste tanks, as published in the Federal Register on July 14, 1986.

IV.A.(2) The Permittee shall be allowed to store or treat hazardous waste generated onsite in tanks in accordance with 40 CFR §262.34.

##### IV.B. Bulk Liquid Storage Facility.

IV.B.(1) This condition applies to all waste received from offsite. This condition does not apply to wastes generated onsite which are subject to and managed in accordance with 40 CFR §262.34. If the Permittee fails to comply with 40 CFR §262.34, the 3010 tanks shall immediately become subject to this permit.

The Bulk Liquid Storage Facility shall consist of four existing 6,450 gallon polyolefin tanks. These tanks shall be designated as T-30-1, T-30-2, T-30-3, and T-30-4 (or collectively, as the "3010 tanks") in "Bulk Liquid Storage", included as Attachment 13 of this permit. Reference to the Bulk Liquid Storage Facility shall also include associated piping, appurtenances, and the secondary containment structure for the "3010 tanks". The design of the Bulk Liquid Storage Facility shall be as described in Attachment 13 and as specified in Figures D.3-2 and D.3-3 of Attachment 13.

IV.B.(2) This condition applies to all waste received from offsite. This condition does not apply to wastes generated onsite which are subject to and managed in accordance with 40 CFR §262.34. If the Permittee fails to comply with 40 CFR §262.34, the 3010 tanks shall immediately become subject to this permit.

The Permittee shall install an activated carbon filtration system to the vents of the 3010 tanks. A manifold system may be used to connect the vents from each of the tanks in order to treat vapors from all of the tanks with a single filter. The activated carbon filtration system shall be equivalent to either a Calgon VentSorb or Calgon High Flow VentSorb Canister system. The Permittee shall replace the activated carbon filtration system in accordance with manufacturer's recommendations or when analytical results indicate that the system has become saturated or otherwise ineffective. This filtration system shall be installed and fully operational within 180 calendar days after the effective date of this permit or within 180 calendar days after the Permittee ceases to use the 3010 tanks to store or to treat hazardous waste in accordance with 40 CFR §262.34, whichever is later.

Upon completion of construction, the as-built drawings, a narrative report and the construction certification document shall be submitted to the Manager and the Administrator in accordance with permit condition II.A.(2).

- IV.B.(3) This condition applies to all waste received from offsite. This condition does not apply to wastes generated onsite which are subject to and managed in accordance with 40 CFR §262.34. If the Permittee fails to comply with 40 CFR §262.34, the 3010 tanks shall immediately become subject to this permit.

The Permittee may store any of the RCRA wastes, in liquid form, listed on the Part A permit application, included as Attachment 11 of this permit, except that ignitable wastes, reactive wastes, wastes listed in Attachment 13, Table D.3-3 with an M, U, or N rating, and the wastes listed in Attachment 11, Table 1-2 shall not be stored at the Bulk Liquid Storage Facility. Additionally, if the waste is incompatible with any waste already in a tank, based on compatibility assessment as specified in the Waste Analysis Plan, Attachment 2 of this permit, such waste shall not be stored in that tank.



IV.B.(4) This condition applies to all waste received from offsite. This condition does not apply to wastes generated onsite which are subject to and managed in accordance with 40 CFR §262.34. If the Permittee fails to comply with 40 CFR §262.34, the 3010 tanks shall immediately become subject to this permit.

The Permittee shall operate the Bulk Liquid Storage Facility in accordance with the procedures specified in Attachment 13 and in accordance with permit condition II.A.(1). Additionally, the Permittee shall comply with all applicable sections of Attachment 2 (Waste Analysis Plan), Attachment 4 (Inspection Plan), and Attachment 7 (Contingency Plan).

IV.B.(5) This condition applies to all waste received from offsite. This condition does not apply to wastes generated onsite which are subject to and managed in accordance with 40 CFR §262.34. If the Permittee fails to comply with 40 CFR §262.34, the 3010 tanks shall immediately become subject to this permit.

The Permittee shall maintain at least one foot of freeboard (headspace) in the Bulk Liquid Storage Facility tanks at all times, but in no case shall liquid be allowed to rise above the top of the level indicator which is shown as Item 3 in Attachment 13 Figure D.3-3.

#### **IV.C. Laboratory Holding Tank.**

IV.C.(1) This condition does not apply to wastes generated onsite which are subject to and managed in accordance with 40 CFR §262.34. If the Permittee fails to comply with 40 CFR §262.34, the Laboratory Holding Tank shall immediately become subject to this permit.

The Laboratory Holding Tank shall consist of one existing underground 1,050 gallon polyethylene tank, designated as T-L-1 in "Bulk Liquid Storage", included as Attachment 13 of this permit. Reference to the Laboratory Holding Tank shall also include all associated piping, appurtenances, and the proposed secondary containment system. The design of the Laboratory Holding Tank shall be as described in Attachment 13 and as specified in Figures D.3-4 and D.3-5 of Attachment 13.

- IV.C.(2) This condition does not apply to wastes generated onsite which are subject to and managed in accordance with 40 CFR §262.34. If the Permittee fails to comply with 40 CFR §262.34, the Laboratory Holding Tank shall immediately become subject to this permit.

The Permittee may store any of the RCRA wastes, in liquid form, listed on the Part A permit application, included as Attachment 11 of this permit, except that strong oxidizing agents, off-specification or outdated reagents, and wastes listed in Attachment 11, Table 1-2 shall not be stored in the Laboratory Holding Tank. Additionally, if a laboratory waste is incompatible with other laboratory waste in the tank, based on compatibility assessment as specified in the Waste Analysis Plan, Attachment 2 of this permit, such waste shall not be stored in the Laboratory Holding Tank.

- IV.C.(3) This condition does not apply to wastes generated onsite which are subject to and managed in accordance with 40 CFR §262.34. If the Permittee fails to comply with 40 CFR §262.34, the Laboratory Holding Tank shall immediately become subject to this permit.

The Permittee shall operate the Laboratory Holding Tank in accordance with the procedures specified in Attachment 13 and in accordance with permit condition II.A.(1). Additionally, the Permittee shall comply with all applicable sections of Attachment 2 (Waste Analysis Plan), Attachment 4 (Inspection Plan), and Attachment 7 (Contingency Plan).

- IV.C.(4) This condition does not apply to wastes generated onsite which are subject to and managed in accordance with 40 CFR §262.34. If the Permittee fails to comply with 40 CFR §262.34, the Laboratory Holding Tank shall immediately become subject to this permit.

The Permittee shall maintain at least six inches of freeboard (headspace) in the Laboratory Holding Tank at all times. This distance (six inches) shall be measured downward from the bottom of the overflow drain pipe, which is indicated as Item 2 in Attachment 13, Figure D.3-5. The Permittee shall set the liquid level switch and alarm system to be activated so that the specified freeboard (headspace) limit is not exceeded.

- IV.C.(5) This condition does not apply to wastes generated onsite which are subject to and managed in accordance with 40 CFR §262.34. If the Permittee fails to comply with 40 CFR §262.34, the Laboratory Holding Tank shall immediately become subject to this permit.

The Permittee shall construct the secondary containment structure for the Laboratory Holding Tank, as required by permit condition IV.C.(1). This structure shall be installed and fully operational within the schedule required by 40 CFR Part 264 Subpart J. Upon completion of construction, the as-built drawings, a narrative report and the construction certification document shall be submitted to the Manager and the Administrator in accordance with permit condition II.A.(2).

**Note:** Due to the nature of this construction modification (adding secondary containment to an existing tank), the Permittee shall not be required to comply with permit condition I.P. and, thereby, this tank may be placed back into service immediately upon completion of construction. The provision of secondary containment for this tank is a regulatory requirement, regardless of whether the tank is covered under this permit or covered under 40 CFR §262.34.

**IV.D. Stabilization Unit Tanks.**

- IV.D.(1) The proposed Stabilization Unit shall consist of three inground steel tanks, with a capacity of approximately 45,000 gallons each. The design of each tank and the secondary containment structure shall be as described in Attachment 14 and as specified in Figures D.4-2 and D.4-3 of Attachment 14.
- IV.D.(2) The Permittee may treat any of the RCRA wastes which are listed on the Part A permit application, included as Attachment 11 of this permit, except that the wastes listed in Attachment 11, Table 1-2 shall not be treated in the Stabilization Unit tanks. Additionally, if any waste is water reactive, corrosive (as defined by 40 CFR §261.22), or incompatible with other wastes already in the tank, based on the compatibility assessment as specified in the Waste Analysis Plan, Attachment 2 of this permit, such waste shall not be placed in that tank.
- IV.D.(3) The Permittee shall operate the Stabilization Unit tanks in accordance with the procedures specified in Attachment 14 and in accordance with permit condition II.A.(1). Additionally, the Permittee shall comply with all applicable sections of Attachment 2 (Waste Analysis Plan), Attachment 4 (Inspection Plan), and Attachment 7 (Contingency Plan).
- IV.D.(4) The Permittee shall maintain at least two feet of freeboard in the Stabilization Unit tanks at all times. Waste in the unit, other than residue or stain on the inside of the tank walls, shall not exceed the two foot freeboard requirement, except as may be necessary during the actual mixing process. Residue or stain on the inside of the tank walls above the two foot freeboard limit shall not, in itself, result in a freeboard violation.

- IV.D.(5)(a) The Permittee shall construct the Stabilization Unit tanks, as required by permit condition IV.D.(1). The tanks shall be installed and fully operational before any off-site waste accepted for the purpose of stabilization at this facility is stabilized at the facility. If the Stabilization Unit tanks are constructed, upon completion of construction, the as-built drawings, a narrative report and the construction certification document shall be submitted to the Manager and the Administrator in accordance with permit conditions II.A.(2) and I.P.(1). From the time the Stabilization Unit tanks are constructed and operational, all stabilization processes which are conducted at the facility must be conducted in these tanks, including any stabilization of unmanifested free liquids received at the facility.
- IV.D.(5)(b) If the Permittee elects to not construct the Stabilization Unit tanks, then permit conditions IV.D.(1) through IV.D.(5) shall have no effect on this permit. If the Stabilization Unit tanks are not constructed, then the Permittee shall not accept wastes from off-site sources for the purpose of stabilization at this facility. The Permittee may, however, stabilize containerized solid waste and bulk solid waste, within the containment vessels, when such vessels contain unmanifested free liquids, provided that the waste was not accepted from an off-site source for the purpose of stabilization at this facility.

**IV.E. Reactive Solids Hydrolysis Unit Tanks.**

- IV.E.(1) The proposed Reactive Solids Hydrolysis Unit shall consist of three inground steel tanks, with a capacity of approximately 45,000 gallons each. The design of each tank and the secondary containment structure shall be as described in Attachment 15 and as specified in Figures D.5-4 and D.5-5 of Attachment 15.

- IV.E.(2) The Permittee may treat any water reactive wastes which are not listed in Attachment 11, Table 1-2, in the Reactive Solids Hydrolysis tanks. Additionally, if any waste, or the reaction product or residue of the treatment of such waste, is corrosive (as defined by 40 CFR §261.22), or incompatible with other wastes already in the tank, based on the compatibility assessment as specified in the Waste Analysis Plan, Attachment 2 of this permit, such waste shall not be placed in that tank.
- IV.E.(3) The Permittee shall operate the Reactive Solids Hydrolysis tanks in accordance with the procedures specified in Attachment 15 and in accordance with permit condition II.A.(1) and 40 CFR §264.17. Additionally, the Permittee shall comply with all applicable sections of Attachment 2 (Waste Analysis Plan), Attachment 4 (Inspection Plan), and Attachment 7 (Contingency Plan).
- IV.E.(4) The Permittee shall maintain at least two feet of freeboard in the Reactive Solids Hydrolysis tanks at all times. Waste in the unit, other than residue or stain on the inside of the tank walls, shall not exceed the two foot freeboard requirement, except as may be necessary during the actual mixing process. Residue or stain on the inside of the tank walls above the two foot freeboard limit shall not, in itself, result in a freeboard violation.
- IV.E.(5) Prior to placement of any sludge or hydrolyzed solid material from the reactive solids hydrolysis tanks into a landfill unit, the Permittee shall follow the stabilization and analyses procedures outlined in Attachments 2 and 14 to ensure that the sludge has been properly stabilized. The sludge or hydrolyzed solid material may be stabilized in either the Stabilization Unit tanks [as described in permit condition IV.D.(1)] or in the Reactive Solids Hydrolysis tanks.

- IV.E.(6) (a) Any reactive solid wastes that are treated after November 8, 1988 must be treated in the Reactive Solids Hydrolysis Unit tanks. If the Permittee elects to construct the Reactive Solids Hydrolysis Unit tanks, construction shall be as specified in permit condition IV.E.(1). If the Reactive Solids Hydrolysis Unit tanks are constructed, upon completion of construction, the as-built drawings, a narrative report and the construction certification document shall be submitted to the Manager and the Administrator in accordance with permit conditions II.A.(2) and I.P.(1).
- IV.E.(6) (b) If the Permittee elects to not construct the Reactive Solids Hydrolysis Unit tanks, then permit conditions IV.E.(1) through IV.E.(5) shall have no effect on this permit and the Permittee shall be prohibited from accepting reactive solids waste streams for hydrolysis at the facility after the reactive solids surface impoundments are removed from service or by November 8, 1988, whichever comes first.

**IV.F. Truck Wash Tank System.**

- IV.F.(1) The existing Truck Wash and Sludge Settling Tank (Truck Wash Tank System) shall consist of two concrete collection sumps in the truck wash building which are connected to an open concrete channel. The channel, approximately 30 feet long, shall lead to a two compartment, inground collection tank to accommodate settling of sludge and collection of liquid. Design of the Truck Wash Tank System, including the associated sumps and channel, and the design of the proposed secondary containment structures shall be as described in Attachment 16 and as specified in Figures D.8-1 and D.8-2 of Attachment 16.

IV.F.(2) The liquid waste placed in the Truck Wash Tank System shall consist of only the contaminated rinse water which accumulates in the process of washing: (a) the exterior of empty vehicles or other equipment in the truck washing facility, or (b) the interior of emptied containers, including roll off boxes, returnable DOT approved containers and end dumps. In addition, bulk waste loads may be temporarily stationed in the Truck Wash Tank System, if they are leaking on arrival at the facility, in order to avoid releases to the environment. The rinsing of the exterior of vehicles, as described in (a), is required by this permit. The rinsing and other activity, as described in (b), is not required by this permit, but may be conducted by the Permittee at its discretion.

Nonliquid hazardous waste, such as fly ash, or other nonhazardous stabilizing agent as specified in Attachment 14, may also be added to the sludge settling tank on an as needed basis for the purpose of stabilizing accumulated sludge prior to placement in a landfill unit. All procedures for stabilization of solids or sludges shall be equivalent to the procedures required in permit condition IV.D.

IV.F.(3) The Permittee shall operate the Truck Wash Tank System, including the associated sumps and channel, in accordance with the procedures specified in Attachment 16 and in accordance with permit condition II.A.(1). Additionally, the Permittee shall comply with all applicable sections of Attachment 2 (Waste Analysis Plan), Attachment 4 (Inspection Plan), and Attachment 7 (Contingency Plan).

IV.F.(4) The Permittee shall maintain at least one foot of freeboard in the sludge settling tank and collection tank. The Permittee shall set the high level alarm system to be activated so that the specified freeboard limit is not exceeded.



- IV.F.(5) Prior to placement of any sludge from the Truck Wash Tank System into a landfill unit, the Permittee shall follow the stabilization and analyses procedures outlined in Attachments 2 and 14 to ensure that the sludge has been properly stabilized. The sludge may be stabilized in either the Stabilization Unit tanks [as described in permit condition IV.D.(1)] or in the Truck Wash Tank System.
- IV.F.(6) The Permittee shall construct the secondary containment structures and monitoring devices for the Truck Wash Tank System, including the associated sumps, and the channel, as required by permit condition IV.F.(1). This structure shall be installed and fully operational within the schedule required by 40 CFR Part 264 Subpart J. Upon completion of construction, the as-built drawings, a narrative report and the construction certification document shall be submitted to the Manager and the Administrator in accordance with permit condition II.A.(2).

**Note:** Due to the nature of this construction modification, (adding secondary containment to an existing tank system), the Permittee shall not be required to comply with permit condition I.P. and, thereby, this tank system may be placed back into service immediately upon completion of construction.

**IV.G. Closure.**

The Permittee shall close all tank units in accordance with the applicable sections of Attachment 8 (Closure Plan) and Section II.J. of this permit.

## V. SURFACE IMPOUNDMENT STORAGE AND TREATMENT

### V.A. Evaporation Impoundments.

- V.A.(1) Evaporation impoundments shall consist of three existing units, (P-A, P-12, and P-16), and two proposed units, (P-B and P-C). Units P-12 and P-16 shall be removed from service by November 8, 1988, at which time closure of these units must have been initiated.
- V.A.(2) The Permittee may store and treat (by evaporation and physical settling) any of the aqueous liquid or semi-solid wastes which are listed on the Part A permit application, included as Attachment 11 of this permit, except that the wastes listed in Attachment 11, Table 1-2 shall not be stored or treated in the evaporation impoundments. The Permittee shall not store or treat any wastes which are restricted from land disposal under 40 CFR Part 268 unless the applicable treatment standard as specified in 40 CFR Part 268 has been achieved prior to placement in the units. In addition, as new wastes are specified for land disposal restriction under 40 CFR Part 268, the Permittee shall immediately cease storage and treatment of such wastes upon the effective date of the 40 CFR Part 268 regulation, unless the treatment standard as specified in 40 CFR Part 268 has been achieved prior to placement in the units.
- V.A.(3) If any waste, or the product or residue of the treatment of such waste, is incompatible with wastes already in an impoundment, based on the compatibility assessment as specified in the Waste Analysis Plan, Attachment 2 of this permit, such waste shall not be placed into the evaporation impoundment.
- V.A.(4) The Permittee shall maintain the design of existing units P-12 and P-16 as specified in Attachment 17 (Surface Impoundments: Design and Operation, Section D.6.3) and as specified in Attachment 18 (Impoundment Drawings, Exhibit 4A).

- V.A.(4)(a) Prior to construction of any soil liner for a surface impoundment, a test fill using materials characterized as the same as those used in the new surface impoundment shall be required. The Permittee shall, except as noted below, construct and test in accordance with the procedures contained in the Chemical Waste Management, Inc. 'Quality Assurance Manual For The Installation of the Soil Components of Lining and Final Cover Systems', as contained in Attachment 20, Exhibit 7B of this permit. The exception to these procedures shall be that the Permittee shall be required to perform in-place hydraulic conductivity testing, as specified in the Agency's publication, "Construction Quality Assurance Guidance", (EPA 530-SW-86-031, OSWER Policy Directive No. 9472.003). The in-place hydraulic conductivity testing shall be done either instead of or in addition to laboratory hydraulic conductivity testing.
- V.A.(5) The Permittee shall construct the proposed units P-A, P-B, and P-C in accordance with the specifications and descriptions in Attachment 17 Sections D.6.4, D.6.5, and D.6.7 and Attachment 18 Exhibit 4B. In addition, the Permittee shall follow the specifications of Attachment 19 (Landfill/Impoundment Technical Specifications, Exhibit 16B), Attachment 20 (Soil Liner Details, Exhibit 7B), and Attachment 21 (Synthetic Liner Details, Exhibits 5B and 5C).
- V.A.(6) The Permittee shall operate all evaporation impoundments in the manner specified in Attachment 17. The Permittee shall operate each evaporation impoundment in a manner to prevent physical barriers (i.e., solid material or sludge) from restricting the mixing of liquid waste. Additionally, the Permittee shall comply with Section V.A. of this permit and all applicable sections of Attachment 2 (Waste Analysis Plan), Attachment 4 (Inspection Plan), and Attachment 7 (Contingency Plan).

- V.A.(7)(a) The Permittee shall maintain freeboard in each evaporation impoundment as specified in Attachment 17 Table D.6-1 and shall follow the procedures specified in Attachment 17 Section D.6.8 to prevent overtopping.
- V.A.(7)(b) The Department reserves the right to increase the amount of freeboard required at any impoundment if overtopping has occurred. Such a change could occur at any point during the life of this permit and would be effective upon written notification from the Manager to the Permittee. Such a change would not require a permit modification in accordance with 40 CFR §270.41.
- V.A.(8) Prior to placement of any sludge from the evaporation impoundments into a landfill unit, the Permittee shall follow the stabilization and analyses procedures outlined in Attachments 2 and 14 to ensure that the sludge has been properly stabilized. The Permittee may stabilize the sludge within the evaporation impoundments, as specified in Attachments 8 and 17.
- V.A.(9) For units P-A, P-B, and P-C, the Permittee shall submit a certification statement from a qualified engineer that the impoundment's dikes provide adequate structural integrity, in accordance with 40 CFR §264.226. This certification statement must be submitted to the Director with the as-built drawings for the unit.
- V.A.(10) The Permittee shall follow the requirements of 40 CFR §264.227 when emergency repairs are undertaken for an evaporation impoundment.
- V.A.(11) The Permittee shall follow the procedures as specified in Attachment 22 (Response Action Plan) Exhibit 21B, for units P-A, P-B, and P-C, with the following changes and additions:

V.A.(11)(a) Replace Section 7.0, paragraph 2, sentence 2, with the following:

"The Permittee shall monitor for and record on a daily basis the presence and volume of liquids in the leachate detection, collection and removal system sumps during the active life of the units (including the closure period)."

V.A.(11)(b) Add as Section 7.0, paragraph 2, sentence 3, the following:

"The Permittee shall analyze the daily monitoring data during the active life on a weekly basis to determine if the action leakage rate (ALR) is exceeded."

V.A.(11)(c) Add as new Section 7.5, the following:

"A 'significant increase' in the leakage rate shall be defined as a rate greater than 40 gpad (measured daily and averaged over one week) or a rate greater than 100 gpad (measured on any given day). The Permittee shall, within 45 calendar days of detecting a significant increase in the leakage rate, submit to the Manager and the Administrator a report on the leakage that includes the following information:

V.A.(11)(c)(1) An assessment of the problem causing the leak that includes a profile of liquid quantity collected and removed versus time, and characterization of changes in the rate of top liner leakage;

V.A.(11)(c)(2) A description of any change in the response to be implemented which differs from the procedures of the response action plan;

V.A.(11)(c)(3) A schedule for implementation; and,

V.A.(11)(c)(4) Other information to fully describe the response that will be implemented."

V.A.(11)(d) Replace Section 7.2, item 2, with the following:

"In the event that leakage is found to exceed the action leakage rate (ALR), as defined in Section 5.0, the Permittee shall notify the Manager and the Administrator, in writing, within seven calendar days of the date the ALR was exceeded and indicate that the Response Action Plan (RAP) has been implemented, to include the following steps."

V.A.(11)(e) Add as Section 7.2, new item 8, the following:

"In the event that leakage in excess of the ALR is detected in any leachate detection, collection, and removal system sump, the Permittee shall sample and analyze the liquid to determine whether the liquid is derived from hazardous waste. The Permittee shall determine the list of parameters for analysis, based on its knowledge of the wastes placed in the unit. Results of analyses shall be maintained in the operating record. Alternatively, the Permittee may delete this sampling and analysis requirement if all liquid found in any leachate detection, collection, and removal system sump is properly managed as hazardous waste."

V.A.(11)(f) Add as Section 5.0, new paragraph 2, the following:

"Therefore, the ALR shall be defined as 20 gpad (measured daily and averaged over one week). Additionally, in order to account for greater amounts of leakage that might occur in a single day, the ALR shall also be defined as 50 gpad (measured on any given day)."

V.A.(12) The Permittee shall close each evaporation impoundment in accordance with the applicable sections of Attachment 8 (Closure Plan) and Section II.J. of this permit.

**V.B. Reactive Solids Hydrolysis Impoundment.**

V.B.(1) The reactive solids hydrolysis impoundment shall consist of one existing unit, P-14. Unit P-14 shall be removed from service by November 8, 1988, at which time closure of the unit shall begin.

V.B.(2) The Permittee may treat any water reactive wastes in unit P-14, except those wastes listed in Attachment 11, Table 1-2. Additionally, if any waste, or the reaction product or residue of the treatment of such waste, is incompatible with wastes already in the impoundment, based on the compatibility assessment as specified in the Waste Analysis Plan, Attachment 2 of this permit, such waste shall not be placed in unit P-14.

V.B.(3) The Permittee shall maintain the design of unit P-14 as specified in Attachment 15 of this permit (Reactive Solids Hydrolysis Unit: Design and Operation) Section D.5.3 and as specified in Attachment 15 Figure D.5-2.

V.B.(4) The Permittee shall operate unit P-14 in accordance with the procedures specified in Attachment 15 of this permit and in accordance with permit condition II.A.(1) and 40 CFR §264.17. Additionally, the Permittee shall comply with all applicable sections of Attachment 2 (Waste Analysis Plan), Attachment 4 (Inspection Plan), and Attachment 7 (Contingency Plan).

V.B.(5)(a) The Permittee shall maintain freeboard in unit P-14 as specified in Attachment 15 Table D.5-1 and shall operate the unit in a manner to prevent overtopping during the mixing process.

- V.B.(5)(b) The Department reserves the right to increase the amount of freeboard required at unit P-14 if overtopping has occurred. Such a change could occur at any point during the life of this permit and would be effective upon written notification by the Manager to the Permittee. Such a change would not require a permit modification in accordance with 40 CFR §270.41.
- V.B.(6) Prior to placement of any sludge or hydrolyzed solid material, from which representative samples contain free liquids, in accordance with the Paint Filter Liquids Test, from unit P-14 into a landfill unit, the Permittee shall follow the stabilization and analyses procedures outlined in Attachments 2 and 14 to ensure that the sludge has been properly stabilized. Stabilization of sludge or hydrolyzed solid residue may be conducted in unit P-14, the Stabilization Unit tanks [permit condition IV.D.(1)], or the Reactive Solids Hydrolysis tanks [permit condition IV.E.(1)].
- V.B.(7) The Permittee shall follow the requirements of 40 CFR §264.227 when emergency repairs are undertaken for unit P-14.
- V.B.(8) The Permittee shall close unit P-14 in accordance with the applicable sections of Attachment 8 (Closure Plan) and Section II.J. of this permit.



## VI. LANDFILL DISPOSAL

### VI.A. Existing Landfill Units L-7, L-8, L-9, and L-10.

- VI.A.(1) The RCRA portions of units L-7, L-8, L-9, and L-10 shall be defined as the existing landfill units at this facility.
- VI.A.(2) The Permittee may dispose of any waste listed on the Part A permit application, included as Attachment 11 of this permit in the existing landfill units, except that the following restrictions on waste disposal shall apply:
- VI.A.(2)(a) The Permittee shall not dispose of wastes listed in Attachment 11, Table 1-2.
- VI.A.(2)(b) The Permittee shall not dispose of wastes containing free liquids. Free liquids analyses shall be performed in accordance with the applicable procedures in Attachment 2 (Waste Analysis Plan).

**Note:** Liquid wastes that are contained in lab packs (packaged in accordance with 40 CFR §264.316) or small containers, ampules, capacitors, or batteries, (in accordance with 40 CFR §264.314), may be disposed without stabilization and related testing and verification procedures, provided other restrictions, as specified in this permit or by other laws or regulations, do not prohibit the land disposal of such wastes.

VI.A.(2)(c)(1) The Permittee shall not dispose of any waste which was generated as a liquid and was then stabilized by the generator (or another off-site treatment facility) unless the Permittee has conducted testing to ensure that the waste has been properly stabilized, (i.e., a minimum of one ton per square foot load bearing capacity has been achieved). Such testing shall be done by the Permittee, using sampling and analytical methods outlined in Attachment 2 (Waste Analysis Plan), and Attachment 14 (Stabilization Unit -- Design and Operations). Records of such analyses shall be maintained in the operating record for a minimum period of three years. This permit condition [VI.A.(2)(c)(1)] shall not apply if the Permittee complies with permit condition VI.A.(2)(c)(2).

VI.A.(2)(c)(2) As an alternative to the testing by the Permittee specified in permit condition VI.A.(2)(c)(1), the Permittee shall maintain documentation supplied by the generator (or another off-site treatment facility) that proper stabilization has been achieved. Documentation from the generator (or another off-site treatment facility) must contain a description of the stabilization procedures used, including a signed certification that the stabilized waste passed criteria equivalent to the Stabilization Evaluation Test, (i.e., a minimum of one ton per square foot load bearing capacity within 24 hours after stabilization), as specified in Attachment 2 of this permit. The Permittee shall maintain such documentation in the operating record for a minimum period of three years.

VI.A.(2)(d) The Permittee shall not dispose any wastes which are restricted from land disposal under 40 CFR Part 268 unless the applicable treatment standard as specified in 40 CFR Part 268 has been achieved. In addition, as new wastes are specified for land disposal restriction under 40 CFR Part 268, the Permittee shall immediately cease disposing of such wastes upon the effective date of the 40 CFR Part 268 regulation, unless the treatment standard as specified in 40 CFR Part 268 has been achieved.

VI.A.(2)(e) The Permittee shall not dispose ignitable or reactive wastes (Environmental Protection Agency Waste numbers D001 or D003, respectively) or any listed waste for which the basis for listing is ignitability or reactivity, unless the waste has been treated to render it nonignitable or nonreactive. For such wastes, the Permittee shall follow testing procedures used to determine ignitability and reactivity as specified in Attachment 2 (Waste Analysis Plan).

**Note:** Cyanide or sulfide bearing waste as defined in 40 CFR §261.23(a)(5) may be packaged in accordance with 40 CFR §264.316 and disposed without first being treated or rendered nonreactive.

VI.A.(3) The Permittee shall maintain the design of units L-7, L-8, L-9, and L-10 as specified in Attachment 23 of this permit (Landfills -- Design and Operation), and Attachment 24 of this permit (Exhibit 6A, Existing Landfill Drawings).

VI.A.(4) The Permittee shall operate units L-7, L-8, L-9, and L-10 in accordance with the operating practices described in Attachment 23 and in accordance with permit condition II.A.(1). Additionally, the Permittee shall comply with all provisions of permit condition VI.A. and all applicable sections of Attachment 2 (Waste Analysis Plan), Attachment 4 (Inspection Plan), Attachment 7 (Contingency Plan), and Attachment 14, (Stabilization Unit).

- VI.A.(5) The Permittee shall inspect the leachate collection system in units L-7 and L-9 for the presence of liquid on a weekly basis. The results of the inspection, including the amount of any liquid found, shall be entered in the operating record. Prior to final facility closure, if liquid is found in the leachate collection system, all pumpable quantities of such liquid shall be removed, to the extent practicable, within 24 hours of the time such liquid is found. The time for removal of liquid shall be 72 hours after finding liquid in the leachate collection system after final facility closure. In all cases, the liquid shall be managed as hazardous waste.
- VI.A.(6) The Permittee shall maintain a permanent accurate record of the three dimensional location of each waste, based on grid coordinates, within each of the existing landfill units in accordance with 40 CFR §264.309. This record shall include the information necessary to locate a specific waste and shall be based on information contained in the manifest (generator identification number, waste code, and date of disposal). This condition shall apply to all wastes placed in the existing landfill units, irrespective of the date of disposal. Upon final closure of the facility, the Permittee shall submit copies of these records for each of the existing landfill units to the Manager and the Administrator.
- VI.A.(7) The Permittee shall close each of the existing landfill units in accordance with the applicable sections of Attachment 8 (Closure Plan), Attachment 9 (Closure Cover Design), and Section II.J. of this permit.
- VI.A.(8) The Permittee shall follow the requirements for post-closure care of the existing landfill units in accordance with the applicable sections of Attachment 8 (Post-closure Plan) and Section II.L. of this permit. The post-closure care period for each unit shall begin at the time of receipt of the closure certification statements by the Department and the Agency, except as provided by permit condition IX.G.(2).

**VI.B. New and Proposed Landfill Units L-13 and L-12.**

VI.B.(1) Cells 1 and 2 of unit L-13 (placed in service prior to issuance of this permit) shall be defined as the new landfill units. Cells 3, 4, 5, and 6 of unit L-13 and unit L-12 (to be placed in service after issuance of this permit) shall be defined as the proposed landfill units at this facility.

VI.B.(2) The Permittee may dispose of any waste listed on the Part A permit application, included as Attachment 11 of this permit in units L-13 or L-12, except that the following restrictions on waste disposal shall apply:

VI.B.(2)(a) The Permittee shall not dispose of wastes listed in Attachment 11, Table 1-2.

VI.B.(2)(b) The Permittee shall not dispose of wastes containing free liquids. Free liquids analyses shall be performed in accordance with the applicable procedures in Attachment 2 (Waste Analysis Plan).

Note: Liquid wastes that are contained in lab packs (packaged in accordance with 40 CFR §264.316) or small containers, ampules, capacitors, or batteries, (in accordance with 40 CFR §264.314), may be disposed without stabilization and related testing and verification procedures, provided other restrictions, as specified in this permit or by other laws or regulations, do not prohibit the land disposal of such wastes.

VI.B.(2)(c)(1)

The Permittee shall not dispose of any waste which was generated as a liquid and was then stabilized by the generator (or another off-site treatment facility) unless the Permittee has conducted testing to ensure that the waste has been properly stabilized, (i.e., a minimum of one ton per square foot load bearing capacity has been achieved). Such testing shall be done by the Permittee, using sampling and analytical methods outlined in Attachment 2 (Waste Analysis Plan), and Attachment 14 (Stabilization Unit -- Design and Operations). Records of such analyses shall be maintained in the operating record for a minimum period of three years. This permit condition [VI.B.(2)(c)(1)] shall not apply if the Permittee complies with permit condition VI.B.(2)(c)(2).

VI.B.(2)(c)(2)

As an alternative to the testing by the Permittee specified in permit condition VI.B.(2)(c)(1), the Permittee shall maintain documentation supplied by the generator ~~(or another~~ off-site treatment facility) that proper stabilization has been achieved. Documentation from the generator (or another off-site treatment facility) must contain a description of the stabilization procedures used, including a signed certification that the stabilized waste passed criteria equivalent to the Stabilization Evaluation Test, (i.e., a minimum of one ton per square foot load bearing capacity within 24 hours after stabilization), as specified in Attachment 2 of this permit. The Permittee shall maintain such documentation in the operating record for a minimum period of three years.

VI.B.(2)(d) The Permittee shall not dispose of any wastes which are restricted from land disposal under 40 CFR Part 268 unless the applicable treatment standard as specified in 40 CFR Part 268 has been achieved. In addition, as new wastes are specified for land disposal restriction under 40 CFR Part 268, the Permittee shall immediately cease disposing of such wastes upon the effective date of the 40 CFR Part 268 regulation, unless the treatment standard as specified in 40 CFR Part 268 has been achieved.

VI.B.(2)(e) The Permittee shall not dispose ignitable or reactive wastes (Environmental Protection Agency Waste numbers D001 or D003, respectively) or any listed waste for which the basis for listing is ignitability or reactivity, unless the waste has been treated to render it nonignitable or nonreactive. For such wastes, the Permittee shall follow testing procedures used to determine ignitability and reactivity as specified in Attachment 2 (Waste Analysis Plan).

Note: Cyanide or sulfide bearing waste as defined in 40 CFR §261.23(a)(5) may be packaged in accordance with 40 CFR §264.316 and disposed without first being treated or rendered nonreactive.

VI.B.(3)(a) The Permittee shall maintain the design of cells 1 and 2 in unit L-13 as specified in Attachment 23 of this permit (Landfills -- Design and Operation), and Attachment 24 of this permit (Exhibit 6B, New and Proposed Landfill Drawings).

- VI.B.(3)(b) The Permittee shall retrofit and construct proposed cells 3, 4, 5, and 6 of unit L-13 and shall construct unit L-12 in accordance with the applicable design specifications of Attachment 23 and Attachment 24, Exhibit 6B. In addition, the Permittee shall follow the applicable specifications of Attachment 19 (Landfill/Impoundment Technical Specifications, Exhibits 16A, 16B, 16C, and 16D), Attachment 20 (Soil Liner Details, Exhibit 7B), and Attachment 21 (Synthetic Liner Details, Exhibits 5B and 5C).
- VI.B.(3)(c) Prior to construction of any soil liner for a landfill unit, a test fill using materials characterized as the same as those used in the new landfill unit shall be required. The Permittee shall, except as noted below, construct and test in accordance with the procedures contained in the Chemical Waste Management, Inc. 'Quality Assurance Manual For The Installation of the Soil Components of Lining and Final Cover Systems', as contained in Attachment 20, Exhibit 7B of this permit. The exception to these procedures shall be that the Permittee shall be required to perform in-place hydraulic conductivity testing, as specified in the Agency's publication, "Construction Quality Assurance Guidance", (EPA 530-SW-86-031, OSWER Policy Directive No. 9472.003). The in-place hydraulic conductivity testing shall be done either instead of or in addition to laboratory hydraulic conductivity testing.
- VI.B.(4) The Permittee shall operate units L-13 and L-12 in accordance with the operating practices described in Attachment 23 and in accordance with permit condition II.A.(1). Additionally, the Permittee shall comply with all provisions of permit condition VI.B. and all applicable sections of Attachment 2 (Waste Analysis Plan), Attachment 4 (Inspection Plan), Attachment 7 (Contingency Plan), and Attachment 14, (Stabilization Unit).



- VI.B.(5) The Permittee shall maintain a permanent accurate record of the three dimensional location of each waste type, based on grid coordinates, within units L-13 and L-12 in accordance with 40 CFR §264.309. This record shall include the information necessary to locate a specific waste and shall be based on information contained in the manifest (generator identification number, waste code, and date of disposal). This condition shall apply to all wastes placed in units L-13 and L-12, irrespective of the date of disposal. Upon final closure of the facility, the Permittee shall submit copies of these records for units L-13 and L-12 to the Manager and the Administrator.
- VI.B.(6) Liquid in the primary leachate collection system of unit L-13 or L-12 will not exceed 30 cm (one foot) in depth over the primary liner after waste has been placed. (This does not include the area of the sump used to accumulate sufficient quantities of liquid for pumping). Liquid in the secondary leachate collection system of unit L-13 or L-12 will be removed, when pumpable quantities exist, to the extent practicable, within 24 hours after those quantities are found. The liquid from both the primary and secondary leachate collection systems will be managed as a hazardous waste. During the post-closure period, after final facility closure, liquid from the secondary leachate collection systems must be pumped, as described above, within 72 hours after such liquid is found.
- VI.B.(7) The Permittee shall follow the procedures as specified in Attachment 22 (Response Action Plan for Landfill L-13, Exhibits 21A and 21C), for cells 1 through 6 of unit L-13, with the following changes and additions:

VI.B.(7)(a) Replace Exhibit 21A, Section 6.0, paragraph 3, sentence 1; and, Exhibit 21C, Section 6.0, paragraph 2, sentence 2, with the following:

"The Permittee shall monitor for and record on a daily basis the presence and volume of liquids in the secondary leachate collection system sumps during the active life of the units (including the closure period), and at least weekly during the post-closure period."

VI.B.(7)(b) Add, as Exhibit 21A, Section 6.0, paragraph 3, sentence 2; and, Exhibit 21C, Section 6.0, paragraph 2, sentence 3, the following:

"The Permittee shall analyze the daily monitoring data during the active life on a weekly basis, and the weekly monitoring data during the post-closure period on a quarterly basis to determine if the action leakage rate (ALR) is exceeded."

VI.B.(7)(c) Add, as Exhibit 21A, Section 6.5; and, Exhibit 21C, Section 6.5, the following:

"A 'significant increase' in the leakage rate shall be defined as a rate greater than 40 gpad (measured daily and averaged over one week) or a rate greater than 100 gpad (measured on any given day). The Permittee shall, within 45 calendar days of detecting a significant increase in the leakage rate, submit to the Manager and the Administrator a report on the leakage that includes the following information:

VI.B.(7)(c)(1) An assessment of the problem causing the leak that includes a profile of liquid quantity collected and removed versus time, and characterization of changes in the rate of top liner leakage;

VI.B.(7)(c)(2) A description of any change in the response to be implemented which differs from the procedures of the response action plan;

- VI.B.(7)(c)(3) A schedule for implementation; and,
- VI.B.(7)(c)(4) Other information to fully describe the response that will be implemented."

- VI.B.(7)(d) Replace Exhibit 21A, Section 6.2, item 2; and, Exhibit 21C, Section 6.2, item 2, with the following:

"In the event that leakage is found to exceed the action leakage rate (ALR), the Permittee shall notify the Manager and the Administrator, in writing, within seven calendar days of the date the ALR was exceeded and indicate that the Response Action Plan (RAP) will be implemented."

- VI.B.(7)(e) Add as Exhibit 21A, Section 6.2, new item 7; and, Exhibit 21C, Section 6.2, new item 8, the following:

"In the event that leakage in excess of the ALR is detected in any secondary leachate collection system sump, the Permittee shall sample and analyze the liquid to determine whether the liquid is derived from hazardous waste. The Permittee shall determine the list of parameters for analysis, based on its knowledge of the wastes placed in the unit. Results of analyses shall be maintained in the operating record. Alternatively, the Permittee may delete this sampling and analysis requirement if all liquid found in any secondary leachate collection system sump is properly managed as hazardous waste."

- VI.B.(7)(f) Add as Exhibit 21A, Section 5.0, new paragraph 4; and, Exhibit 21C, Section 5.0, new paragraph 4, the following:

"Therefore, the ALR shall be defined as 20 gpad (measured daily and averaged over one week). Additionally, in order to account for greater amounts of leakage that might occur in a single day, the ALR shall also be defined as 50 gpad (measured on any given day).

The rapid and large leak (RLL) rate cells 1 through 6 of landfill unit L-13 shall be defined as 1500 gallons per day."

The Permittee shall delete Table 1 from Exhibit 21C, Section 3.2, and shall delete Table 3 from Exhibit 21C, Section 5.0; or, as an alternative, shall revise Tables 1 and 3, to account for the definitions of ALR and RLL, as specified in this permit condition.

- VI.B.(8) Prior to placement of waste into unit L-12, the Permittee shall obtain a permit modification from the Department and the Agency which specifies approved procedures that will be used to address liquid that may be found in the secondary leachate collection system sumps for the unit. The Permittee shall submit the modification request in accordance with 40 CFR §270.41, and include a modified Response Action Plan.
- VI.B.(9) The Permittee shall close units L-13 and L-12 in accordance with the applicable sections of Attachment 8 (Closure Plan), Attachment 9 (Closure Cover Design) and Section II.J. of this permit.
- VI.B.(10) The Permittee shall follow the requirements for post-closure care of units L-13 and L-12 in accordance with the applicable sections of Attachment 8 (Post-closure Plan) and Section II.L. of this permit. The post-closure care period for each unit shall begin at the time of receipt of the closure certification statements by the Department and the Agency.

## VII. SURFACE WATER MANAGEMENT PLAN

### VII.A. Design, Operation, and Maintenance of Surface Water Management System.

- VII.A.(1) The Permittee shall construct the surface water management system in accordance with the design, description and specifications in Attachment 25 (Surface Water Management Plan) of this permit. The Permittee, at its discretion, shall be allowed to install a clay and/or synthetic liner system in any portion of the surface water management system. Such a design change shall not require a permit modification under 40 CFR §270.41.
- VII.A.(2) The Permittee shall operate and maintain the surface water management system in the manner specified in Attachment 25 of this permit and in accordance with permit condition II.A.(1).
- VII.A.(3) The Permittee shall be allowed to implement changes to the surface water management plan in the event of emergency conditions without obtaining a permit modification from the Department. Any emergency changes to the surface water management system must be documented and reported to the Manager, in writing, within 30 calendar days of such changes. If the Director determines that such changes constitute a significant deviation from the permit (Attachment 25), the Director shall notify the Permittee that a permit modification, in accordance with 40 CFR §264.41, will be required. The Permittee shall submit to the Director any required permit modification request within 30 calendar days of such notification.

**VII.B. Schedule of Compliance.**

The portion of the facility surface water management system that impacts active waste management units or closed landfill units must be installed and operational within 180 calendar days of the effective date of this permit. The portion of the facility surface water management system that is designed to serve proposed waste management units must be installed and operational prior to placement of waste into those units. The Permittee shall follow the provisions of permit condition I.P. for new system construction.

## VIII. PAST PRACTICE UNITS

### VIII.A. Definition of Past Practice Units.

Past practice units at this facility shall consist of landfill units L-1, L-3, L-5, and L-6.

### VIII.B. Closure of Landfill Units L-1, L-3, L-5, and L-6.

If the Permittee is required to close units L-1, L-3, L-5, and L-6 under the requirements of this permit [see permit condition II.J.(2)(a)], the Permittee shall close each of these units in accordance with the applicable sections of Attachment 8 (Closure Plan), Attachment 9 (Closure Cover Design, Exhibit 20A), and Section II.J. of this permit.

### VIII.C. Post-closure Care of Landfill Units L-1, L-3, L-5, and L-6.

VIII.C.(1) The Permittee shall follow the post-closure care maintenance procedures outlined in Section II.L. of this permit and Attachment 8, Section 2 of this permit for units L-1, L-3, L-5, and L-6.

VIII.C.(2) The Permittee shall inspect the leachate collection system in unit L-5 for the presence of liquid on a weekly basis. The results of the inspection, including the amount of any liquid found, shall be entered in the operating record. Prior to final facility closure, if liquid is found in the leachate collection system, all pumpable quantities of such liquid shall be removed, to the extent practicable, within 24 hours of the time such liquid is found. The time for removal of liquid shall be 72 hours after finding liquid in the leachate collection system after final facility closure. In all cases, the liquid shall be managed as hazardous waste.

- VIII.C.(3)(a) The Permittee shall install groundwater monitoring wells and implement a groundwater monitoring program for past practice units L-1, L-3, L-5, and L-6, as specified in section IX. of this permit, except as provided in permit condition VIII.C.(3)(b).
- VIII.C.(3)(b) The following groundwater monitoring wells (both Level 1 and Level 2) shall be sampled for analyses on an annual basis, rather than semi-annually, until the end of the post-closure care period: 2R, 5I, 5H, 5G, 5E, 3L, 5F, 3R, 5A, and 3P.
- VIII.C.(3)(c) All new groundwater monitoring wells required by permit condition VIII.C.(3)(a) shall be installed and operational within 270 calendar days of the effective date of this permit. The post-closure care period of 30 years shall begin upon receipt of the closure certification statements for units L-1, L-3, L-5, and L-6 by the Director and the Administrator.

**VIII.D. Corrective Action for Potential Groundwater Contamination.**

Within 90 calendar days of a written request by the Director and the Administrator, the Permittee shall submit a permit modification request to modify the detection monitoring program at units L-1, L-3, L-5, or L-6 or to implement a corrective action program (equivalent to 40 CFR §264.100), whichever is determined to be appropriate by the Director and the Administrator, in the event that contamination of the groundwater is confirmed, based on the criteria specified in permit conditions IX.F. through IX.F.(7).



## IX. GROUNDWATER MONITORING PROGRAM

### IX.A. Monitoring Well/Piezometer Locations.

Permit conditions IX.A.(1) through IX.A.(3)(b) shall supercede "Groundwater Monitoring Program", included as Attachment 10, Section 4.1 of this permit. Additionally, Plate 1 of this permit supercedes Plates 1 and 2 of Attachment 10, Section 4.1; and Table 2 of this permit supercedes Attachment 10, Section 4.1, Table 4-1.

- IX.A.(1) The Permittee shall maintain existing downgradient groundwater monitoring wells and existing background water quality monitoring wells as designated on Plate 1 of this permit and as listed on Table 2 of this permit.
- IX.A.(2) The Permittee shall install new groundwater monitoring wells, at the locations specified on Plate 1 of this permit and as listed on Table 2 of this permit. Each new well shall be located within 30 feet of the horizontal grid coordinate specified on Table 2 of this permit.
- IX.A.(3) The Permittee shall maintain the existing network of piezometers, for the purpose of determining water level elevations, at the locations specified on Plate 1 of this permit.
- IX.A.(3)(a) "Level 1 Piezometers" (Level 1 being the upper level of the Selah aquifer, with the water table within the screened zone) shall consist of 22 piezometers, as listed below:

W9	2E	Y	2C	3C	W	2L
S	30	T	2N	2M	2Vb	3A
2X	20	3I	3H	4P	3J	2P
V.						

IX.A.(3)(b) "Level 2 Piezometers" (Level 2 being the lower zone of the Selah aquifer, with the bottom of the screened interval at the base of the saturated zone) shall consist of 33 piezometers, as listed below:

W9	2F	3C	2J	W	2K	2L
S	X	J	30	2H	2B	I
3F	2N	2M	3V	2V	3U	3A
MW1	2X	F	20	3I	3H	4Pa
2P	3Y	G	Va	H.		

**IX.B. Monitoring Well Construction.**

Permit conditions IX.B.(1) through IX.B.(8) shall supercede Attachment 10, Section 4.1.2..

IX.B.(1) All new monitoring wells (and any replacement wells) shall be drilled to a minimum diameter of 8 inches, by either air rotary or cable tool methods or any other method approved by the Department and the Agency. Such approval shall not require a permit modification under 40 CFR §270.41.

IX.B.(1)(a) Inspection of drilling and well construction shall be performed by a qualified geologist. The geologist shall construct and maintain a detailed log of each well, describing the geologic strata and moisture levels encountered during drilling. The logs and descriptions shall include:

- (1) Date and time of construction;
- (2) Drilling method and any fluid used;
- (3) Well location (surveyed to within 0.5 feet);

- (4) Borehole diameter and well casing diameter;
- (5) Well depth (to within 0.1 feet);
- (6) Drilling logs, geophysical logs, and lithologic logs, including a description of soil or rock types, color, petrology, moisture content, weathering, texture, structure, odor, and fractures;
- (7) Casing materials;
- (8) Screen material and design, including screen length and slot size;
- (9) Casing and screen joint type;
- (10) Filter pack material, including volume, size and placement method;
- (11) Composition and volume of sealant material and method of placement;
- (12) Surface seal design and construction;
- (13) Well development procedure;
- (14) Ground surface elevation (to within 0.01 feet);
- (15) Top of casing elevation (to within 0.01 feet); and,
- (16) Detailed drawing of well, including dimensions.

The Permittee shall submit, to the Manager and the Administrator, these logs and descriptions with the as-built drawings for each well within 60 calendar days after completion of each well.

- IX.B.(1)(b) The Permittee shall take all reasonable precautions during drilling which may be necessary to prevent potential cross contamination between different zones.
- IX.B.(2) Well depths, screened intervals, and filter intervals shown on Table 2 should be considered approximate and shall be adjusted by the Permittee at the time of well construction to accommodate screening of the designated aquifer unit (Selah Level 1 or 2) while maintaining hydraulic separation between aquifer units. Hydraulic separation shall be maintained through proper placement of well screens, sand filter intervals, and well annulus seals to avoid screening of wells through the persistent gray clay confining unit (or other significant confining unit) which separates the Selah Level 1 and Level 2 aquifers where the clay is present. All wells completed at the base of Level 2 shall be sealed at the bottom of the boring to prevent leakage into the Priest Rapids basalt member.
- IX.B.(3) The first well in each well pair (i.e., Level 2) shall be drilled to the Priest Rapids Basalt and then logged geophysically to identify the saturated zone and confining intervals within the Selah aquifer. The geophysical logging suite shall include, at a minimum, neutron, gamma-gamma, and natural gamma logging. The well shall be completed to fully screen the Selah Level 2 aquifer up to the base of the gray clay confining layer, (or other significant confining unit that may be present at that location) and shall include a silica sand filter and bentonite seal, appropriately placed by tremie pipe so as to isolate the screened zone beneath the confining layer. The remainder of the well annulus, to within two feet of the ground surface, shall be sealed with a 4% to 5% bentonite cement grout, placed by a tremie pipe. From two feet below ground surface, a concrete seal shall be placed. The concrete seal shall blend into a four inch thick apron, extending three feet or more from the outer edge of the borehole and shall slope away from the well head to prevent ponding of water. A lockable security casing shall be cemented in place over the well head.

IX.B.(4) Following completion of each Level 2 well, the Level 1 well of that well pair shall be drilled in the same manner as the Level 2 well, except that the Level 1 well shall be completed to the top of the gray clay layer (or other confining layer that may be present at that location). The screened interval shall extend from the top of the confining clay layer to approximately three feet above the top of the saturated Selah aquifer. A silica sand filter shall be placed by tremie pipe in the well annulus from the bottom of the well screen to a height of two to three feet above the top of the well screen. A three foot bentonite seal shall be placed by tremie pipe in the well annulus immediately above the sand filter, for a distance of approximately three feet. The remainder of the well annulus, to within two feet of the ground surface, shall be sealed with a 4% to 5% bentonite cement grout, placed by a tremie pipe. From two feet below ground surface, a concrete seal shall be placed. The concrete seal shall blend into a four inch thick apron, extending three feet or more from the outer edge of the borehole and shall slope away from the well head to prevent ponding of water. A lockable security casing shall be cemented in place over the well head.

IX.B.(5) Where no significant confining layer separating the Selah Level 1 and 2 aquifers is identifiable, based on drilling and geophysical logging, a single fully penetrating well shall be acceptable to monitor both Levels 1 and 2 at that location, irrespective of aquifer thickness. In such cases, the top of the screen must extend from approximately three feet above the water table to the Priest Rapids basalt. The determination of whether a significant confining layer is present shall be made by the onsite geologist, as identified in permit condition IX.B.(1)(a).

In addition, at locations where the combined saturated thickness of both Levels 1 and 2 of the Selah aquifer is found to be less than 20 feet, based on drilling and geophysical logging, a single fully penetrating well shall be acceptable to monitor both Levels 1 and 2 at that location, irrespective of the presence of a significant confining layer.

IX.B.(6) All new or replacement monitoring well casings and screens shall be constructed of either Type 316 stainless steel or Schedule 80 polyvinyl chloride (threaded connection and meeting or exceeding National Sanitation Foundation criteria) within either the unsaturated or saturated zone of the Selah aquifer. The well screen slot size and construction shall be selected in consideration of the grain size of the native material around the screen and the appropriate silica sand filter gradation, to minimize turbidity in the water samples and to minimize the potential of silting in the well.

IX.B.(7) The Permittee shall construct, develop, and equip all new monitoring wells for existing waste management units or existing waste management areas, as required by permit conditions IX.A. through IX.A.(2), IX.B. through IX.B.(8), and VIII.C.(3)(a) through VIII.C.(3)(c) within 270 calendar days after the effective date of this permit. If a monitoring well must be replaced for any reason during the term of this permit, it shall be replaced within 90 calendar days of the date taken out of service.

The following list of monitoring wells for proposed units L-12 and Pond C, must be constructed and be made fully operational at least 30 calendar days prior to placement of waste in the units. The term "fully operational" shall mean that water level elevations have stabilized and the wells are ready to be sampled. These wells are as follows: For landfill L-12, wells 5O-1, 5O-2, 5P-1, 5P-2, 5Q-1, 5Q-2, 5R-2, 5S-1, and 5T-2. For Pond C, well 6D-2.

IX.B.(8) Any replacement piezometers that may be required during the life of this permit shall be installed as close as practicable to the piezometer being taken out of service and, to the extent possible, shall be installed in accordance with the design and specifications of the piezometer being taken out of service. If a piezometer must be replaced for any reason during the term of this permit, it shall be replaced within 90 calendar days of the date taken out of service.

**IX.C. Monitoring Well/Piezometer Maintenance.**

IX.C.(1) The Permittee shall maintain all monitoring wells and piezometers in good working order, making necessary repairs in a timely manner so that the sampling program is not hindered or delayed in any way. The Permittee shall maintain an adequate supply of replacement parts and repair equipment to ensure that each sampling event proceeds on schedule.

IX.C.(2) The Permittee shall follow the procedures in the Inspection Plan, Table 3-2 and Figure A-3, which are included in Attachment 4 of this permit for routine inspection of monitoring wells and piezometers. Within 60 calendar days after completion of construction of all additional monitoring wells required by permit conditions IX.A.(1) and IX.A.(2), the Permittee shall revise and submit Figure A-3 to the Manager and the Administrator to reflect the additional monitoring wells.

IX.C.(3) The Permittee shall maintain borehole integrity of each monitoring well and piezometer, as required by 40 CFR §264.97(c). For any existing monitoring well which has dedicated sampling equipment, the Permittee shall calculate the specific capacity of that well during the first sampling event after the effective date of this permit. The specific capacity shall then be recalculated for that well on a biennial basis during the term of this permit. If, at any time, the specific capacity of that well decreases by more than 20 percent of the original calculated value, that well shall be redeveloped.

The Permittee shall calculate the specific capacity for any new well constructed and equipped with dedicated sampling equipment within the term of this permit, during the first sampling event for which that well is available for sampling. The recalculation and redevelopment criteria, as specified above for existing wells, shall then be followed by the Permittee.

The Permittee shall sound each piezometer and each monitoring well which is not provided with dedicated sampling equipment on a biennial basis, beginning with the first sampling event after the effective date of this permit. The Permittee shall redevelop any such well or piezometer which has accumulated silt or sediment in excess of one foot of depth.

The Permittee shall maintain records of all data obtained, in accordance with this permit condition, in the operating record for the term of this permit.

**IX.D. Detection Monitoring Program.**

The Permittee shall comply with Attachment 10, Section 6 of this permit, as modified by the following permit conditions.

- IX.D.(1) The Permittee shall include all monitoring wells as required by permit conditions IX.A.(1) and IX.A.(2) in the detection monitoring program. Additionally, each piezometer as required by permit condition IX.A.(3) shall be included in the detection monitoring program, for the purpose of determining direction and rate of flow.
- IX.D.(2) The Permittee shall obtain water level (or piezometric head) measurements from all monitoring wells and from all piezometers, for which water level elevations (or piezometric heads) have stabilized after construction, prior to each sampling event. Measurements for each monitoring well shall be obtained prior to purging of the well. The Permittee shall use this data to determine the rate and direction of groundwater flow annually, as required by 40 CFR §264.98(e). The Permittee shall use these data to construct water table elevation (or piezometric surface) contour maps for Level 1 and Level 2 of the Selah Aquifer.



In order to minimize the potential for error caused by variations in barometric pressure, the Permittee shall obtain all water level measurements within a single day or within consecutive days, during which there is less than a 20 percent variation in barometric pressure.

These maps shall be submitted to the Manager and the Administrator by June 1 of each year. Additionally, the Permittee shall submit, with the contour maps, a written review of the adequacy of the groundwater monitoring system relative to observed groundwater flow directions.

- IX.D.(3) The Permittee shall begin sampling of each new groundwater monitoring well at the next semi-annual sampling event (or annual sampling event for past practice units) following completion of construction of that well, irrespective of the construction status of other new monitoring wells.
- IX.D.(4) The Permittee shall continue the Detection Monitoring Program at each monitoring well until:
- IX.D.(4)(a) The waste management unit (or waste management area) for which the monitoring well is designated is certified as "clean closed", in accordance with 40 CFR §264.115 and the closure plan. The monitoring wells for which this permit condition may be applicable are listed on Table 2 of this permit (i.e., wells for which post-closure monitoring is not anticipated); or,
- IX.D.(4)(b) The Director and the Administrator notify the Permittee, in writing, that the post-closure care period for a waste management unit (or waste management area) has been completed, with no indication of contamination in that monitoring well; or,

- IX.D.(4)(c) The Director and the Administrator direct the Permittee to enter a corrective action program (40 CFR §264.100), for a specific monitoring well or group of wells, in the event that contamination of the groundwater is confirmed, based on the criteria specified in permit conditions IX.F. through IX.F.(7).
- IX.D.(5) The Permittee shall close all wells, piezometers, or borings that are not listed on Plate 1 or Table 2 of this permit or that are not determined to be necessary for future site development and aquifer characterization, in accordance with the requirements of the State of Oregon Water Resources Department. The Permittee shall determine whether existing wells, piezometers, or borings, which are not required by this permit, are necessary for future site development and aquifer characterization. Any wells, piezometers, or borings which are designated for closure shall be closed within two years of the effective date of this permit.
- IX.D.(6) The Permittee shall sample and analyze all monitoring wells during each semi-annual sampling event (or annual sampling event for past practice units) for the parameters, (including their detection limits), listed in Attachment 10, Section 6, Table 6-1. Results of these analyses and any other verification analyses or Appendix IX analyses, (including laboratory detection limits achieved for each parameter), shall be submitted to the Manager and the Administrator within 30 calendar days of the Permittee's receipt of results from the laboratory, but in no case shall the period between the date of sampling and the date of submission of analytical results to the Manager and the Administrator exceed 90 calendar days.

**IX.E. Groundwater Sampling and Analysis.**

The Permittee shall comply with Attachment 10, Section 5 of this permit, as modified by the following permit conditions.

- IX.E.(1) The specifications of the positive displacement pump mentioned in Attachment 10, Section 5.1 shall be equivalent to a "Hydrostar Model HS-8000" pump.
- IX.E.(2) Water used in comprising field blanks shall be distilled/deionized, organic free water and shall be from the same source as that water used to decontaminate sampling equipment and filtering apparatus. Trip blanks may be supplied by the laboratory which conducts the groundwater analyses.
- IX.E.(3) After purging the monitoring well, the Permittee shall collect samples for volatile organic analyses, (as listed in Attachment 10, Table 6-1), as soon as reasonably possible after three feet of recharge has occurred, in order to minimize the time between purging and sampling. For wells provided with dedicated sampling equipment, the three feet of recharge shall be measured from the top of the sampling pump. For wells without dedicated sampling equipment, the three feet of recharge shall be measured from the bottom of the well.
- IX.E.(4) Any of the following specific analytical methods referenced from the following documents may be used in analyses of groundwater samples:
- Third Edition of EPA SW-846 ("Test Methods for Evaluating Solid Waste, Physical/Chemical Methods");
  - EPA Method 624 (40 CFR Part 136) (for Volatile Organic Compounds only);
  - EPA/600-4-79-020.

<u>Parameter</u>	<u>SW-846 Method</u>	<u>600-4-79-020 Method</u>
Volatile Organics:	8240	N/A, use Method 624
Arsenic:	7060	206
Cadmium:	6010	213
Chromium:	6010	218
Copper:	6010	220
Cyanide:	9012	335.1, 335.2, or 335.3
pH:	9040	150.1
Specific conductance:	9050	120.1

In addition, analytical methods for any other parameters that are required by this permit (including 40 CFR Part 264 Appendix IX constituents), shall be the appropriate methods for such parameters, as specified in the above referenced documents.

IX.E.(5) Samples collected for metallic constituent analyses shall be split into two aliquots with the first aliquot to be filtered through a 0.45 micron membrane filter prior to analysis and the second aliquot to remain unfiltered. Both aliquots shall be analyzed for arsenic, copper, cadmium, and chromium. Analysis of both filtered and unfiltered aliquots shall continue for a period of three years, at which time the Director and the Administrator shall determine whether filtered and unfiltered samples yield equivalent analytical results. If results are determined to be equivalent, the Permittee shall be so notified, in writing, and the requirement for unfiltered samples for metals will be deleted from this permit. Such a change shall not be considered a major permit modification under 40 CFR §270.41.

IX.E.(6) The Permittee shall follow the procedures described in Attachment 10, Appendix C ["Manual for Groundwater Sampling (Waste Management, Inc.)"].

**IX.F. Data Evaluation.**

The Permittee shall comply with Attachment 10, Section 7 of this permit, as modified by the following permit conditions.

- IX.F.(1) The statistical monitoring criteria for evaluating data from each sampling event for any volatile organic compound (VOC), listed in Attachment 10, Section 6, Table 6-1, shall be set as either:
- IX.F.(1)(a) 20 micrograms per liter for any single VOC, (rather than 40 micrograms per liter, as proposed by the Permittee in Attachment 10, Section 7.3); or,
- IX.F.(1)(b) Four VOC parameters with concentrations that exceed the method detection limits of EPA SW-846, Third Edition. The detection limit for VOC's in this reference is 10 micrograms per liter.
- IX.F.(2) Upon detection of VOC concentrations in any downgradient monitoring well exceeding the criteria specified in permit condition IX.F.(1)(a) and/or IX.F.(1)(b), the Permittee shall: (a) notify the Director and the Administrator of this finding, in writing, within 7 calendar days, in accordance with 40 CFR §264.98(h)(1); and, (b) immediately collect two samples from any affected well(s), purging the well(s) between samples, and reanalyze both samples for all VOC's listed in Attachment 10, Section 6, Table 6-1.
- IX.F.(3) If analytical results from both verification samples described in permit condition IX.F.(2) confirm the detection of VOC above the statistical monitoring criteria, the affected well(s) shall be sampled within 14 calendar days and analyzed for the constituents identified in 40 CFR Part 264 Appendix IX. Within 90 calendar days of the receipt of the Appendix IX results, the Permittee shall submit to the Director and the Administrator either of the following:

- IX.F.(3)(a) An application for a permit modification to establish a corrective action program meeting the requirements of 40 CFR §264.100; or,
- IX.F.(3)(b) A report demonstrating that a source other than a waste management unit (or waste management area) caused the increase, or that the increase resulted from error in sampling, analysis, or evaluation, and in addition, when required by 40 CFR §264.98(i), an application for a permit modification to make any appropriate changes to the detection monitoring program at the facility.
- IX.F.(4) If the Permittee is unable to identify any source of contamination (in accordance with permit condition IX.F.(3)(b)), other than the waste management unit, then the Permittee shall do the following:
- IX.F.(4)(a) Immediately sample all monitoring wells at the point of compliance of the affected waste management unit for Appendix IX constituents and continue this sampling quarterly until the permit is modified or for a period of one year; and,
- IX.F.(4)(b) Establish the background concentration of all parameters identified at the point of compliance, as specified at 40 CFR §264.97(g); and,
- IX.F.(4)(c) Submit an application for a permit modification within 90 calendar days to establish a corrective action meeting the requirements of 40 CFR §264.100.
- IX.F.(5) If analytical results from only one of the verification samples described in permit condition IX.F.(2) confirms the detection of VOC above the statistical monitoring criteria, the Permittee shall return to the verification procedure, which begins in permit condition IX.F.(2).

If analytical results from both verification samples described in permit conditions IX.F.(2) fail to confirm the detection of VOC above the statistical monitoring criteria, the Permittee shall resume detection monitoring according to the standard semi-annual schedule (or annual sampling event for past practice units) and notify the Manager and the Administrator that the detection monitoring program is being resumed.

IX.F.(6) For all indicator parameters, other than VOC's, (Attachment 10, Section 6, Table 6-1), the Permittee shall perform graphical time trend analyses. Analytical data collected for these parameters over the first three years following the effective date of this permit shall be used to construct these analyses. The Permittee shall submit a copy of the trend analyses to the Manager and the Administrator within 15 calendar days after the results of analyses have been completed by the Permittee. In addition, the Permittee shall submit analytical results for these parameters for every sampling event, in accordance with the time limits specified in permit condition IX.D.(6). Based on the analytical data collected during the three year period for these parameters, the Director and the Administrator shall determine whether a significant increase above background concentrations has occurred and will notify the Permittee, in writing, if any permit modification, in accordance with permit condition IX.F.(7), is required.

IX.F.(7) Within 90 calendar days of a written request by the Director and the Administrator, the Permittee shall submit a permit modification request to modify the detection monitoring program or to implement a corrective action program (40 CFR §264.100), whichever is determined to be appropriate by the Director and Administrator, based on the analytical results and data evaluation obtained under permit conditions IX.F.(1) through IX.F.(6).

IX.G. Post-closure Monitoring.

- IX.G.(1) All procedures described in Section IX. for inspection, maintenance, and monitoring of the groundwater monitoring system shall apply to the post-closure care period, as well as the active life of each waste management unit (or waste management area).
- IX.G.(2) As specified in permit condition II.L.(2), the period of post-closure care for each landfill unit and any other unit, as applicable, shall be 30 years, to commence upon receipt of the closure certification statements for each unit by the Department and the Agency. If monitoring wells have been specified for a waste management area containing multiple waste management units, the post-closure care period shall not begin until the last unit in that waste management area is certified as closed, as stated above.
- IX.G.(3) Except as the period may be shortened or extended, as provided in 40 CFR §264.117(a)(2), the period of post-closure care for each landfill unit and any other unit, as applicable, shall be 30 years, to commence upon completion of closure of the unit, except as provided by permit condition IX.G.(2).
- IX.G.(4) In the event that any surface impoundment(s) cannot be "clean closed", the Permittee shall submit a revised post-closure plan, a revised post-closure cost estimate, and a revised post-closure financial assurance mechanism to the Director and the Administrator to address the post-closure groundwater monitoring program for the waste management unit. Such revisions shall be in the form of a permit modification request (40 CFR §270.41) and shall be submitted to the Director and the Administrator with 90 calendar days of written request by the Director and the Administrator, as required by permit condition II.J.(13).



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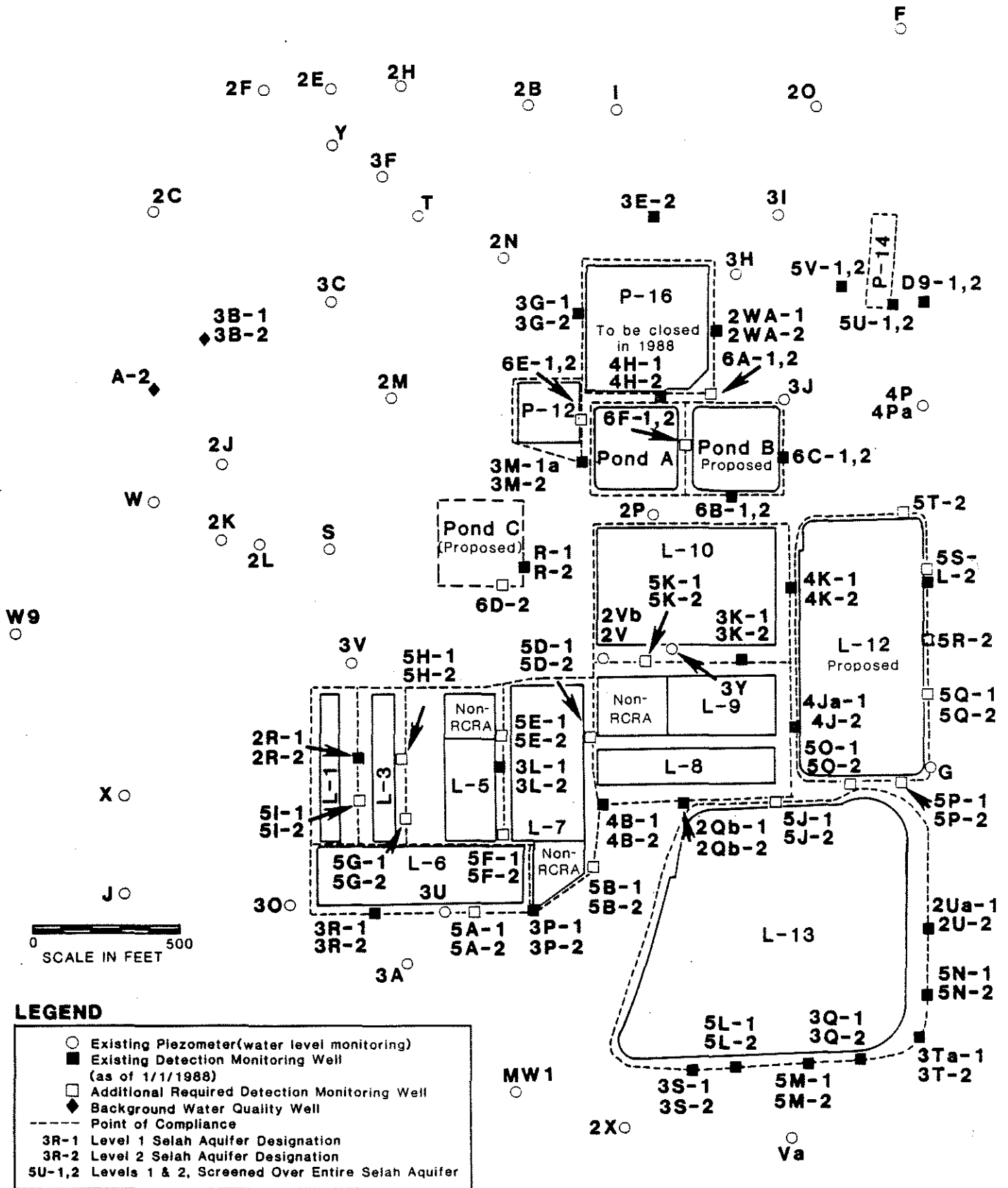


PLATE 1 GROUNDWATER MONITORING NETWORK

TABLE 2  
 MONITORING WELL SPECIFICATIONS AND COORDINATES

Well No. (a)	Location		Elevation (ft) [b]	Well Depth (ft) [c]	Screened Interval (ft) [c]	Filter Interval (ft) [c]	Anticipated Post-Closure Monitoring
	Eastings	Northing					
<b>WASTE MANAGEMENT AREA: L-1</b>							
Existing Wells (as of January 1, 1988):							
2-R1	-1905	925	947.57	165.0	155-165	152.1-169.1	yes
2R-2	-1910	925	944.58	208.0	203-208	199.5-211.5	yes
Additional Wells Required by this Permit: [d]							
51-1	-1910	760	940	188	157-188	154-188	yes
51-2	-1915	760	940	211	199-211	196-211	yes
<b>WASTE MANAGEMENT AREA: L-3</b>							
Additional Wells Required by this Permit:							
5G-1	-1800	725	950	197	173-197	170-197	yes
5G-2	-1805	725	950	222	209-222	206-222	yes
5H-1	-1800	925	950	197	168-197	165-197	yes
5H-2	-1805	925	950	219	206-219	203-219	yes
<b>WASTE MANAGEMENT AREA: L-5</b>							
Existing Wells (as of January 1, 1988):							
3L-1	-1465	895	967.36	208.7	198-208	197.3-211.8	yes
3L-2	-1460	895	967.38	234.6	231-234	229.5-237.8	yes
Additional Wells Required by this Permit:							
5E-1	-1455	1000	950	196	176-196	173-196	yes
5E-2	-1460	1000	950	214	205-214	202-214	yes
5F-1	-1455	710	950	196	179-196	176-196	yes
5F-2	-1460	710	950	219	207-219	204-219	yes
<b>WASTE MANAGEMENT AREA: L-6 and L-7</b>							
Existing Wells (as of January 1, 1988):							
3R-1	-1883.80	393.41	952.27	182.80	172.8-182.8	171.8-182.8	yes
3R-2	-1873.10	393.41	953.26	226.00	216.0-226.0	241.1-227.6	yes
3P-1	-1354.03	394.01	951.05	205.80	190.8-205.8	189.8-206.9	yes
3P-2	-1345.13	395.76	950.95	225.80	215.8-225.8	214.6-227.1	yes
4B-1	-1120.63	774.20	957.71	207.00	192.0-207.0	190.8-208.5	yes
4B-2	-1121.63	763.45	960.49	232.80	222.8-232.8	221.7-233.9	yes

TABLE 2  
 MONITORING WELL SPECIFICATIONS AND COORDINATES  
 (Continued)

Well No. (a)	Location		Elevation (ft) [b]	Well Depth (ft) [c]	Screened Interval (ft) [c]	Filter Interval (ft) [c]	Anticipated Post-Closure Monitoring
	Eastings	Northing					
Additional Wells Required by this Permit:							
5A-1	-1560	390	953	209	184-209	181-209	yes
5A-2	-1565	390	953	228	218-228	216-228	yes
5B-1	-1140	550	950	209	186-209	183-209	yes
5B-2	-1180	500	950	227	221-227	218-227	yes
5D-1	-1500	1000	950	197	181-197	178-197	yes
5D-2	-1505	1000	950	220	206-220	203-220	yes
WASTE MANAGEMENT AREA: L-8 and L-9							
Existing Wells (as of January 1, 1988):							
2Qb-1	-806.27	766.87	953.90	202.50	187.5-202.5	186.5-203.4	yes
2Q-2	-807.00	761.00	953.66	229.60	224.6-229.6	219.5-232.5	yes
4Ja-1	-458.45	1030.09	955.09	210.60	200.6-210.6	197.8-211.6	yes
4J-2	-469.08	1028.92	954.98	228.30	218.3-228.3	216.9-229.3	yes
Additional Wells Required by this Permit:							
5J-1	-530	780	960	211	200-211	197-211	yes
5J-2	-535	780	960	244	218-244	215-244	yes
WASTE MANAGEMENT AREA: L-10							
Existing Wells (as of January 1, 1988):							
4K-1	-467.39	1517.78	967.84	207.40	197.9-207.4	207.9-196.2	yes
4K-2	-467.47	1527.03	968.03	225.60	215.6-225.6	214.6-226.6	yes
3K-1	-645	1270	969.53	213.2	203-213	202.9-217.0	yes
3K-2	-645	1270	969.54	236.4	231-236	230.6-240.6	yes
Additional Wells Required by this Permit:							
5K-1	-970	1270	956	197	188-197	185-197	yes
5K-2	-975	1270	956	223	203-223	200-223	yes

TABLE 2  
 MONITORING WELL SPECIFICATIONS AND COORDINATES  
 (Continued)

Well No. (a)	Location		Elevation (ft)[b]	Well Depth (ft) [c]	Screened Interval (ft) [c]	Filter Interval (ft) [c]	Anticipated Post-Closure Monitoring
	Easting	Northing					
WASTE MANAGEMENT AREA: L-13							
Existing Wells (as of January 1, 1988):							
3S-1	-814.04	-172.11	932.92	193.30	183.3-193.3	182.0-194.0	yes
3S-2	-823.92	-172.99	932.44	216.70	206.7-216.7	205.5-218.1	yes
3Q-1	-231.61	-130.11	969.63	232.70	222.7-232.7	221.5-234.4	yes
3Q-2	-239.04	-140.09	969.50	258.20	248.2-258.2	247.2-259.2	yes
3Ta-1	-37.05	-50.35	972.31	238.30	228.3-238.3	227.1-238.3	yes
3T-2	-47.55	-46.85	972.29	265.30	253.3-265.3	255.3-265.9	yes
2Ua-1	-7.24	346.79	972.80	235.20	220.2-235.2	219.3-235.2	yes
2U-2	-6.24	337.54	972.97	265.70	260.7-265.7	255.2-267.2	yes
5L-1	-676.37	-167.91	940.9	211.71	189.71-211.71	183.11-211.81	yes
5L-2	-665.84	-168.38	941.5	226.14	220.14-226.14	215.94-226.14	yes
5M-1	-424.01	-137.02	960.3	229.02	209.02-229.02	205.52-229.02	yes
5M-2	-425.70	-159.80	958.2	245.52	235.52-245.52	231.52-245.52	yes
5N-1	-9.23	99.07	970.5	235.11	215.11-235.11	212.11-235.11	yes
5N-2	-8.77	107.64	970.4	260.88	244.88-260.88	240.88-260.88	yes
WASTE MANAGEMENT AREA: L-12							
Existing Wells (as of January 1, 1988):							
L-2	-6	1575	976.7	254.0	231.3-251.3	221.3-254.0	yes
Additional Wells Required by this Permit:							
5O-1	-280	840	959	218	199-218	196-218	yes
5O-2	-285	840	959	242	225-242	222-242	yes
5P-1	-90	840	959	221	199-221	196-221	yes
5P-2	-95	840	959	247	228-247	225-247	yes
5Q-1	-6	1168	966	223	206-223	203-223	yes
5Q-2	-6	1163	966	246	230-246	227-246	yes
5R-2	-6.00	1345.00	970	250	229-250	226-250	yes

TABLE 2  
 MONITORING WELL SPECIFICATIONS AND COORDINATES  
 (Continued)

Well No. (a)	Location		Elevation (ft) [b]	Well Depth (ft) [c]	Screened Interval (ft) [c]	Filter Interval (ft) [c]	Anticipated Post-Closure Monitoring
	Easting	Northing					
5S-1	-6	1610	975	221	210-221	207-221	yes
5T-2	-85	1770	975	243	226-243	223-243	yes
<b>WASTE MANAGEMENT AREA: Pond 14</b>							
Existing Wells (as of January 1, 1988):							
D9-1,2	-20.00	2510.00	984.32	236.5	216-236	208-236.5	no
5U-1,2	-98.48	2493.89	975.9	226.20	206.2-226.20	203.7-226.7	no
5V-1,2	-306.41	2577.24	968.0	214.25	194.24-214.25	190.64-214.25	no
<b>WASTE MANAGEMENT AREA: Pond 16</b>							
Existing Wells (as of January 1, 1988):							
4H-1	-895.14	2179.28	960.19	197.00	182.0-197.0	181.0-198.5	no
4H-2	-905.72	2178.84	959.91	202.20	192.2-202.2	191.1-203.2	no
2Wa-1	-721.10	2365.93	961.45	198.40	188.4-198.4	187.2-198.9	no
2W-2	-719.60	2379.60	959.78	200.70	199.7-200.7	198.6-200.7	no
3G-1	-1190	2460	959.8	183.2	173.2-183.2	172.1-185.3	no
3G-2	-1192	2460	957.1	211.0	185.0-188.0	180.7-192.5	no
3E-2	-950	2750	937.34	168.3	156.0-166.0	154.5-168.3	no
Additional Wells Required by this Permit:							
6A-1,2	-720	2180	959	199	189-199	186-199	no
<b>WASTE MANAGEMENT AREA: Pond A</b>							
Additional Wells Required by this Permit:							
6F-1,2	-825	2000	976	225	204-225	200-225	no
<b>WASTE MANAGEMENT AREA: Pond B</b>							
Existing Wells (as of January 1, 1988):							
6B-1,2	-657.16	1842.53	959.64	208.05	188.05-208.05	183.45-208.05	no
6C-1,2	-483.19	1974.96	959.94	207.9	187.9-207.9	184.8-207.9	no

TABLE 2  
 MONITORING WELL SPECIFICATIONS AND COORDINATES  
 (Continued)

Well No. (a)	Location		Elevation (ft) [b]	Well Depth (ft) [c]	Screened Interval (ft) [c]	Filter Interval (ft) [c]	Anticipated Post-Closure Monitoring
	Easting	Northing					
WASTE MANAGEMENT AREA: P-C							
Existing Wells (as of January 1, 1988):							
R-1	-1366.43	1594.17	958.25	186.5	175-185	174-186.5	no
R-2	-1366.43	1588.67	956.85	210	185-205	179-210	no
Additional Wells Required by this Permit:							
6D-2	-1466.43	1517.67	952	207	197-207	194-207	no
WASTE MANAGEMENT AREA: Pond 12							
Existing Wells (as of January 1, 1988):							
3M-1a	-1170.35	1938.20	964.10	199.00	194.0-199.0	193.0-200.0	no
3M-2	1170.58	1948.58	964.13	207.70	202.7-207.7	201.8-208.9	no
Additional Wells Required by this Permit:							
6E-1,2	-1180	2110	964	209	187-209	184-209	no
<u>Background Water Quality Wells</u>							
Existing Wells (as of January 1, 1988):							
A-2	-2651.87	2208.92	951.14	196.10	156.1-196.1	151.1-201.8	yes
C-2	-1914.05	3911.94	945.65	185.50	165.5-185.5	159.5-217.7	yes
K-1	-1920.01	3903.48	945.53	135.00	115.0-135.0	109.0-137.5	yes
3B-1	-2461.10	2361.60	947.37	156.90	146.9-156.9	145.7-158.7	yes
3B-2	-2461.10	2361.60	947.37	185.20	180.2-185.2	178.8-186.9	yes

- NOTES:
- [a] 1. Denotes Level 1 Selah  
 2. Denotes Level 2 Selah
  - [b] Top of Casing
  - [c] Measured from Top of Casing; actual dimensions of new wells subject to field modification.
  - [d] Coordinates and data for wells designated as "Additional Wells Required by this Permit" are estimates only. When these wells are drilled, the information in this table will be updated with "as-built" information. Such updates shall not be considered major permit modifications under 40 CFR §270.41.

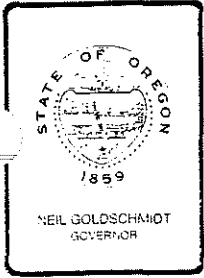
ATTACHMENTS 1 - 25 TO PERMIT

These attachments comprise 4 loose-leaf volumes and are available for inspection at the hazardous waste section.

ATTACHMENT II

Hearing Officer's Report





## Environmental Quality Commission

811 SW SIXTH AVENUE, PORTLAND, OR 97204 PHONE (503) 229-5696

### MEMORANDUM

TO: Environmental Quality Commission

FROM: Linda K. Zucker *LKZ*

SUBJECT: Agenda Item , March 11, 1988, EQC Meeting

#### Hearings Officer's Report on

Proposed Issuance of Joint Permit for the Storage, Treatment, and Disposal of Hazardous Waste to Chem-Security Systems, Inc., Star Route, Arlington, OR 97812, Permit No. ORD 089452353

A public hearing was held at 7:30 p.m. on October 6, 1987 to receive comments on the issuance of a permit to Chem-Security.

Richard Zweig, General Manager of the Chem-Security facility, presented extensive written comment which is addressed in the DEQ staff report.

Alice Weatherford-Harper, urged three preconditions to granting the permit: Establishment of a citizen advisory committee to oversee operation of the site; upgrading Cedar Springs Road; and placing agency inspection reports in the Gilliam County Public Library for public access. Written testimony available.

Della Heideman, a site employee, testified to Chem-Security's commitment to environmental protection, employee safety, and compliance with state and federal regulations. Written testimony available.

Richard Harper, co-chairperson of Concerned Oregonians for Proper Waste Disposal (COPWD), requested that DEQ form a local citizen advisory committee to review siting, operation, closure and long-term monitoring of the site. COPWD would condition the permit on Cedar Springs Road being brought to current Department of Transportation road standards. Written testimony available.

Richard Parrish, of Northwest Environmental Advocates, supports the DEQ/EPA expanded groundwater monitoring program; urges establishment of a citizen advisory committee; and requests that air emissions from the site be addressed. Written testimony available.

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Jeff Detlefsen, attorney, requested that each permit condition identify the statute or rule authorizing it.

Les Ruark asked that permit issuance be conditioned on establishment of a citizen advisory committee to provide a forum of record for citizen comment; to provide a means of citizen - site management contact; to keep the community informed; to pursue transportation improvements; and to provide accountability to the community. He provided suggestions for composition and operation of the Citizen Advisory Committee. Written testimony available.

Linda K. Zucker:y  
HY6714  
February 2, 1988

ATTACHMENT III

Response to Comments

OREGON DEPARTMENT OF ENVIRONMENTAL QUALITY  
AND  
U.S. ENVIRONMENTAL PROTECTION AGENCY

JOINT RESPONSE TO PUBLIC COMMENTS  
ON  
CHEM-SECURITY SYSTEMS, INC. AUGUST 14, 1987 DRAFT RCRA PERMIT

MARCH 11, 1988

The public comment period for this permit began on August 14, 1987 and continued through October 9, 1987. In addition, a public meeting/public hearing was held in Arlington, Oregon on October 6, 1987. The majority of the written comments were received during the public hearing, the majority of which (over 200 pages) were submitted by Chem-Security System, Inc. (CSSI).

This response has been prepared jointly by the Department of Environmental Quality (DEQ) and the Environmental Protection Agency, Region 10 (EPA). This document addresses all of the comments received, with the exception of several comments, which simply supported issuance of the permit. These supportive comments were received primarily from generators of hazardous waste which utilize the CSSI facility for waste disposal. Each response to comment will identify the individual or group who made the comment. The responses to CSSI's comments are quite lengthy and, therefore, are included after all other comments.

An Information Sheet was sent to all persons on the DEQ's and EPA's mailing list for CSSI permit related issues. This sheet highlighted the more significant changes to the permit. In addition to these changes, numerous minor changes and corrections to the draft permit have been made. These changes have resulted in a permit which the agencies believe is more enforceable and easier to understand. CSSI proposed modified language for certain specific permit conditions and, where appropriate, the agencies accepted that language.

The DEQ and EPA do not believe that the changes which were made to the draft permit were substantive enough to require a second public comment period for a revised draft permit. Therefore, the agencies are issuing a final permit at this time. All of the written comments and testimony received at the October 6, 1987 public hearing have been considered in finalizing the permit conditions. The final permit is being issued concurrently with this response to comments.

The permit issuance is a tripartite action of the DEQ, EPA, and the Environmental Quality Commission (EQC). Permit conditions regarding storage and treatment that are issued under the authority of DEQ shall be effective upon issuance of the final permit decision. The state's permit decision may be appealed within 20 days of notification of the final decision (OAR 340-11-107).

The permit decision may be appealed to the EQC as a contested case hearing, in accordance with OAR 340 Division 11 or any other procedure adopted by the EQC governing a contested case hearing on this permit. The EQC's final decision upon a contested case hearing shall be subject to judicial review under ORS 183.482. Since an EQC contested case would usually not be available for appeal of the permit conditions regarding disposal (ORS 466.140), the opportunity for a contested case must be provided by EQC order [ORS 183.310(2)(a)(D)]. Thus, when the EQC votes to issue this permit, it will also vote to provide the opportunity for a contested case appeal.

Permit conditions issued under the authority of the EPA shall become effective 30 days after notification to interested parties of the final permit decision (40 CFR §124.5), unless such permit conditions are the subject of a petition for review to the Administrator in accordance with 40 CFR §124.19. If a petition for review is granted, any contested permit condition is stayed (40 CFR 124.16) and the Permittee must follow applicable interim status standards (40 CFR Part 265) pending final agency action. A petition for review of conditions issued under EPA authority must be filed within 30 days after the final permit decision.

A copy of the final permit, and any future modifications to the permit, will be maintained at the DEQ offices in Portland and Pendleton, at the EPA offices in Portland and Seattle, and at the Arlington Oregon Public Library.

## PUBLIC COMMENTS

### A. COMMENT:

Several commenters, including representatives from the Oregon Environmental Council (OEC), Concerned Oregonians for Proper Waste Disposal (COPWD), and Northwest Environmental Advocates (NEA) requested that the agencies establish a Citizen Advisory Committee (CAC) to oversee operation of the site and to improve communication between CSSI and the public. Some of the reasons given for the CAC are:

1. To open the oversight process to interested members of the community, guaranteeing access to information about the continued operation of the facility. (Comment by NEA)
2. To judge the performance of the applicant with respect to the public and/or community. It would be helpful to have CAC reports during relicensing opportunities. (Comment by Alice Weatherford-Harper)
3. To disseminate factual information to the community regarding the Chem-Security site -- to insure the completeness of such information. (Comment by Les Ruark)

### RESPONSE:

The DEQ has carefully reviewed the many comments on the establishment of a CAC and agree that it is very important to set up open lines of communication between the agencies, the public, and the permitted facility. However, it is DEQ's judgement that a CAC may not be the best vehicle to accomplish this at a fully permitted facility. Such a committee would certainly be useful and serve a good purpose during the process for siting a new facility or during a major review or revision to an existing permit. To facilitate communication and review performance under an operating permit, the DEQ would like to suggest the following course of action. It would set up a community information program which will ensure a comprehensive flow of information to the public and provide adequate opportunity for the public to interact, as needed, with the DEQ, as regulator, and the facility. The DEQ's community information program will be set up outside the permit; Attachment IV is a description of this program.

The EPA does not have statutory or regulatory authority to address this issue in the permit. Therefore, the EPA will defer to the DEQ in its decision to establish a community information program. The EPA will provide information and assistance for DEQ's community information program on an "as needed basis".

B. COMMENT:

Several commenters, including OEC, Alice Weatherford-Harper, COPWD, and NEA requested that the agencies require CSSI to upgrade Cedar Springs Road. A typical comment is as follows:

"...as a condition of the Part B Permit, COPWD requests the regulatory agencies to require that Cedar Springs Road be brought up to current Oregon Department of Transportation standards to facilitate the traffic it now carries to ensure human health and safety."

RESPONSE:

Neither the DEQ or the EPA have the statutory or regulatory authority to require road improvements outside of the facility. However, the comments do have merit and are being forwarded to the appropriate jurisdiction (Attachment V).

C. COMMENT:

The following comment was made by the OEC, in regard to permit condition I.Z.:

"The proposed use of Disposal Request authorizations by the Department prior to acceptance of any waste at the CSSI facility is a good mechanism for interface with the Department's new Waste Reduction Program, in that it affords the Department an opportunity to target generators of certain waste streams for waste reduction assistance and it allows the Department to re-route certain wastes into the proper Waste Exchange program."

RESPONSE:

The DEQ is dropping the Disposal Request procedure. Attachment 11 to the permit contains a list of wastes which may be accepted at the facility and a list of those wastes which may not be accepted.

There is, however, still an opportunity to interface with the Department's waste reduction program, in that the DEQ receives a monthly report of all wastes accepted by the site, affording ample opportunity to target appropriate generators for waste reduction assistance.

D. COMMENT:

The following comment was made by the OEC, in regard to permit condition II.H.:

"The Contingency Plan submitted by CSSI should include more emphasis on training local fire and police departments to ensure their ability to cope with any emergency situations generated at the facility."

RESPONSE:

The Contingency Plan calls for the primary response to any emergency situation generated at the facility to be handled by site personnel, with offsite assistance as backup. The agencies believe that the training given to the local fire department, including an annual tour and response review on the site, is adequate to meet the intent of the regulations. Likewise, the agencies believe that the review of the contingency plan by the local police is adequate to meet the requirements of the regulations.

The DEQ and the EPA have been advised by legal counsel that there is no federal or state authority to require CSSI to provide any more intensive training or to provide funds to support such training.

E. COMMENT:

The following comment was made by the OEC, in regard to permit condition II.J.(12)(c):

"This section of the Fact Sheet indicates that the list of Appendix VIII parameters are restricted to those for which analytical methods are available. Will those parameters to be used be expanded as new analytical methods become available? Does the permit language allow for inclusion of new methods? If not, it should."

RESPONSE:

The Permittee will be required to use new Appendix VIII test methods at such time as the methods become available and are included in EPA SW-846 ("Test Methods for Evaluating Solid Waste, Physical/Chemical Methods"). It is expected that the number of parameters measured will be expanded as new analytical methods become available. The development of analytical methods is not a regulatory change, but rather is simply a method of providing guidance for a regulatory requirement in an area where guidance was not previously available.

F. COMMENT:

The following comment was made by the OEC, in regard to permit condition II.J.(15):

"This section addresses the closure plan, and mentions that 'the plan should also include an evaluation of the accumulation of contaminants outside the waste management areas due to wind dispersal.' Such an evaluation should be ongoing during operation of the facility, and not done only as part of a closure plan."



RESPONSE:

Section D.7.7 of Attachment 23 of the permit describes the steps that will be taken to control the wind dispersal of wastes. The agencies believe that these procedures are adequate for an active land disposal facility. The testing referred to during closure is simply a mechanism to ensure that airborne contaminants have not accumulated outside the waste management units in concentrations that would be of concern after facility closure. If significant contamination is found at that time, CSSI will be required to take appropriate remedial measures.

Additionally, the EPA is presently developing regulations, to be promulgated pursuant to the Hazardous and Solid Waste Amendments of 1984 (HSWA), that will address air emissions from hazardous waste management facilities. Such standards can be applied to CSSI when the permit is reviewed (five years after the effective date of the permit) or when DEQ adopts this regulation as a state rule, whichever comes first.

G. COMMENT:

The following comment was made by the NEA, in regarding the fact that air emission standards have not been specified in the permit:

"Our principal concern remains with the potential for hazardous air emissions from the hazardous waste landfills and surface impoundments. Despite some cursory data collection by the applicant and modeling by the EPA, there does not appear to have been any concerted effort to determine whether air pollution controls are warranted at this facility. It has been noted that there are no state or federal regulations addressing air emissions from the hazardous waste treatment, storage and disposal (TSD) facilities. One of the reasons for lack of regulations is the lack of hard data about the extent of the emissions and any possible health or environmental risks associated with them. We encourage both EPA and DEQ to use this permitting opportunity to require the applicant to monitor air emissions from various units at the facility and provide the agencies with detailed reports on type and amount of emissions, correlated with types and amounts of hazardous wastes being disposed in such units.

Section 3004(n) of the 1984 Amendments to the Resource Conservation and Recovery Act directed EPA to develop regulations for the 'monitoring and control of air emissions at hazardous waste treatment, storage, and disposal facilities, including but not limited to open tanks, surface impoundments, and landfills, as may be necessary to protect human health and the environment.' 42 U.S.C. 6924(n). Though such regulations were supposed to have been promulgated by May 8, 1987, none have been adopted to date. The EPA is developing comprehensive air standards for TSD facilities, but does not yet have sufficient data about the emissions to support the required regulations. See 52 Fed. Reg. 2748 (February 5, 1987). DEQ and EPA/Region X should not miss the opportunity to require the applicant to provide the necessary data to determine whether hazardous air emissions from landfills and surface impoundment present a potential health concern."

## RESPONSE:

There are two basically different approaches to managing air quality: 1) air quality modeling; and, 2) emission technology. For the first approach, the air emissions are measured, for use in a dispersion model to estimate the amount or concentration of airborne contaminants at the nearest residences. Then, using acceptable dose information to estimate risk of injury to human health, back calculate an allowable level of airborne contaminants at the emission source. The final step is to specify emission control techniques or devices to achieve these allowable levels. The second approach is to select, regardless of air quality, the best demonstrated available technology (BDAT) to minimize the potential for airborne contamination.

At this time, health based data for inhalation of RCRA wastes (reference doses [RfD's] and cancer potency factors) have not been well established. For instance, there is no consensus on the methodology to establish inhalation RfD values. Although EPA has been directed to develop air monitoring and emission control standards, this has proven to be a difficult task. To date, neither monitoring methods nor control standards have been developed. In fact, very basic issues such as whether to monitor for all volatile organic compounds (VOC's) as a group or as individual constituents has not been decided. Coupling this information with the fact that CSSI owns a substantial amount of land around the hazardous waste management area (buffer zone) and the nearest resident is over a mile away, led the agencies to conclude that the monitoring and modeling approach, as described above, was not the preferred choice at this time.

Not only do the agencies lack guidance and continuity on development of health based standards for the various hazardous constituents, there is also a lack of consensus on the criteria and methodology to implement an air monitoring program for a site such as this. If the agencies were to proceed with specifying an ambient and/or emission monitoring system to gather data at this time, three major problems would be encountered. First, there is no assurance that the method selected would correlate with the method that EPA will finally select. Without such a correlation, the generation of data by CSSI may be of little value. Second, without air quality standards, the agencies have no ability to correlate the ambient data collected by CSSI to acceptable levels. Therefore, the agencies would not be able to use the emission data collected as a basis to require operational changes at the site, through permit modifications. Third, in the absence of established methodologies and standards, as mentioned above, the agencies would be asking CSSI to gather air emission and/or ambient data as a research project, without any regulatory basis.

If EPA promulgates the air regulations prior to the five year review of this permit, the agencies have the liberty of including the necessary air monitoring requirements in the permit at that time. Additionally, if EPA promulgates air regulations in the near future, but after the effective date of this permit, the DEQ, upon adoption of those regulations, can require CSSI to immediately comply with the new rule. Additionally, the DEQ can require the permit to be modified at that time, using the newly adopted rule as the basis for the modification.

The DEQ is also in the process of developing a regulatory program to address the problem of hazardous air contaminants. An interim program for controlling these pollutants is being applied to new sources, and those undergoing major modifications, as part of the existing permit review process. A strategy for expanding this review to include existing sources is being considered. It is anticipated that a set of regulations will be finalized within the next year. After adoption, modifications can be made to the permit to reflect these new rules if necessary.

The above discussion should not imply that the agencies are ignoring air emissions or that work is not being done to develop the necessary standards. In the meantime, although the agencies are not aware of any specific problems at this site, we have addressed air emissions through various permit conditions as a safeguard.

The HSWA provisions have done much to eliminate the problem of VOC emissions since the land disposal restrictions rule has set strict standards on the concentration of VOC that can be placed in surface impoundments and landfills. Additionally, certain types of site management practices required under this permit will help to reduce particulate emissions from landfills. For example, dust suppressants and daily cover of waste will be used to minimize the potential for fugitive dust emissions from landfill cells. Prior to storage of volatile organic waste in the bulk liquid storage tanks, CSSI will be required to provide a carbon filtration system to minimize the release of volatiles through the tank vent system. The agencies believe that such restrictions and source controls are examples of good management practices and, by themselves, will provide a reasonable level of safety until the air regulations can be imposed at this facility.

H. COMMENT:

The following comment was received from Kurt H. Lebbert, regarding the site location:

"Why is the proposed site so close to a major waterway?"

RESPONSE:

The site was opened in 1976, and is approximately six air miles from the Columbia River. It should be noted that extensive hydrogeologic characterization of the uppermost aquifer beneath the facility has been shown to flow in the opposite direction of the river. Horizontal flow in this aquifer is relatively slow (about 35 feet per year) and corrective action can be instituted within a short time, if contamination is found.

I. COMMENT:

The following comment was received from Alice Weatherford-Harper, regarding access to facility records:

"I recommend placement of all current and future copies of inspection reports in the Gilliam County Library for easy public access."

RESPONSE:

The DEQ agrees to contact the Gilliam County Library for permission to place all current and future nonconfidential inspection reports for CSSI at the library. Rather than include this as a permit condition, DEQ would prefer to implement an internal procedure to ensure that all such documents are placed at the library.

NOTE: THE REMAINDER OF THIS DOCUMENT CONTAINS COMMENTS SUBMITTED BY CHEM-SECURITY SYSTEMS, INC. AND THE AGENCIES' RESPONSES TO COMMENTS.

(Page numbers next to each comment refer to the page numbers of CSSI's comments.)

#### GENERAL COMMENTS

Comment 1: (page 2) The Permit Must Identify the Conditions Based on EPA's Authority and Enforceable by EPA, and the Conditions Based on the DEQ's Authority and Enforceable by the DEQ.

(Note: Mr. Jeff Detlefsen, a private citizen, expressed this same concern at the October 6, 1987, public hearing in Arlington, Oregon.)

DEQ and EPA have identified conditions in the permit which are included under state authority, federal authority, and concurrent state and federal authorities. This separation was done in a tabular format and will be included in the final permit. At this time, many of the conditions remain in the "concurrent authority" section because of the overlapping state/federal authorities for these conditions.

The final permit will be issued as a "joint permit". This means that there are essentially two distinct and separate permits combined into a single document. DEQ and EPA believe that a joint permit is less of a burden to all parties concerned.

The State of Oregon has authority over all conditions for which it has been authorized. In addition, the state has authority for conditions based on state rules, even if such rules are not part of the program authorization granted by EPA. The EPA has jurisdiction for all conditions which pertain to new statutory authority [Hazardous and Solid Waste Amendments of 1984 (HSWA)]. EPA will maintain such authority until the state adopts the necessary HSWA rules and receives authorization from EPA for the HSWA related portion of the program.

It should be noted that the state adopted a major portion of the HSWA rules on December 11, 1987. Table 1 indicates that EPA maintains concurrent authority with DEQ for these rules. When DEQ receives authorization from EPA for this portion of the program, Table 1 will be revised to indicate that the affected permit conditions have changed from "Concurrent Department/Agency Authority" to "Department Authority" and will be sent to all parties who are maintaining a copy of the final permit. In addition, certain revised pages of the permit will be distributed to these parties to indicate revisions to specific permit conditions. This step is necessary when specific conditions contain statements regarding which agency has authority and is impacted by a change to Table 1. These changes will be made only for the purpose of updating the permit and clarifying which agency has authority for the specific permit conditions. The substance of the conditions will not be changed and, therefore, this process will not require a permit modification under 40 CFR §270.41.

Finally, Senate Bill 138 and its legislative history indicate that the DEQ has authority to require CSSI to comply with all rules adopted pursuant to legislation other than that of SB 138 itself. This means that, while the DEQ may not require CSSI to comply with OAR Chapter 340 Division 120 in the issuance of this permit, DEQ will enforce all other rules, based on legislation other than SB 138.

It is important that both the DEQ and EPA preserve their independent authorities under their separate jurisdictions. This necessitates that both the state portion and the federal portion of the joint permit be able to stand alone, as legally enforceable documents. This is the primary reason that the table includes so many conditions in the "concurrent state/federal authority" category. As an example, the same boilerplate or standard conditions are necessary to make an EPA HSWA permit condition enforceable as are required for for a non-HSWA condition.

Comment 2: (page 8) Certain Permit Conditions Impose Requirements Beyond Those Required by 40 CFR Part 264.

CSSI has provided lengthy comments that pertain to general issues. Upon review of all of CSSI's comments, it appears that all of these general comments have been raised again in the specific comments that begin on page 44 of CSSI's document. Since it is difficult to respond to comments of a general nature and since CSSI's concerns are reiterated as more specific comments, DEQ and EPA have chosen to address concerns raised in this comment in their response to each specific condition.

As a general response, DEQ and EPA believe that they have not exceeded their authorities with the conditions in the draft permit. However, in many cases, the authorities have been more clearly defined in the response to CSSI's specific comments and in the final permit. The agencies have used the precise wording of 40 CFR Part 270, wherever possible, rather than modifying this language.

As a final point, the agencies realize that the content of a permit could give a competitive advantage to one facility over another. To this end, the agencies, particularly EPA, have attempted to maintain continuity of permit conditions and regulatory interpretations as it applies to other similar facilities within Region 10 and nationally. Certain conditions of this permit have been tailored to the CSSI facility; and therefore, may not be consistent with those conditions specified for land disposal facilities in other states. Permits for all facilities need not be identical. As an example, it is necessary to consider the geological and climatological setting when establishing certain permit conditions for any facility.

Comment 3: (page 14) The Permit Erroneously Incorporates Descriptive Material from the Permit Application in Permit Conditions.

Throughout the CSSI Part B application, descriptive material, supporting documentation, rationale, calculations, etc., have been mingled with the design and operating procedures. This type of organization, on the part of the applicant, makes it virtually impossible to separate out the strictly enforceable language in the application and to then include it, by reference, as an attachment to the permit. The agencies did go through the entire Part B application prior to issuance of the draft permit for the purpose of excluding those sections which were clearly provided as supporting information and were not considered to be enforceable. The result was that the nine volume Part B application and the six volume hydrogeologic characterization report were condensed into a four volume permit.

The permit application is intended as the source of information on how the facility will be designed and operated. Therefore, it is intended to be a document that contains specific language. The agencies worked with CSSI for several years to obtain the level of detail and specificity that is now included in the Part B application. The agencies believe that the same level of detail must be maintained in the final permit.

DEQ and EPA have reviewed the specific Attachments mentioned in CSSI's comment and offer the following responses:

A. (page 18)

Attachment 6: Hazards Prevention  
Attachment 12: Container Storage -- Design and Operations  
Attachment 13: Bulk Liquid Storage -- Design and Operations  
Attachment 14: Stabilization Unit -- Design and Operations  
Attachment 23: Landfill -- Design and Operations

DEQ and EPA have reviewed these Attachments and agree that some amount of descriptive material is contained in each one. The agencies do not wish to attempt deletion of such material from CSSI's text. As stated earlier, it would not be possible to remove portions of the Attachments and still incorporate them by reference. Further, CSSI has specifically requested that the agencies not modify their permit application and then attach it to the permit by reference. The agencies agreed not to do this because of the potential for confusion that could be created by adding or deleting language, thereby changing CSSI's original intended wording.

Since 1983, CSSI has known that the agencies intended to include sections of the application, by reference, into the permit. In order to accommodate CSSI's concerns on this issue at this point in time, the agencies would have to remove these Attachments and reconstruct them, using their own wording. The agencies do not believe that such an effort would result in benefit to themselves, CSSI, or the public. If CSSI wishes to make such an effort, it may reconstruct the Part B application at any time, using a format that fits its specified criteria, and submit it to the agencies in the form of a permit modification request. If approved, an entire Attachment(s) could be replaced as a permit modification.

A.(sic) (page 19)

Attachment 4: Inspection Plan

DEQ and EPA will not delete the inspection forms from this Attachment. The agencies realize that minor changes to the forms will be necessary during the term of this permit and have provided for such minor changes in specific permit conditions [see permit conditions II.E.(4) through II.E.(4)(c)]. The procedure for minor changes is set forth in these conditions and, therefore, CSSI's proposed language, "or its equivalent", is unnecessary.

B. (page 20)

Attachment 10: Facility Closure and Post-Closure Plans -- Cost Estimates

DEQ and EPA agree to remove this Attachment, which consists of the cost estimates, from the permit. The permit will simply require that the cost estimates be updated and maintained at the facility, in accordance with the regulations.

C. (page 20)

Attachment 11: RCRA Part A Permit Application

DEQ and EPA agree that much of the information that is included on the Part A application is redundant to the material in the Part B and could result in confusion as permit modifications occur and capacities of units change. The Part B information is more detailed and, therefore, much of the Part A information can be deleted. The two items that are necessary for inclusion in Attachment 11 are the owner/operator certifications and signatures and the list of wastes that will and will not be accepted at the facility. The agencies will revise the Attachment to include these items only.

D. (page 21)

Attachment 19: Landfill/Impoundment Technical Specifications

The information provided by CSSI in this Attachment was deemed necessary by DEQ and EPA to evaluate the construction of these units. The agencies' acceptance of the description provided was based on all of the information submitted. CSSI is now asking that certain information in this Attachment be deleted from the permit. This would mean that if CSSI decided to deviate from what the agencies had accepted in the permit application, it could do so without being in violation of the permit. This is unacceptable and Attachment 19 will remain in the permit in its present form.



E. (page 22)

Attachment 20: Soil Liner Details

Attachment 21: Synthetic Liner Details [Exhibit 5B Only]

DEQ and EPA disagree with CSSI's assertion that these Attachments are unnecessary to the permit and that they provide excessive detail. As stated in previous comments, the agencies believed that this level of detail was necessary in the Part B application. The requirement to provide this level of detail would be meaningless unless it was to be required in the permit as an enforceable condition. This information provides a description of the construction that supplements the design drawings. The agencies have never stated that design drawings, by themselves, were adequate for purposes of construction. These Attachments will remain in the permit in their present form.

F. (page 23)

Attachment 25: Surface Water Management Plan

CSSI is correct that 40 CFR §264.301(f) through (h) is the basis for Section VII of this permit, which incorporates Attachment 25, by reference. 40 CFR 264.301(f) through (h) provides a general performance standard that must be maintained. Attachment 25 explains how that standard will be maintained at this facility. Incorporation of Attachment 25 into this permit is totally appropriate and this Attachment will not be deleted.

G. (page 23)

Attachment 26: Groundwater Monitoring Plan

**Note:** Attachment 26 has been renumbered in the permit as Attachment 10. This was done to avoid having a blank space in Attachment 10, since the previous Attachment 10 (Closure and Postclosure Plans --Cost Estimates) has been deleted from the permit.

DEQ and EPA agree to remove the pages which describe the operation and maintenance procedures for the "Well Wizard" pumps. However, there is no basis for deletion of "Attachment 26, Appendix C", from permit condition IX. E.(6), as requested by CSSI. Compliance with the procedures of Appendix C, as reviewed in the Part B application, was the agencies' basis for determining that the procedures were adequate. Without specific reference to this Appendix, CSSI could modify its procedures, at will, without being in violation of the permit. Therefore, Attachment 26 (now Attachment 10), Appendix C will remain in this permit, with the exception of the "Well Wizard" information mention above.

## SPECIFIC COMMENTS

### LIST OF ATTACHMENTS

#### 1. (page 26)

##### Comment Regarding All Attachments

DEQ and EPA realize that, in some cases, CSSI has referenced exhibits or attachments that are not contained in this permit. For clarification, the agencies will add the following statement to the introductory language of this permit where inclusion of Attachments by reference is first discussed:

"In some cases, within the Attachments to 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 comply with the procedures of those referenced documents, even though they are not physically contained in this permit. The Permittee must maintain a set of such referenced documents at the facility".

The agencies have agreed not to physically modify CSSI's attachments in any way. If CSSI wishes to delete information in the attachments which it believes is extraneous to the permit, it may submit revised pages to the attachments as a permit modification request.

#### 2. (page 26)

##### Attachment 1: Facility Legal Description and Map of Facility Location

DEQ and EPA agree to update the Facility Legal Description by replacing the existing Figure with the revised figure provided by CSSI. This correction provides the latest information on the property owned by CSSI.

#### 3. (page 27)

##### Attachment 6: Hazards Prevention

DEQ and EPA agree to accept CSSI's proposed changes #1a, #1b, and #1c. The revised pages meet the regulatory requirements and the revised language is as accurate and enforceable as the language contained in the draft permit condition. The revised pages provided by CSSI will be included in the final permit.

Change #2, as requested by CSSI, is not acceptable. Although it is agreed that not all the information on pages E-1 to E-13 is pertinent, the agencies believe that the following sections define conditions which are necessary to ensure safe operations at the facility: E.1.1, E.1.4, E.1.5, and E.2. As such, only page E-6 is extraneous; however, its removal would be confusing to a reader of the Attachment.

Also, contrary to CSSI's assertion, the agencies believe that the section on power outages defines the minimum expectation of site functioning which would be expected in an emergency.

4. (page 28)

Attachment 7: Contingency Plan

DEQ and EPA agree to revise this Attachment by inserting the new pages provided by CSSI. The revised pages meet the regulatory requirements and the revised language is as accurate and enforceable as the language contained in the draft permit condition.

5. (page 29)

Attachment 8: Closure and Postclosure Plans

DEQ and EPA agree to revise this Attachment by inserting the new pages provided by CSSI. The revised pages meet the regulatory requirements and the revised language is as accurate and enforceable as the language contained in the draft permit condition.

6. (page 29)

Attachment 11: RCRA Part A Permit Application

This comment has been adequately addressed by the agencies' response to CSSI's general comment number 3C. No further change or response is necessary.

7. (page 31)

Attachment 12: Container Storage -- Design and Operations

DEQ and EPA have completed review of CSSI's revised design and operation for container storage and believe it is adequate to meet the requirements of 40 CFR Part 264, Subpart I. Therefore, the agencies will replace the previous Attachment 12 with the revised Attachment 12, submitted by CSSI as Exhibit 5 of its comments.

8. (page 33)

Attachment 14: Stabilization Unit -- Design and Operations

The issue of stabilizing unmanifested free liquids which may be received at the site has been addressed in specific permit conditions, [IV.D.(5)(a) and IV.D.(5)(b)]. Refer to response numbers 77 and 78, which pertain to specific permit conditions. In addition, the agencies will add the footnote to Attachment 14, as provided in the Exhibit to CSSI's comment.

9. (page 33)

Attachment 17: Surface Impoundment Units -- Design and Operation

DEQ and EPA agree to revise this Attachment by inserting the new page provided by CSSI. The revised pages meet the regulatory requirements and the revised language is as accurate and enforceable as the language contained in the draft permit condition.

10. (page 34)

Attachment 18: Impoundment Drawings

DEQ and EPA agree to include Revision 18 to the permit application and the material contained in that revision will become part of Attachment 18. The revised pages meet the regulatory requirements and the revised language is as accurate and enforceable as the language contained in the draft permit condition.

11. (page 35)

Attachment 22: Response Action Plan, Exhibit 21-A

CSSI has requested that DEQ and EPA revise several pages of this Attachment, but has not provided proposed replacement pages. As previously stated, the agencies, at CSSI's request, will not revise any portion of the Part B permit application. Therefore, this Attachment will not be modified at this time.

The following are the agencies' responses to the specific requests made by CSSI to modify Exhibit 21-A of Attachment 22:

Pages 17 and 18: These changes are acceptable and CSSI may provide replacement pages for this Attachment as a permit modification request, referencing the EPA leak detection rule as the basis for the modification.

Pages 14 and 16: DEQ and EPA will not increase the ALR for cells 1 and 2 of landfill 13. The basis for this decision is explained in the agencies' response number 111 of this document, as it pertains to permit condition VI.B.(7)(f).

Pages 19 and 21: CSSI's proposed changes are unacceptable. CSSI has provided no information on what the phrase "or other appropriate action has been taken" means. The agencies will not include such a subjective statement in a permit condition.

12. (page 37)

Attachment 22: Response Action Plan, Exhibit 21-C [NEW]

DEQ and EPA have agreed to include Exhibit 21-C as part of Attachment 22. However, specific permit conditions have been added that tie the ALR and the rapid and large leakage values to the same numbers used for cells 1 and 2 of landfill L-13. Refer to the agencies' response numbers 111 and 112 of this document, as they pertain to permit conditions VI.B.(7)(f) and VI.B.(8).

13. (page 41)

Attachment 23: Landfills -- Design and Operation

DEQ and EPA agree to revise this Attachment by inserting the new page provided by CSSI. The revised pages meet the regulatory requirements and the revised language is as accurate and enforceable as the language contained in the draft permit condition.

14. (page 42)

Attachment 25: Surface Water Management Plan

DEQ and EPA have approved the design of the surface water management system, even though the containment areas were designed with synthetic liners. The use of such liners will only serve to improve the system and will result in an environmental benefit. The agencies, as previously stated will not modify any of CSSI's language contained in the Attachments, but will add the following specific language to permit condition VII.A.(1):

"The Permittee, at its discretion, shall be allowed to install a clay and/or synthetic liner system in any portion of the surface water management system. Such a design change shall not require a permit modification under 40 CFR §270.41."

DEFINITIONS

Definition g, "Regional Administrator" or "Director" (page 43)

CSSI's objection to this definition relates to the issue of whether the State of Oregon can enforce any permit conditions for which it has not received authorization from EPA. The agencies' answer to this issue is included in their response to General Comment #1 of this document. Based upon that rationale, this definition will not be changed.

## I. STANDARD CONDITIONS

### 1. I.B. (p. 44)

This condition is well within the authority of the agencies and, therefore, it will remain in the permit. This condition is clearly intended to protect the agencies and other parties listed from acts of negligence by CSSI, rather than acts of their own negligence. However, since CSSI's proposed language is consistent with the agencies' intent and provides clarifying information, DEQ and EPA agree to add the following language to the existing condition:

"The Permittee shall not, however, hold harmless and indemnify the above entities for any claim, suit or action against any of them arising from their own negligence."

Finally, DEQ and EPA will change the title of this condition from "Personal Liability" to "Hold Harmless".

### 2. I.C. (p. 46)

The Fact Sheet contained only a partial reference for this condition. In addition to 40 CFR §270.30(g), 40 CFR §270.4 (b) and (c) should have been referenced as the basis for this condition. DEQ and EPA will revise this permit condition to reflect the wording of 40 CFR §270.4(b) and (c). The phrase "outside the facility", as proposed by CSSI, will not be included.

### 3. I.D.(1) (p. 47)

DEQ has the authority to modify, revoke and reissue, or terminate any permit condition for which it has authority, without regard to federal authorization. The permit condition will ~~not~~ be modified. For those conditions which have concurrent federal/state authority, DEQ and EPA shall coordinate regarding their respective permit actions listed above.

4. I.E.(1) (p. 47)

40 CFR §124.16 is not part of the authorized state program (see OAR 340-106-002). Under the state rules, a stay of a contested permit condition is discretionary, but not automatic. Under federal rules, the stay of contested permit conditions is automatic (see 40 CFR §124.16). Therefore, the issue of whether a contested permit condition is automatically stayed is dependent on whether that condition is included under federal authority, state authority, or concurrent federal/state authority.

If the contested condition is included under concurrent federal/state authority, both federal and state administrative procedures apply and petition for review would have to be submitted to both agencies. In this case, a contested condition would be automatically stayed under federal rules (40 CFR 124.16), but it would not be automatically stayed under state rules (OAR 340-106-002).

DEQ and EPA agree to revise this permit condition to clarify the difference between procedures for federal and state authorized conditions.

5. I.E.(2) (p. 48)

DEQ and EPA agree to revise this condition to reflect the language proposed by CSSI. The revised wording is based on the precise language of the applicable regulation.

6. I.F.(1) (p. 49)

DEQ and EPA agree to revise this condition to reflect the language proposed by CSSI. The revised wording provides a more accurate and clear interpretation of the applicable regulation.

7. I.F.(2) (p. 50)

DEQ and EPA have added a clarifying statement to this condition, stating that compliance with this permit does constitute compliance with the portions of the regulations upon which this permit is based. A statement that compliance with this permit constitutes compliance with regulations which are not included in the permit would be technically incorrect and inappropriate.

8. I.G. (p. 51)

DEQ and EPA agree that the wording of this condition differs slightly from the precise wording of 40 CFR §270.30(b), but disagree with CSSI that the intent of the regulation has been altered. However, due to CSSI's objection, DEQ and EPA will use exact wording from the regulation for this condition. CSSI should be aware that their proposed wording and rationale is an erroneous interpretation of this regulation. CSSI is indicating that they do not have to reapply for a permit until the existing permit has expired. At the same time, they are stating that they will comply with 40 CFR §270.10(h), which clearly requires that a new application be submitted at least 180 days prior to expiration of the existing permit. This creates a contradictory situation, making it impossible for CSSI to be in compliance. The permit condition will be modified to reflect the exact language of 40 CFR §270.30(b) and to require compliance with 40 CFR §270.10(h).

9. I.H. (p. 52)

CSSI has proposed four language changes to the permit condition in this comment. DEQ and EPA agree to revise this condition to reflect the first two proposed changes. The revised wording provides a more accurate and clear interpretation of the applicable regulation. The third proposed change, adding "as it pertains to land disposal", is not acceptable because 40 CFR §270.50(d) calls for review of the permit for the entire land disposal facility and not solely the land disposal units at the facility. The fourth proposed change, "by the Agency", is an attempt to drop DEQ from the five year review. This is not acceptable since DEQ adopted 40 CFR §270.50(d) on December 11, 1987.

In the response to General Comment #1, DEQ has explained that it has authority to require CSSI to comply with all rules adopted by the state, regardless of whether such rules are part of the state program authorized by EPA.

10. I.L. (p. 53)

DEQ and EPA agree that specific language of 40 CFR §270.30(h) was not included in this condition and will now include the specific language, "within a reasonable time" and "request", as proposed by CSSI. DEQ and EPA disagree that CSSI has the right to charge the agencies for copies of records that they may request for the reasons stated in this permit condition. There is no regulatory basis for CSSI's assertion that payment is necessary. The permit condition will be changed to reflect the wording of 40 CFR §270.30(h), i.e., "within a reasonable time" and "request". The revised wording provides a more accurate and clear interpretation of the applicable regulation. CSSI's proposal that the Director and Administrator pay CSSI for charges associated with copying records will not be included in the permit.

11. I.M. (p. 54)

DEQ and EPA agree to revise the permit condition to include the language as proposed by CSSI. The revised wording provides a more accurate and clear interpretation of the applicable regulation.



12. LM.(1) and I.M.(2) (p. 55)

DEQ and EPA agree to the revise the permit conditions to include the language as proposed by CSSI. The revised wording provides a more accurate and clear interpretation of the applicable regulations.

13. LM.(4) (p. 55)

CSSI's proposed change is not acceptable. The cited statute says that DEQ may have CSSI do the sampling, not that such sampling must be done by CSSI. In the future, DEQ or EPA may ask CSSI to conduct the sampling or they may wish to collect their own samples. However, for the purpose of this permit condition, the agencies wish to retain the flexibility allowed by 40 CFR §270.30(i)(4).

14. LN.(3)(f) (p. 56)

DEQ and EPA agree to the revise the permit condition by deleting the phrase "including the QA/QC summary". The revised wording provides a more accurate and clear interpretation of the applicable regulation.

15. I.O. (p. 57)

DEQ and EPA agree to revise the permit condition to include the language as proposed by CSSI. The revised wording provides a more accurate and clear interpretation of the applicable regulation.

16. I.P.(2)(b) (p. 57)

DEQ and EPA agree that specific language of 40 CFR §270.30(1)(2) was not included in this condition, ~~with respect to the words "submission" and "the Permittee has not received notice"~~. CSSI's proposal that unless the agencies have performed the inspection within 15 days, the right to inspect is waived, is without regulatory basis. If the agencies wish to inspect a new unit, it will likely be done during construction. The agencies have no desire to delay usage of new units at the facility and will perform any inspections in a reasonable and timely manner. The permit condition will be modified to reflect exact language contained in 40 CFR §270.30(1)(2). As such, CSSI's proposed language regarding the agencies' inspection rights will not be included in the permit.

17. I.Q. (p. 58)

DEQ and EPA agree to the revise the permit condition to include the language as proposed by CSSI. The revised wording provides a more accurate and clear interpretation of the applicable regulation.

18. I.R. (p. 59)

This permit condition is based upon a lawfully adopted state rule and will remain in the permit. It was in the state program and was accepted by the EPA when the state received final authorization in January 1986.

19. I.U.(1) and I.U.(2) (p. 61)

DEQ and EPA agree to revise the permit condition to delete the phrase "but not be limited to", as proposed by CSSI. The revised wording provides a more accurate and clear interpretation of the applicable regulation.

20. I.U.(1)(b) (p. 62)

CSSI's proposed change is not acceptable. The subject condition is consistent with the reporting procedure in 40 CFR §264.56, as modified by OAR 340-104-056(1). This condition will not be modified.

21. I.U.(2)(d) (p. 63)

DEQ and EPA agree to revise the permit condition to delete the terms "shipping", "hazard class" and "nature", as proposed by CSSI. The revised wording provides a more accurate and clear interpretation of the applicable regulation.

22. I.U.(3) (p. 64)

DEQ and EPA agree to the revise the permit condition to include the language as proposed by CSSI. The revised wording provides a more accurate and clear interpretation of the applicable regulation.

23. I.V. (p. 65)

CSSI's proposed change is not acceptable. The internal audit function at CSSI is the direct result of the settlement of a DEQ/EPA enforcement action. The agencies fully expect CSSI to maintain a high level of commitment to carrying out an accurate audit program, as per the provisions of the consent agreement. The agencies do not wish to differentiate which areas of noncompliance should be reported in accordance with 40 CFR §270.30(1)(10) and which areas should not be reported because they would "discourage candid internal monitoring of the facility's compliance status".

This condition, which is based strictly on 40 CFR §270.30(1)(10) will not be modified as requested by CSSI. However, DEQ and EPA agree to add a clarifying sentence at the end of this permit condition which will state that "noncompliance" will be defined as noncompliance with any conditions of this permit. This will address CSSI's concern that noncompliance could be construed to mean noncompliance with other regulations which are outside the scope of this permit.

The agencies are aware of Chem-Waste Management, Inc's. request to EPA Headquarters that 40 CFR §270.30(1)(10) be clarified and reduced in scope. DEQ and EPA are willing to use any changes that may be made to this regulation as the basis to consider a permit modification request that may be submitted by CSSI. However, at this time, the agencies have no alternative for this specific regulatory language in the permit.

24. I.Z. (p. 68)

DEQ agrees to delete this condition, as proposed by CSSI. The rationale for this decision is discussed in Comment/Response C, at the beginning of this document. DEQ believes that the information contained in Attachment 11 to the permit is sufficient to determine which wastes may and may not be received at the facility.

However, a new condition I.Z. will be included in the permit to address the Oregon fee schedule.

25. I.AA. (p. 69)

DEQ agrees to delete this condition, as proposed by CSSI. Legal counsel has advised that DEQ has no authority to require this condition.

26. I.BB. (p. 72)

DEQ agrees to delete this condition, as the language of the draft permit condition is clearly counter to the legislative intent in Senate Bill 138 (1985).

27. I.CC. (p. 73)

This new condition, proposed by CSSI, is without regulatory or statutory basis. 40 CFR §124.3(c) states that a permit application for an existing facility should be reviewed for completeness within 60 days. As a matter of practice, DEQ and EPA make every effort to complete their reviews within that time. In cases where complex issues, lengthy volumes of the application, or national policy issues are involved, it is not always possible to complete the review within 60 days. DEQ and EPA are not willing to be bound by a 90 day approval period, after which time we would forfeit our right to review the submittals. This permit condition will not be added to the permit.

## II. GENERAL FACILITY CONDITIONS

### 28. II.A.(1) (p. 75)

This is a general condition which is taken from the EPA headquarter's model permit. The language is taken directly from 40 CFR §264.31. Certainly, it provides more latitude in enforcement than some of the very specific conditions that pertain to facility design and operation. However, it is not an ambiguous requirement, as asserted by CSSI. The agencies realize that it is impossible to document every conceivable detailed operating practice that might occur during the life of a permit. The agencies wish to maintain this general condition in the event that an incident or release should occur which was outside the scope of the more detailed permit conditions. This condition is broader in scope than 40 CFR §264.51, which deals strictly with the Contingency Plan. CSSI's comment regarding the apparent conflict with permit condition II.G. is well taken and condition II.G. has been appropriately modified. For consistency, condition II.H. has been revised in the same manner. CSSI's assertion that the agencies do not have authority for this condition is without basis. This condition will remain in the permit.

### 29. II.B.(1) (p. 76)

DEQ and EPA agree to the revise the permit condition to include the language as proposed by CSSI. The revised wording provides a more accurate and clear interpretation of the applicable regulation.

### 30. II.C.(1)(a) (p. 77)

DEQ and EPA agree to delete this permit condition as it was specified in the draft permit. ~~The replacement page for the Waste Analysis Plan, provided by CSSI, will be inserted into Attachment 2 of the permit. The revised wording of the replacement page addresses the issue covered by condition II.C.(1)(a) of the draft permit and is equally accurate and enforceable to the language contained in the draft permit condition. Therefore, this permit condition is now unnecessary and would be redundant to the content of the Waste Analysis Plan.~~

However, as was brought to CSSI's attention during a meeting on December 1, 1987, the agencies have reconsidered the issue of compositing samples from up to 10 containers when the containers are from the same generator and process and are similar in appearance. The agencies will now require that such samples be analyzed on an individual basis and compositing will not be allowed. The rationale for this decision is that there is a potential for only one sample to be analyzed per 100 containers (every 10th container randomly selected and sampled and compositing up to 10 samples for analysis). The agencies believe that since only 10 percent of the containers are sampled, it is very reasonable to require that all samples be analyzed. Therefore, permit condition II.C.(1)(a) will be revised to address this new issue and will read as follows:

"Replace Section 5.1, page 30, paragraph 2, sentences 6 and 7, as follows:

All samples from containers shall be analyzed as discrete samples, without compositing. After acceptance, all containerized liquid wastes are subjected to a LWCT prior to further treatment."

31. II.C.(1)(b) (p. 79)

This condition was purposely written with the word "received", rather than "land disposed". The land disposal restrictions rule applies to storage in some cases, as well as land disposal. Solvent listed wastes can only be stored for certain purposes, as described in the November 7, 1986 final rule and in the HSWA statute. Unless storage is conducted in accordance with 40 CFR §268.50, such storage is prohibited. The draft permit condition is accurate, in that any wastes received at the facility must be managed in accordance with the land disposal restrictions rule. Therefore, this wording in the permit condition will not be changed.

CSSI also asked for 180 days in which to submit a permit modification request to the agencies. The draft permit allowed 30 days. While the agencies agree that 30 days may not allow adequate time to prepare a thorough document, 180 days is deemed excessive. The agencies allow 180 days for preparation of a complete Part B application. The agencies will change the permit to allow a more reasonable time, 90 days, for the submittal.

32. II.C.(1)(c) (p. 80)

DEQ and EPA agree to delete this permit condition as it was specified in the draft permit. The replacement page for the Waste Analysis Plan, provided by CSSI, will be inserted into Attachment 2 of the permit. The revised wording of the replacement page addresses the issue covered by condition ~~II.C.(1)(a)~~ of the draft permit and is equally accurate and enforceable to the language contained in the draft permit condition. Therefore, this permit condition is now unnecessary and would be redundant to the content of the Waste Analysis Plan.

The exception, noted above, to the adequacy of CSSI's proposed language pertains to the amount of stabilizing reagent it proposes to use as a safety factor. To a large extent, the agencies have agreed to forego some of the analytical criteria to demonstrate that stabilization has occurred, in favor of a safety factor that will help to ensure that a reaction has occurred. At this time, the agencies disagree with CSSI as to what that safety factor should be. The agencies have been quite clear that they favor a 20 percent safety factor, while CSSI has proposed a maximum of 10 percent. This percentage relates to the amount of excess reagent, by weight, that CSSI will add to liquid waste to ensure that a reaction will occur.

The agencies have specified two distinct reasons why they believe a 20 percent safety factor is appropriate. They are as follows:

1. A significant variation in the physical waste composition can occur between the waste sample submitted to CSSI as part of the preacceptance procedure and the actual incoming shipment that arrives at CSSI; and

2. The method of determining the minimum mix ratio of reagent to waste that is required to achieve a satisfactory load bearing capacity, (1 ton/square foot after 24 hours), on the preacceptance sample is a laboratory process, where "ideal" mixing can occur. When the bulk shipment arrives at the site, mixing is accomplished under much less ideal conditions. Mixing is accomplished here by means of a backhoe. Mixing in this imprecise manner, coupled with potential adverse weather conditions, requires a significant safety factor in the amount of reagent used.

For these two reasons combined, the agencies will require the use of a 20 percent safety factor, rather than the lower amount proposed by CSSI. Permit condition II.C.(1)(c) will be revised to read as follows:

"Revise Stabilization Evaluation Test, Page WAP-B-5, Item 3, last sentence, to read as follows:

An additional 20% of reagent by reagent weight provides the mix ratio which will be used to stabilize incoming waste shipments".

33. II.C.(2) (p. 85)

DEQ and EPA agree to revise the permit condition to include the language as proposed by CSSI. The revised wording is equally accurate and enforceable to the language contained in the draft permit condition.

34. II.E.(4)(b) and II.E.(4)(c) (p. 85)

DEQ and EPA do not believe that the requirement for the narrative report is overly burdensome or excessive, as asserted by CSSI. CSSI would be expected to use its judgement as to how long and how detailed such a narrative would be. The narrative would need to explain, in a straightforward manner, what changes are being made to the form and why the changes are necessary. The agencies would expect that, in most cases, such narratives would be very brief and might be in the form of a cover letter that would accompany the inspection form. The agencies will revise this permit condition to use the term "narrative report or written explanation", in order to provide clarification.

35. II.F.(1) (p. 86)

DEQ and EPA agree to revise the permit condition to include the language as proposed by CSSI. The revised wording is equally accurate and enforceable to the language contained in the draft permit condition.

36. II.J.(1) (p. 87)

DEQ and EPA agree to revise the permit condition to include the language as proposed by CSSI. The revised wording provides a more accurate and clear interpretation of the applicable regulation.

37. II.J.(3) (p. 87)

DEQ and EPA agree to revise the permit condition to include the language as proposed by CSSI. The revised wording provides a more accurate and clear interpretation of the applicable regulation.

38. II.J.(7) (p. 88)

DEQ and EPA will modify this condition to delete the requirement that CSSI close each unit listed on Table 1-11 of Attachment 8, no later than the estimated closure date(s) specified. CSSI will, however, still be required to adhere to the last column of Table 1-11, "Length of Time to Close (days)". Obviously, any dates specified in the permit for closure of various units will be applied on a case by case basis (e.g., closure of all non-minimum technology design ponds by November 8, 1988 or closure of certain container storage areas within six months after the effective date of this permit).

CSSI further proposed to modify the second part of this condition, which begins with "Attachment 8, Table 1-11...". The proposed language, regarding "voluntarily agreed...", adds no pertinent or necessary information to the condition. DEQ and EPA agree to include the revised Table 1-11 in Attachment 8 of the permit. This revised table corrects the estimated closure dates for units S8-A and S8-B.

39. II.J.(11) (p. 91)

DEQ and EPA agree to modify this condition to delete the phrase "that is necessary to confirm the absence of contamination". The revised wording is equally accurate and enforceable to the language contained in the draft permit condition.

40. II.J.(12)(b) (p. 92)

This permit condition is intended to provide some flexibility to both CSSI and the agencies during closure and to address the situation where an anomalous value may be found in the background set. This issue was raised during protocol development for closure of the initial ponds over two years ago. CSSI has not proposed a satisfactory method to address outliers, nor did the statistical method specified by EPA solve the problem.

The agencies' concern is that "distinctly higher concentrations of hazardous constituent(s) than contained in other background samples" could indicate that soil is actually contaminated, rather than unaffected by the operation at the site. If the high value represents contaminated soil, the value can not be used since it would skew the background data set and result in a less stringent clean up standard. The agencies believe that it would be very difficult for CSSI to clearly distinguish whether "distinctly higher concentrations..." of naturally occurring constituents in background samples are due to random high values that represent true background concentrations or whether they represent an area of contamination and are not representative of background values. However, the agencies will revise this condition to allow CSSI the opportunity to demonstrate that samples with "distinctly higher concentrations..." represent natural background values.

CSSI will make the initial determination of whether the background data set includes such high values. DEQ will reserve the right to disapprove the use of any values which it determines to be nonrepresentative of legitimate background values. To address this issue, a final sentence will be added to this condition to coincide with the Fact Sheet which accompanied the draft permit. The sentence will read as follows:

"All background values for each parameter shall be subject to review and acceptance or rejection by the Department before such values are used to determine the clean up standard at each unit."

The agencies are not willing to consider "expected" values of hazardous constituents. The background values must be set in accordance with Attachment 8, Appendix 2 of this permit and as modified by this permit condition. The range of background values must be specific to the units being closed, in accordance with the distance criteria that has already been developed and used for pond closures under interim status. CSSI's proposed use of the phrase "in the vicinity" is subjective and provides potential conflict with language specified in Attachment 8, Appendix 2. The permit requires a minimum of five background samples to be established. CSSI may take additional samples, as they have done in many cases, thereby widening the values of the background set.

CSSI's assertion that the clean up standard could be made overly strict due to compositing of background samples would be considered valid if the samples from the quadrants of the units were not being composited. The effect of compositing either background or regulated unit samples will be a narrower range of constituent concentrations. Since up to five samples in each quadrant of the regulated unit may be composited, the same procedure must be used for background samples in order to retain an unbiased procedure. The agencies have always intended that background samples would be composited. The agencies did not notice that CSSI had originally proposed to composite "up to" five samples for each background analysis (see Attachment 8, Appendix A, page A-2, second bullet). The agencies will include revised page A-2 into Attachment 8 of the permit, requiring that five background samples be composited for each background analysis.



41. II.J.(12)(c) (p. 93)

This issue came up several months ago in a meeting with CSSI, DEQ, and EPA. At that time, DEQ stated that the permit would require analysis of Appendix IX constituents in the soil as verification of clean closure. CSSI correctly pointed out that Appendix IX was designed for water analysis rather than soil analysis and that the agencies had no regulatory basis to require Appendix IX analysis for soils. The requirement for Appendix VIII analysis, as specified in this condition, is the appropriate set of parameters and is in accordance with the regulations. The agencies have consistently been on record with CSSI that the priority pollutant list would not be acceptable as a parameter list under the permit.

DEQ and EPA do not believe that dioxin and furan constituents should be deleted from the Appendix VIII list of parameters. Such constituents could have been placed in existing units prior to the time they were listed on Appendix VIII. Additionally, the procedures of the Waste Analysis Plan would not detect dioxin or furan waste. At this time, there is no basis for exclusion of these constituents.

42. II.J.(14) (p. 94)

DEQ and EPA agree to modify the condition to delete the requirement that the financial assurance mechanism(s) be included with the permit modification requests.

The second issue raised by CSSI pertains to the schedule for initiation of closure. DEQ and EPA realize that, in some cases, "immediate" closure of units might be impossible due to weather conditions. Therefore, the fifth sentence in this condition will be replaced with the following: "The schedule for closure of that unit, as specified in Attachment 8, ~~Table 1-11~~, (Length of Time to Close [days]), shall be initiated immediately upon approval of the 40 CFR Part 264 closure plan and the permit modification." This permit condition will be renumbered, for the purpose of clarifying the permit requirements and the issues raised by CSSI. The revised language, as described above, to address this issue, will be specified in condition II.J.(14)(a).

In regard to the third issue raised by CSSI, DEQ and EPA agree to clarify the language contained in the draft permit. This permit condition is based on a change in the federal rules, in the December 1, 1987, Federal Register. This rule, effective on January 1, 1988, requires that surface impoundments, land treatment areas, or waste piles which received waste after July 26, 1982, or were closed under interim status rules (40 CFR Part 265) after January 26, 1983, must be closed in accordance with standards equivalent to those of 40 CFR Part 264 Subparts F and G. The impoundments and the land treatment area that have been clean closed under interim status closure plans at the Arlington facility are subject to the December 1, 1987 rule.

Therefore, this permit condition will be revised to require CSSI to submit an "equivalency demonstration", as provided in the December 1, 1987 rule. This demonstration will be based on CSSI's groundwater monitoring data and documentation that the parameter lists in the approved interim status closure plans provide an equivalent level of assurance (compared to Appendix VIII analyses) that all hazardous waste and hazardous constituents were removed during closure. In other words, CSSI will have to demonstrate that the parameters in the approved interim status closure plans are acceptable "surrogates" for Appendix VIII parameters. As specified in this permit, Appendix VIII analyses is the appropriate method for documenting clean closure under 40 CFR Part 264.

The revised permit condition will require that the equivalency demonstration be submitted in accordance with a Schedule of Compliance. The submittal of the demonstration will be set as 120 calendar days after the effective date of this permit. The agencies reserve their right to require post-closure care, including corrective action, for any of the clean closed units, in the event the equivalency demonstration fails to document that clean closure, in accordance with 40 CFR Part 264, has been achieved. The "Note" that was contained in the draft permit condition will be deleted and this permit condition will be renumbered. The revised language, as described above, to address this issue, will be specified in condition II.J.(14)(b).

43. II.J.(15) (p. 96)

The closure plan does address the issue of soil sampling at the facility as a part of final facility closure (Attachment 8, page 1-34, last paragraph). However, this paragraph does not describe how such sampling will be accomplished. It simply states that certain areas will be "checked for soil contamination". There is a need, therefore, for CSSI to submit a detailed plan for approval just prior to final facility closure. At that time, now estimated as the year 2020, the configuration of the facility may look very different than it does now. DEQ and EPA do not believe there is a need to continually modify such a plan each time the configuration changes over the next 30 years. This permit condition will not be modified.

44. II.K.(4) (p. 97)

DEQ and EPA agree to revise the permit condition to include the language as proposed by CSSI. The revised wording provides a more accurate and clear interpretation of the applicable regulation.

45. II.L.(1) (p. 98)

CSSI's proposed deletion is not acceptable. For instance, there is no indication in CSSI's Post-closure Plan that CSSI will comply with 40 CFR §264.119, nor are there any unequivocal statements that CSSI will comply with all the appropriate requirements of the other three cited rules. In addition, these rules are very straightforward and should not present CSSI with any unusual compliance problems. This permit condition will not be modified.

46. II.L.(2) (p. 99)

DEQ and EPA agree to revise this condition to reflect the language proposed by CSSI. The revised wording provides a more accurate and clear interpretation of the applicable regulation.

47. II.L.(3) (p. 100)

DEQ and EPA agree to delete this condition, since the revised wording of condition II.L.(2) would make it redundant.

48. II.M.(4) (p.100)

DEQ and EPA agree to revise the permit condition to include the language proposed by CSSI. The revised wording is equally accurate and enforceable to the language contained in the draft permit condition.

49. II.M.(5) and II.M.(6) (p. 101)

This permit condition will not be modified as requested by CSSI since CSSI's proposed monitoring network is not specified in this permit. The line item post-closure costs are based on the costs proposed by CSSI. The reason for the increased post-closure cost specified in the draft permit was based solely on the number of required wells. The post-closure cost estimates and financial assurance mechanism(s) may be modified if any of the additional monitoring wells required by this permit are installed as single completion wells rather than double completion wells (see response number 125 of this document).

50. II.N.(1) (p. 102)

DEQ and EPA agree to revise the permit condition to include the language proposed by CSSI. The revised wording is equally accurate and enforceable to the language contained in the draft permit condition.

51. II.O.(1) (p. 103)

DEQ and EPA agree to revise the permit condition to include the language proposed by CSSI. The revised wording is equally accurate and enforceable to the language contained in the draft permit condition.

52. II.O.(2) (p. 104)

DEQ agrees to revise the permit condition to include the language proposed by CSSI. The revised wording is equally accurate and enforceable to the language contained in the draft permit condition.

53. II.P.(1) and II.P.(2)

(p. 104)

DEQ and EPA will modify the permit condition by deleting the phrase "demonstrate continuous compliance" and replacing it with "comply". The words "at least" will remain in the permit condition since this is a direct quotation from 40 CFR §264.147. This wording can not be construed to mean that CSSI may be required to have additional coverage. Instead, it allows CSSI to have additional coverage, if it desires. The agencies do not wish to restrict the amount of coverage CSSI may wish to obtain. If the amount was restricted, any excess amount of coverage would result in a violation of this permit condition.

54. II.Q. (p. 106)

DEQ and EPA agree to revise the permit condition to include the language as proposed by CSSI. The revised wording is equally accurate and enforceable to the language contained in the draft permit condition.

### III. CONTAINER STORAGE

55. III.A.(1)(a) (p. 107)

DEQ agrees to delete condition I.Z., as contained in the draft permit (see response number 24). Permit condition III.A.(1)(a) will be modified to reflect this change. DEQ and EPA agree to use the language proposed by CSSI for this condition, except that the first sentence will end as follows:

"..., included as Attachment 11 of this permit, except as provided by permit conditions III.F.(1), III.F.(2), and III.F.(3)".

The clarifying language, "except as provided by permit conditions III.F.(1), III.F.(2), and III.F.(3)", will also be added to permit condition III.A.(1)(b).

56. III.A.(3) (p. 107)

The rationale for inclusion of permit condition II.A.(1) is given in response number 28. DEQ and EPA believe that it is appropriate to reference condition II.A.(1) as a general performance standard for container storage management. Therefore, this permit condition will not be modified.

57. III.B. (p. 108)

DEQ and EPA agree to revise this permit condition by deleting the phrase "from the aisle" from the first sentence, as requested by CSSI. However, the agencies will add language which will require that CSSI immediately, upon request during an inspection, reposition any containers, as necessary, to make the label(s) of any container(s) visible from the aisle.

58. III.C. (p. 109)

Although the draft permit condition used the exact distances specified in CSSI's Part B application, DEQ and EPA agree to revise this permit condition. The use of approximate distances, as proposed by CSSI, is not acceptable, since it would result in ambiguous and subjective determinations of compliance. However, the agencies will delete the five foot aisle space requirement and require that all aisle space be maintained at a minimum of two and one-half feet in all container storage areas. The agencies believe that this is the minimal aisle space necessary for safe inspection of the containers. The agencies suggest that CSSI provide a larger aisle space, as a margin of safety, since any aisle space less than two and one-half feet will result in a violation of this permit condition.

59. III.D.(1) (p. 110)

DEQ and EPA agree to modify this condition to delete "S-1, S-4", as proposed by CSSI. This change is necessary, due to CSSI's recent proposal to keep storage units S-1 and S-4 open for the storage of nonliquid containerized waste.

60. III.D.(2) (p. 110)

DEQ and EPA do not concur with CSSI that the method of storing containerized liquid hazardous waste in storage areas S-1 or S-4, as described in the June 1987 Part B application met the containment criteria specified in 40 CFR §264.175(b). Based on the revised Part B application submitted by CSSI, this permit condition can now be modified to include the four outdoor storage areas as being in compliance with 40 CFR §264.175(c). This condition will not imply that storage of liquids in the other storage units complies with 40 CFR §264.175(b).

61. III.F. (p. 111)

As stated in response number 60, DEQ and EPA do not believe that storage of liquid hazardous waste in storage units S-1 and S-4 constitutes compliance with 40 CFR §264.175(b). Therefore, the heading "Schedule of Compliance" is appropriate and will not be changed.

62. III.F.(1) (p. 111)

DEQ and EPA agree to modify this permit condition to reflect the language proposed by CSSI. This change is necessary, due to CSSI's recent proposal to keep storage units S-1 and S-4 open for the storage of nonliquid containerized waste.

63. III.F.(2) (p. 112)

DEQ and EPA agree to modify this permit condition to reflect the language proposed by CSSI. This change is necessary, due to CSSI's recent proposal to keep storage units S-1 and S-4 open for the storage of nonliquid containerized waste.

64. III.F.(3) (p. 113)

DEQ and EPA agree to modify this permit condition to reflect the language proposed by CSSI. This change is necessary, due to CSSI's recent proposal to keep storage units S-1 and S-4 open for the storage of nonliquid containerized waste.

#### IV. TANK STORAGE AND TREATMENT

Note: Although comments were not made on permit conditions IV.A.(1) and IV.A.(2), these conditions will be modified in the final permit. The revised language will be less complex, since DEQ adopted the tank rule contained in the July 14, 1986, Federal Register on December 11, 1987. Therefore, the language of these permit conditions can be simplified to require compliance with this rule only.

65. IV.B.(2) (p. 115)

The Part B application on which the draft permit was based did not restrict these tanks as 90-day tanks. They were designated to store a wide range of hazardous wastes, including volatile and semi-volatile organic wastes. It was for this reason that the carbon filtration system was added to this permit condition under the omnibus provision. The treatment of organic vapors which may be toxic and/or carcinogenic is not an "arbitrary requirement", as asserted by CSSI. Such treatment is a common practice and is a simple way to minimize the potential of harm to human health, by way of source reduction.

The DEQ and EPA agree to modify this permit condition to reflect the language proposed by CSSI, (i.e., stating that these tanks will be considered as 90-day tanks and, therefore, are not regulated under this permit). CSSI should note that once these tanks are used in a manner that is not in accordance with 40 CFR §262.34, the tanks are immediately subject to this permit.

66. IV.B.(3) (p. 116)

DEQ and EPA agree to modify this condition by deleting the phrase "is incompatible with the tank materials or". The revised wording provides a more accurate and clear interpretation of the applicable regulation. Refer to response number 65, regarding compliance with 40 CFR §262.34.

67. IV.B.(4) (p. 117)

The rationale for inclusion of permit condition II.A.(1) is given in response number 28. DEQ and EPA believe that it is appropriate to reference condition II.A.(1) as a general performance standard for storage of hazardous waste in tanks. Therefore, this permit condition will not be modified by deleting the reference to condition II.A.(1), as requested by CSSI. Refer to response number 65, regarding compliance with 40 CFR §262.34.

68. IV.B.(5) (p. 118)

DEQ and EPA agree to modify this condition to reflect the language proposed by CSSI, (i.e., stating that these tanks will be considered as 90-day tanks and, therefore, are not regulated under this permit). Refer to response number 65, regarding compliance with 40 CFR §262.34.

69. IV.C.(1) (p. 119)

The Part B application on which the draft permit was based did not specify that the Laboratory Holding Tank was considered as a 90-day tank. DEQ and EPA agree to modify this permit condition to reflect the language proposed by CSSI, (i.e., stating that this tank will be considered as a 90-day tank and, therefore, is not regulated under this permit). CSSI should note that once this tank is used in a manner that is not in accordance with 40 CFR §262.34, the tank is immediately subject to this permit.

The agencies' language in the draft permit, regarding the non-sparking electrical switches, will be deleted from this condition, based on CSSI's clarifying comments that only aqueous, (i.e., nonignitable), waste will be placed in this tank.

70. IV.C.(2) (p. 120)

DEQ and EPA agree to modify this permit condition to reflect the language proposed by CSSI, (i.e., stating that this tank will be considered as a 90-day tank and, therefore, is not regulated under this permit). Refer to response number 69, regarding compliance with 40 CFR §262.34.

The agencies also agree to delete the requirement for compatibility testing of waste with tank materials, since such testing requirements are not specified in the Waste Analysis Plan or, specifically in the regulations.

71. IV.C.(3) (p. 121)

DEQ and EPA agree to modify this permit condition to reflect the language proposed by CSSI, (i.e., stating that this tank will be considered as a 90-day tank and, therefore, is not regulated under this permit). Refer to response number 69, regarding compliance with 40 CFR §262.34.

72. IV.C.(4) (p. 122)

DEQ and EPA agree to modify this permit condition to reflect the language proposed by CSSI, (i.e., stating that this tank will be considered as a 90-day tank and, therefore, is not regulated under this permit). Refer to response number 69, regarding compliance with 40 CFR §262.34.

73. IV.C.(5) (p. 122)

DEQ and EPA agree to modify this permit condition to reflect the language proposed by CSSI, (i.e., stating that this tank will be considered as a 90-day tank and, therefore, is not regulated under this permit). Refer to response number 69, regarding compliance with 40 CFR §262.34.

The agencies also agree to change the schedule of compliance, as requested by CSSI. The revised wording provides a more accurate and clear interpretation of the applicable regulation.



74. IV.D.(2) (p. 124)

DEQ and EPA agree to delete the phrase "incompatible with the tank materials" from this condition, since the procedures for compatibility testing of waste with tank materials is not included in the Waste Analysis Plan or, specifically required by the regulations. However, the condition will be modified to prohibit the placement of corrosive wastes, as defined in 40 CFR §261.22.

75. IV.D.(3) (p. 125)

Refer to the agencies' response to comment number 28, [condition II.A.(1)]. This permit condition will not be modified.

76. IV.D.(4) (p. 125)

DEQ and EPA believe that two feet of freeboard is justified, based on the proposed treatment method (mixing with a backhoe). The freeboard was not specified as it would have been for an evaporation impoundment, where wave or wind action was the source of overtopping. It was specified to give a reasonable margin of safety from overtopping and spillage in light of the large scale imprecise method of mixing the reagent with liquid waste.

The agencies will add clarifying language to this condition, as follows:

"Waste in the unit, other than residue or stain on the inside of the tank walls, shall not exceed the two foot freeboard requirement, except as may be necessary during the actual mixing process. Residue or stain on the inside of the tank walls above the two foot freeboard limit shall not, in itself, result in a freeboard violation."

**Note:** Similar language has been added to permit condition IV.E.(4), regarding the Reactive Metals Hydrolysis Unit Tanks.

The agencies realize that residue will likely accumulate as a result of mixing. This is why the freeboard was set at two feet, rather than a lesser value. CSSI should keep in mind that any spillage of waste during mixing, loading, or unloading will result in a permit violation, unless immediately cleaned up.

CSSI needs to be consistent in its rationale on this issue. The design in the permit application (and referenced in Attachment 14), includes three separate bins that can be used in sequence for stabilizing liquid wastes. The stabilized wastes can be landfilled as soon as the paint filter liquids test is passed, in accordance with CSSI's revised procedures (December 1987). On one hand, CSSI states that the larger freeboard requirement will result in an economic burden, due to lost capacity.

The agencies do not see how this creates an economic burden unless CSSI plans to use all three bins at capacity on a daily basis. On the other hand, CSSI states [comment on condition IV.D.(5)(b)] that their market research indicates very little demand for stabilization, implying that the units may not even be constructed. At this time, there is no basis to change the freeboard requirement from two feet. After the stabilization units are constructed and used at capacity for a period of time, CSSI may be able to justify a smaller freeboard requirement, based on actual experience. This would be done as a permit modification request.

77. IV.D.(5)(a) (p. 126)

DEQ and EPA agree to revise this condition to reflect the language proposed by CSSI. The revised wording is equally accurate and enforceable to the language contained in the draft permit condition. This condition will be further modified to require that when the Stabilization Unit tanks are constructed, that all wastes to be stabilized (including unmanifested free liquids) will be stabilized in these tanks, rather than in containers or in trucks.

78. IV.D.(5)(b) (p. 127)

DEQ and EPA agree to revise this condition to reflect the language proposed by CSSI, slightly modified. The revised wording is equally accurate and enforceable to the language contained in the draft permit condition.

79. IV.E.(2) (p. 128)

DEQ and EPA agree to revise this condition to reflect the language proposed by CSSI, since the procedure for compatibility testing of waste with tank materials is not included in the Waste Analysis Plan or, specifically required by the regulations. However, the condition will be modified to prohibit the placement of corrosive wastes, as defined in 40 CFR §261.22.

80. IV.E.(3) (p. 129)

Refer to the agencies' response to comment number 28, [condition II.A.(1)]. In the same manner, the requirement to comply with 40 CFR §264.17 is a very reasonable standard to include in the permit. It is a general performance standard that requires CSSI to take precautions in handling incompatible wastes so that adverse, uncontrolled reactions are avoided. This permit condition will not be modified.

81. IV.F.(2) (p. 130)

CSSI's proposed revised language includes information that was not included in the most recent Part B application. DEQ and EPA agree that rinsing the interior of roll off boxes, returnable containers and end dumps is a beneficial service and an environmentally sound practice. In addition, the use of the Truck Wash Tank System for containment of hazardous waste leaking from trucks that arrive at the site is an excellent idea. Therefore, DEQ and EPA will modify this condition to reflect the language proposed by CSSI.

The agencies understand that the practice of rinsing the interior of roll off boxes, returnable containers and end dumps, as well as containment from trucks which are leaking are not required practices under this permit, but may be done at CSSI's discretion. This permit condition will be clarified by adding a statement that these are discretionary practices by CSSI and are not required by the permit.

82. IV.F.(3) (p. 131)

The residue or waste water created from rinsing the interior of roll off boxes, returnable containers, and end dumps, and the waste accumulated by the containment of hazardous waste leaking from trucks arriving at the site is not considered as waste generated by CSSI onsite. Therefore, 40 CFR §262.34 is not applicable to the Truck Wash Tank System. Hence, the Truck Wash Tank System must be covered under this permit. Refer to response number 28, regarding permit condition II.A.(1). This permit condition will not be modified.

83. IV.F.(4) (p. 132)

As stated in response number 82, the provision of 40 CFR §262.34 does not apply to the Truck Wash Tank System. Therefore, this permit condition will not be modified.

84. IV.F.(6) (p. 132)

As stated in response number 82, the provision of 40 CFR §262.34 does not apply to the Truck Wash Tank System. Therefore, this portion of the permit condition will not be modified. DEQ and EPA agree to revise the schedule for secondary containment by using the reference to 40 CFR Part 264 Subpart J, as proposed by CSSI.

## V. SURFACE IMPOUNDMENT STORAGE AND TREATMENT

### 85. V.A.(3) (p. 135)

DEQ and EPA agree to revise this condition to reflect the language proposed by CSSI. The revised wording provides a more accurate and clear interpretation of the applicable regulation.

### 86. V.A.(4)(a) (p. 136)

CSSI has requested that construction of the test fill be in accordance with its Quality Assurance (QA) document. Various editions of this document have been reviewed, and they have generally been found to meet or exceed EPA guidance. Therefore, with one minor exception, the agencies will reference CSSI's QA document in this permit condition. The exception is that CSSI will still be required to perform in-place hydraulic conductivity testing in accordance with procedures contained in the EPA publication which was referenced in the draft permit. CSSI's present QA document, as contained in Attachment 20 of the draft permit, does not address in-place hydraulic conductivity testing.

While the agencies are aware of Chem-Waste Management, Inc's. comments to EPA Headquarters on this issue, they believe that in-place testing is preferable, overall, to laboratory testing and that position is being upheld by EPA Headquarters, at this time. If EPA Headquarters should change its position on this issue by determining that laboratory testing of hydraulic conductivity, by itself, is acceptable for the test fill requirement, the Permittee could request a modification of this permit condition.

In the interim, the agencies suggest that CSSI conduct several laboratory hydraulic conductivity analyses during the test fill construction, and correlate the results to the in-place test results. This would allow use of laboratory test data, for QA/QC purposes, during actual construction of the land disposal unit.

### 87. V.A.(7)(b) (p. 137)

DEQ and EPA will replace the phrase "if a potential for overtopping is evident" with the following phrase, "if overtopping has occurred". The revised wording is equally accurate and enforceable to the language contained in the draft permit condition. This criterion requires more objectivity on the part of the agencies, while still allowing the agencies the opportunity to change the freeboard requirement without the need for a permit modification.

### 88. V.A.(11)(a) (p. 138)

DEQ and EPA agree to revise this condition to reflect the language proposed by CSSI. The revised wording is technically accurate and corrects a mistake that was made in the draft permit condition.

89. V.A.(11)(b) (p. 139)

DEQ and EPA agree to revise this condition to reflect the language proposed by CSSI. The revised wording is technically accurate and corrects a mistake that was made in the draft permit condition.

90. V.A.(11)(c) (p. 139)

DEQ and EPA agree that the language in the draft permit could be misinterpreted and, therefore, this condition will be modified. In order to provide the most clear language, the agencies will utilize the provisions which are contained in EPA's proposed rule which pertains to Response Action Plans, (Federal Register, Vol. 52, No. 103, May 29, 1987). This rule, although proposed, is the only guidance available on the issue of Response Action Plans. The preamble to this rule states that increases of 25% to 50% or volumes exceeding 100 gpad may be used to designate a "significant change" in the leakage rate and, thereby, trigger the requirement for reporting within 45 days (see page 20242 of the proposed rule).

The definition of the ALR will be expanded to include either 20 gpad (averaged over a weekly basis) or 50 gpad (on any given day). This guidance is found in 40 CFR §264.303(b)(2)(i) and (ii) of the proposed rule (p. 20289). The expansion of the ALR definition will be included as new permit condition V.A.(11)(f).

The proposed rule would require that the 45-day reporting requirement be triggered by an increase of 25% to 50% over the leakage rate in excess of 100 gpad. This translates to a leakage rate of 125 gpad to 150 gpad as the trigger for the 45-day reporting requirement.

The agencies have selected a percentage increase of 100 percent in excess of the ALR, as defined above, as a "significant change" in the leakage rate. This translates to a trigger for the 45-day reporting requirement if the leakage rate exceeds 40 gpad (averaged over a weekly basis) or 100 gpad (on any given day). This deals with the issue of establishing a minimum value for leakage to prevent triggering the "significant change" reporting requirement if leakage rate values in a minimal range, (e.g., from 0.3 gpad to 0.6 gpad, a 100 percent increase) are found.

91. V.A.(11)(d) (p. 141)

DEQ and EPA agree to revise this condition to reflect the language proposed by CSSI. The revised wording provides a more accurate and clear interpretation of the applicable regulation. In addition, the definition of ALR is being expanded, as noted in response number 90.

92. V.B.(2) (p. 142)

DEQ and EPA agree to revise this condition to reflect the language proposed by CSSI. The revised wording provides a more accurate and clear interpretation of the applicable regulation.

93. V.B.(4)

(p. 144)

Refer to the agencies' response to comment number 28, [condition II.A.(1)]. In the same manner, the requirement to comply with 40 CFR §264.17 is a very reasonable standard to include in the permit. It is a general performance standard that requires CSSI to take precautions in handling incompatible wastes so that adverse, uncontrolled reactions are avoided. This permit condition will not be modified.

94. V.B.(5)(b) (p. 144)

DEQ and EPA will replace the phrase "if a potential for overtopping is evident" with the following phrase, "if overtopping has occurred". The revised wording is equally accurate and enforceable to the language contained in the draft permit condition. This criterion requires more objectivity on the part of the agencies, while still allowing the agencies the opportunity to change the freeboard requirement without the need for a permit modification.

95. V.B.(6)

(p. 145)

DEQ and EPA agree to revise this permit condition to address CSSI's concerns, but the language proposed by CSSI will not be used. CSSI will simply be required to adhere to the approved Waste Analysis Plan and Stabilization Procedures found in Attachments 2 and 14 of the permit. This will involve preacceptance sampling and analysis of stabilized waste and then ensuring that the proper reagent to waste ratio has been achieved after treatment.

## VI. LANDFILL DISPOSAL

### 96. VI.A.(2) (p. 146)

DEQ and EPA agree to revise this condition to reflect the language proposed by CSSI. The revised wording is equally accurate and enforceable to the language contained in the draft permit condition. In addition, refer to response number 24, which pertains to condition I.Z., as contained in the draft permit.

### 97. VI.A.(2)(c)(1) (p. 146)

DEQ and EPA do not object to CSSI's basic approach and proposed language in this comment. The revised wording is equally accurate and enforceable to the language contained in the draft permit condition. However, for clarification in this condition, the agencies will require that the "pocket penetrometer test", cited by CSSI in its proposed language, "must signify a load bearing capacity in excess of 1 ton per square foot".

### 98. VI.A.(2)(c)(2) (p. 147)

DEQ and EPA agree to revise this condition to reflect the language proposed by CSSI, with the following exception, since the revised wording is essentially as accurate and enforceable as the language contained in the draft permit condition. CSSI's proposed phrase "passed the pocket penetrometer test" will be replaced with "passed criteria equivalent to the Stabilization Evaluation Test, as specified in Attachment 2 of this permit."

### 99. VI.A.(4) (p. 149)

Refer to the agencies' response to comment number 28, [condition II.A.(1)]. This condition will not be modified.

### 100. VI.A.(5) (p. 149)

DEQ and EPA agree that a portion of this condition needs to be revised.

- Inspection of the leachate collection system will be conducted weekly during the active life of the unit and during the post-closure period for landfill L-7 while the facility is still in operation. The agencies do not consider this as a burdensome requirement. CSSI should note that the post-closure care period for this unit will not begin until the unit is certified as closed.

During the term of this permit, CSSI may be able to demonstrate that a less frequent schedule for inspecting the leachate collection system is justified. This would be of importance to CSSI after the facility is fully closed. Since CSSI is not planning facility closure in the near future, it is not critical that such a demonstration be made at this time or that this permit include a provision for less frequent inspection after facility closure. A change in inspection frequency, if justified with data on the actual amount of leachate collected, can be implemented at a later date by either a permit modification or in conjunction with reissuance of the permit after expiration of the initial term.

- DEQ and EPA agree to revise this condition to reflect the language proposed by CSSI, in regard to "all pumpable quantities of". The revised wording is equally accurate and enforceable to the language contained in the draft permit condition. The agencies also agree to allow 24 hours for removal of liquid.

**Note:** The agencies inadvertently neglected to include the inspection of the sump in landfill unit L-9 in this permit condition. This will be corrected in the final permit.

101. VI.A.(6) (p. 150)

CSSI's proposed change to this condition is not acceptable. On January 3, 1980, the site owner/operator notified the DEQ of its intent to form a wholly owned subsidiary to be known as Chem-Security Systems, Inc. to manage the facility. A hazardous waste license was issued by DEQ to CSSI, as the owner/operator of the facility on August 26, 1980. Condition D1 of that license required CSSI to maintain records of the location coordinates of wastes in every trench.

Permission to use L-7 was granted on November 1, 1983; L-9 on August 25, 1980; and, L-10 on November 24, 1981. These dates are clearly after CSSI identified itself as the site owner/operator. Permission to use L-8 was granted on December 5, 1979; however, this earlier date poses no problem since only aluminum potliner waste was placed in L-8 prior to August 26, 1980.

On a more basic level, the agencies firmly reject the notion that CSSI can evade responsibility for waste management practices that were undertaken by the previous owner/operator. The formation of a subsidiary company or the purchase of a company does not absolve the new owner/operator from full responsibility for the result of any previous hazardous waste management practices that occurred at the facility.

102. VI.B.(2) (p. 151)

DEQ and EPA agree to revise this condition to reflect the language proposed by CSSI. In addition, refer to response number 24, which pertains to condition I.Z., as contained in the draft permit.



103. VI.B.(2)(c)(1) (p. 152)

DEQ and EPA agree to revise this permit condition in the same manner as condition VI.A.(2)(c)(1) [response number 97]. In addition, refer to the agencies response number 32, as it pertains to the permit condition II.C.(1)(c).

104. VI.B.(2)(c)(2) (p. 153)

DEQ and EPA agree to revise this permit condition in the same manner as condition VI.A.(2)(c)(2) [response number 98]. In addition, refer to the agencies response number 32, as it pertains to the permit condition II.C.(1)(c).

105. VI.B.(3)(c) (p. 154)

CSSI has requested that construction of the test fill be in accordance with its Quality Assurance (QA) document. Various editions of this document have been reviewed, and they have generally been found to meet or exceed EPA guidance. Therefore, with one minor exception, the agencies will reference CSSI's QA document in this permit condition. The exception is that CSSI will still be required to perform in-place hydraulic conductivity testing in accordance with procedures contained in the EPA publication which was referenced in the draft permit. CSSI's present QA document, as contained in Attachment 20 of the draft permit, does not address in-place hydraulic conductivity testing.

While the agencies are aware of Chem-Waste Management, Inc's. comments to EPA Headquarters on this issue, they believe that in-place testing is preferable, overall, to laboratory testing and that position is being upheld by EPA Headquarters, at this time. If EPA Headquarters should change its position on this issue by determining that laboratory testing of hydraulic conductivity, by itself, is acceptable for the test fill requirement, the Permittee could request a modification of this permit condition.

In the interim, the agencies suggest that CSSI conduct several laboratory hydraulic conductivity analyses during the test fill construction, and correlate the results to the in-place test results. This would allow use of laboratory test data, for QA/QC purposes, during actual construction of the land disposal unit.

106. VI.B.(4) (p. 155)

Refer to the agencies' response to comment number 28, [condition II.A.(1)]. This condition will not be modified.

107. VI.B.(6) (p. 156)

DEQ and EPA agree to revise this condition to reflect the language proposed by CSSI. The revised wording provides a more accurate and clear interpretation of the applicable regulation. In addition, a provision will be included to allow a longer period than 24 hours for removal of liquid from the sumps during the post-closure period after final facility closure. This time will be extended to 72 hours. The rationale is that 24 hours is an adequate time period while the facility is operational, but additional time to coordinate the pumping activity and off-site shipment of the liquid may be necessary after the facility is closed.

108. VI.B.(7)(a) (p. 157)

This permit condition is based strictly on the language of an EPA proposed rule, 40 CFR §264.303 (Federal Register Vol. 52, No. 103, May 29, 1987, p. 20289). This rule, although proposed, is the only guidance available on the issue of Response Action Plans. Although CSSI provides a rationale for its proposed language for this condition, there is no basis to support its position. The agencies do not believe that it will be burdensome to inspect the secondary leachate collection system sumps of L-12 and L-13 on a weekly basis during the post-closure period prior to facility closure.

The agencies do, however, see a potential problem with this inspection frequency after facility closure. During the term of this permit, CSSI may be able to demonstrate that a less frequent schedule for inspecting the secondary leachate collection system sumps is justified. Since CSSI is not planning facility closure in the near future, it is not critical that such a demonstration be made at this time or that this permit include a provision for less frequent inspection after facility closure. A change in inspection frequency, if justified by data on the actual amount of liquid collected, can be implemented at a later date by either a permit modification or in conjunction with reissuance of the permit after expiration of the initial term.

109. VI.B.(7)(c) (p. 158)

DEQ and EPA agree that the language in the draft permit could be misinterpreted and, therefore, this condition will be modified. In order to provide the most clear language, the agencies will utilize the provisions which are contained in EPA's proposed rule which pertains to Response Action Plans, (Federal Register, Vol. 52, No. 103, May 29, 1987). This rule, although proposed, is the only guidance available on the issue of Response Action Plans. The preamble to this rule states that increases of 25% to 50% or volumes exceeding 100 gpad may be used to designate a "significant change" in the leakage rate and, thereby, trigger the requirement for reporting within 45 days (see page 20242 of the proposed rule).

The definition of the ALR will be expanded to include either 20 gpad (averaged over a weekly basis) or 50 gpad (on any given day). This guidance is found in 40 CFR §264.303(b)(2)(i) and (ii) of the proposed rule (p. 20289). The expansion of the ALR definition will be included as new permit condition VI.B.(7)(f).

The proposed rule would require that the 45-day reporting requirement be triggered by an increase of 25% to 50% over the leakage rate in excess of 100 gpad. This translates to a leakage rate of 125 gpad to 150 gpad as the trigger for the 45-day reporting requirement.

The agencies have selected a percentage increase of 100 percent in excess of the ALR, as defined above, as a "significant change" in the leakage rate. This translates to a trigger for the 45-day reporting requirement if the leakage rate exceeds 40 gpad (averaged over a weekly basis) or 100 gpad (on any given day). This deals with the issue of establishing a minimum value for leakage to prevent triggering the "significant change" reporting requirement if leakage rate values in a minimal range, (e.g., from 0.3 gpad to 0.6 gpad, a 100 percent increase) are found.

110. VI.B.(7)(d) (p. 160)

DEQ and EPA agree to revise this condition to reflect the language proposed by CSSI. The revised wording provides a more accurate and clear interpretation of the applicable regulation. In addition, the definition of ALR is being expanded, as noted in response number 109.

111. VI.B.(7)(f) (p. 161)

DEQ and EPA have evaluated the revised Action Leakage Rate (ALR) limits for cells 1 and 2 of landfill L-13. This is an overlapping issue with the proposed Response Action Plan (RAP) for cells 3, 4, 5, and 6 of landfill L-13; and therefore, the agencies have combined their response to the adequacy of the ALR and the rapid and large leakage rates for all the cells in landfill L-13, as proposed in Exhibits 9 and 10 of CSSI's comments. The agencies do not agree with CSSI's proposed changes for the following reasons:

- Exhibit 10 includes a method for calculation of construction water that is technically correct. However, CSSI has made two assumptions that have biased the answer toward a high ALR. First, it assumes that the soil liner would be 100% saturated, while the consolidation data indicates that it is only 80% to 90% saturated, depending on the value of specific gravity used.

Second, the ALR calculations were made using the highest value of consolidation water discharge. In Table 1 of Exhibit 10, consolidation water ranged from 0.02 to 0.07 gallons per cubic foot per 1.5 feet of clay, with an average of 0.05. CSSI elected to use the highest value, 0.07 gallons. Both of the above assumptions result in larger values of construction water than can be reasonably expected to occur on the average over several years. The purpose of the RAP and the ALR is to provide a warning system if there are problems. The assumptions used by CSSI would tend to cover up leakage, rather than aid in discovering it.

Using an average value for water released during construction (which is about 25% less than the maximum value -- 0.05 vs. 0.07 gallons per cubic foot per 1.5 feet of clay) and a lower degree of saturation, will reduce the overall contribution to the ALR due to construction water for Cell 4 from approximately 36 gpad to approximately 23 gpad. The value of 23 gpad is a calculated value which may, in reality, be much lower.

The effect of local climate at this site must also be considered. Exhibit 9, page 15 indicates that there are only 50 days per year when the rainfall exceeds 0.01 inch. If one bases calculations on a rainfall of 0.01 inch over 1 acre and assumes 30% infiltration (70% runoff), there will be approximately 82 gallons of liquid available to leak through the liner. Since it is unlikely that all of this liquid would find its way to the secondary sump system, the agencies believe that an ALR value of 20 gpad (as per CSSI's original plan) is a liberal value. The higher value, as proposed by CSSI in its comments to the draft permit, is not justified, based on local climate.

- CSSI's proposed rapid and large leakage rates, as proposed in Exhibit 9, are also of concern. Attachment 22 of the draft permit provides for a value of 1,500 gallons per day to define a rapid and large leak. Exhibit 9 proposes a value of over 7,000 gallons per day to define a rapid and large leak. Based on a very simple assumption of 1 inch of rainfall in a 24-hour period and 30% infiltration, the maximum value of liquid available for generating leachate is approximately 8,150 gallons. Considering the site climate, the presence of a primary leachate collection system, and the unlikely occurrence of several large tears in the 60-mil geomembrane, the values proposed by CSSI, are considered to be excessive for this site. The agencies believe that a value of 1,500 gallons per day is not too conservative; and, if achieved, would definitely signify a rapid and large leak.
- CSSI has proposed a monitoring frequency that matches the frequencies in Attachment 22 of the draft permit. However, draft permit conditions require a more frequent monitoring program. The more frequent monitoring program will be specified for all cells in landfill L-13.
- The ALR and the rapid and large leak values proposed by CSSI are reasonable, as calculated values, until the effect of the local climate is considered. However, due the low amount of rainfall, CSSI's proposed values are so high that it would be very unlikely that the quantity of leakage would be large enough to cause the RAP to be implemented, even if major failures of the primary liner were to occur.

Since CSSI has submitted a new Response Action Plan (RAP) for cells 3, 4, 5, and 6 of landfill L-13, DEQ and EPA agree to revise this permit condition to reflect the language proposed by CSSI. Therefore, a permit modification to include a RAP for these cells will not be required before placing waste in these cells. However, since the RAP for landfill L-12 has not been provided as part of the application, the RAP will have to be provided by means of a permit modification before waste can be placed in landfill L-12.

DEQ and EPA have evaluated the RAP for cells 3 through 6 of landfill L-13 (Exhibits 9 and 10 of CSSI's comments). With the exception of the ALR and the rapid and large leakage rate, the RAP proposed for cells 3 through 6 is similar to the RAP for cells 1 and 2 which is included as Attachment 22 of the draft permit. The agencies' response to this RAP is the same as for cells 1 and 2, regarding the ALR and the rapid and large leakage rate. Refer to response #111, which explains the agencies' rationale for not accepting the higher values proposed by CSSI.

The RAP proposed by CSSI for landfill L-13, cells 3 through 6, will be included in the permit, (Attachment 22), with the exceptions noted above. These exceptions will be specified in separate permit conditions.

## VII. SURFACE WATER MANAGEMENT PLAN

### 113. VII.B.

(p. 163)

If CSSI's existing surface water management system was determined to be out of compliance with applicable rules, the agencies would address the issue through a compliance order. The use of the term "Schedule of Compliance" is intended to allow CSSI to make necessary changes to the system to demonstrate continued compliance with permit condition VII.A. The agencies see no advantage to the term "Schedule of Implementation" and, for consistency with other terminology used in the permit, will not modify this condition.

## VIII. PAST PRACTICE UNITS

**NOTE:** The term "solid waste management unit" (or "SWMU"), as contained in the draft permit was defined as landfill units L-1, L-3, L-5, and L-6 (see condition VIII.A. of the draft permit). While these units are SWMU's, by regulatory definition, the term "SWMU" technically applies to any solid waste management unit, including regulated units. The scope of Section VIII of the permit was intended to apply to only units L-1, L-3, L-5, and L-6 and was not intended to cover regulated units. Therefore, a more descriptive term, "past practice unit", now replaces the term "solid waste management unit", as it applies to units L-1, L-3, L-5, and L-6 in this permit.

### 114. VIII.C.(2) (p. 164)

DEQ and EPA agree to revise this condition to address the following issues:

- Inspection of the leachate collection system will be conducted weekly during the active life of the unit and during the post-closure period for landfill L-5 while the facility is still in operation. The agencies do not consider this as a burdensome requirement. CSSI should note that the post-closure care period for this unit will not begin until the unit is certified as closed.

During the term of this permit, CSSI may be able to demonstrate that a less frequent schedule for inspecting the leachate collection system is justified. This would be of importance to CSSI after the facility is fully closed. Since CSSI is not planning facility closure in the near future, it is not critical that such a demonstration be made at this time or that this permit include a provision for less frequent inspection after facility closure. A change in inspection frequency, if justified with data on the actual amount of leachate collected, can be implemented at a later date by either a permit modification or in conjunction with reissuance of the permit after expiration of the initial term.

- DEQ and EPA agree to revise this condition to reflect the language proposed by CSSI, in regard to "all pumpable quantities of". The revised wording is equally accurate and enforceable to the language contained in the draft permit condition. The agencies also agree to allow 24 hours for removal of liquid.

### 115. VIII.C.(3)(a) (p. 165)

DEQ and EPA have provided a thorough response to this issue in response number 118, as it pertains to permit conditions IX.A.(1) and IX.A.(2). For the purposes of a groundwater monitoring network, the agencies are not differentiating between past practice units and regulated units. Therefore, the agencies' responses to all comments on Section IX of the permit also apply to landfill units L-1, L-3, L-5, and L-6 (past practice units).

CSSI also expressed a concern that drilling through the cap of the past practice units L-1, L-3, L-5, and L-6 could provide a migration route for contaminants to reach the aquifer. The agencies are not requiring CSSI to drill wells through the units, as is implied by CSSI's comment. While it is true that the specified new wells will penetrate the cover, this is because CSSI elected to cover all four trenches with a continuous cover. DEQ and EPA believe that the specified well locations provide a very adequate distance from the edge of each unit. The actual distance for drilling between trenches is greater than the distance between some of the regulated units in other areas of the site. In addition, CSSI has demonstrated that it can drill wells in this area without contaminating the aquifer (wells 2R-1, 2R-2, 3L-1, and 3L-2). The agencies would encourage CSSI to exercise extreme caution in drilling these wells, in order to prevent potential contamination problems. However, the agencies believe that the benefit of the data to be obtained from these wells outweighs the potential well construction problems that have been discussed.

116. VIII.C.(3)(b) (p. 166)

DEQ and EPA have provided a thorough response to this issue in response number 118, as it pertains to permit conditions IX.A.(1) and IX.A.(2). For the purposes of a groundwater monitoring network, the agencies are not differentiating between past practice units and regulated units. Therefore, the agencies' responses to all comments on Section IX of the permit also apply to landfill units L-1, L-3, L-5, and L-6 (past practice units). A correction has been made to this permit condition. Well 5E was incorrectly designated as well 3E, in the draft permit.

**Note:** Condition VIII.C.(4), as contained in the draft permit, has been deleted. The DEQ and EPA have reviewed this condition and believe that it contains extraneous language, unnecessary for the purposes of enforcing the permit.

117. VIII.D. (p. 166)

DEQ and EPA agree to revise this permit condition to provide clarity and objectivity to the process of moving from detection monitoring to corrective action. The criteria as specified in permit condition IX.F.(7) will be used in this condition (see response number 143).



## IX. GROUNDWATER MONITORING PROGRAM

### 118. IX.A.(1) and IX.A.(2) (p. 169)

DEQ and EPA disagree with CSSI that the groundwater monitoring network specified in these permit conditions is arbitrary and unnecessary to protect human health and the environment. CSSI's lengthy comments are divided into two general categories: waste management area size and modeling parameters. This response is formatted in the same way.

#### Waste Management Area Size

DEQ and EPA are aware of the regulatory language which states that perimeter monitoring of a "waste management area" (WMA) may be used instead of unit specific monitoring, "...provided that provisions for sampling the ground water in the uppermost aquifer will enable detection and measurement at the compliance point of hazardous constituents from the regulated units that have entered the ground water in the uppermost aquifer", [see 40 CFR §264.97(b)]. In fact, the agencies have allowed a WMA to be established for landfill cells L-8 and L-9. The issue is not whether WMAs are allowed; it is how large they can be in certain areas of the site, and still ensure that the groundwater sampling program will enable detection of any hazardous constituents that have entered the groundwater.

The establishment of WMAs must be done accounting for local geologic and hydrogeologic conditions. This is not an administrative process of circumscribing lines around various units, simply because they are located in the same general area. The final determination of a WMA, and the location of the ensuing point of compliance monitoring wells must consider both the time of travel (TOT) and whether contaminants might escape through the bottom of the aquifer before detection at the point of compliance (POC).

Table 1 shows the calculated TOT and the horizontal flow path length at several of the WMAs that are specified in the permit. In addition, it shows the values for two additional WMAs that were proposed by CSSI (Ponds A and B and landfill cells L-1 through L-7). Table 1 also shows the length across each unit, measured from the upgradient edge of the unit to the POC. In order to detect contaminants at the POC, the length of the unit must be equal to or smaller than the flow path length. Otherwise, a contaminant may exit the Selah aquifer before being detected at the POC.

TABLE 1

WMA	MAXIMUM LENGTH ACROSS UNIT (feet)	MAXIMUM FLOW PATH LENGTH (feet)	TOT (years)
<u>Acceptable WMAs</u>			
L-1	130	400	7
L-3	200	400	9
L-5	220	400	15
L-6	370	400	27
L-7	350	400	26
L-8 & L-9	700	2200	108
L-10	670	300 to 2200*	111
Pond A	280	400	22
Pond B	280	500	113
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<u>Nonacceptable WMAs</u>			
L-1 thru L-7	1060	400	77
L-8 thru L-10	1000	300 to 2200*	165
Ponds A & B	650	400 to 500	252

[\* Small portions of L-10 (i.e., around well 2V) have shorter flow path lengths of around 300 feet. The majority of L-10 has flow path lengths in the range of 2200 feet.]

The TOT ranges from 7 years for L-1 to 252 years for Ponds A & B. While the TOTs are based on many assumptions, including a hydraulic conductivity of  $10^{-4}$  cm/sec, the agencies believe they represent a reasonable estimate of actual TOT. Obviously, if the units or WMAs were made larger or smaller, the TOT would change accordingly.

The second consideration at this site in determining the boundary of the waste management area is the horizontal flow path that contamination might follow after reaching the aquifer. Contamination would only be detected if horizontal flow would transport contamination from a leak at the most upgradient point in the waste management area to the POC monitoring system without exiting the aquifer, into the underlying Priest Rapids basalt member.

The amount of horizontal flow for each foot of vertical movement has been estimated by CSSI to be 10 feet of horizontal flow for each foot of vertical flow (page 13, Conceptual Hydrogeologic Model, Arlington Facility, Dames and Moore, April 29, 1987). This would suggest that at units L-1 through L-7, where the aquifer is about 40 feet thick, the total horizontal flow in the Selah aquifer, before exiting through the bottom of the aquifer into the Priest Rapids basalt, would be about 400 feet. These data would indicate that, for a combined WMA of L-1 through L-7, less than half of the total WMA would be monitored with POC wells along the downgradient edge of the WMA. By defining the WMA around each of the individual landfill cells, the flow path lengths are reduced to distances that are consistent with the 400 foot flow path length (see Table 1).

CSSI proposed a combined WMA consisting of landfill units L-8, L-9, and L-10. The flow path lengths across this WMA are highly variable; from less than 300 feet near well 2V to greater than 1000 feet in other locations. The shorter flow path lengths could allow contamination from the unit(s) to exit the Selah aquifer into the Priest Rapids basalt member before reaching the POC monitoring wells. Additionally, consideration was given to the 90° shift in groundwater flow direction between Level 1 and Level 2 of the Selah aquifer beneath the proposed WMA. These two groundwater flow characteristics of the Selah aquifer beneath the proposed WMA necessitated that the area be divided into two smaller WMAs, (L-8 and L-9; and L-10), as specified in the draft permit.

At landfill unit L-12, the vertical gradients are much smaller, or are nonexistent, so that flow paths become equal to or greater than the length of unit L-12. Even though the TOT is very long, contamination entering the aquifer is expected to be detected downgradient at the POC wells.

Unit L-13 has a relatively long unit length, compared to most other units. Combined with the vertical gradients present in this area, flow path lengths should have been expected to be about 600 feet. CSSI provided additional documentation of the presence of clay and silt beds under L-13 to demonstrate that there were numerous low hydraulic conductivity layers that were continuous across the unit. Based on this information, it was reasonable to increase the ratio of horizontal hydraulic conductivity to vertical hydraulic conductivity to 500:1 from the 175:1 ratio used over the rest of the site. The resulting flow path lengths thereby increased to a distance exceeding the length of L-13, indicating that any contamination migrating from the unit would be detected in the POC wells.

At the WMA proposed as Ponds A and B by CSSI and as specified in the draft permit, the aquifer varies from 13 feet to 23 feet thick. The flow path lengths in this area are estimated from CSSI's flownet, (Flownet V-V, Figure 2-9, Volume F, Geologic and Hydrogeologic Site Characterization Report, April 1987), to be 400 to 500 feet. This flow path length is shorter than the distance from the upgradient point of Pond A to the proposed POC, (approximately 650 feet). This fact was discovered by the agencies as part of the preparation to this response. Therefore, it is necessary to separate Pond A and Pond B into two separate WMAs to ensure that proper monitoring of these units can be accomplished. One additional monitoring well, designated as well 6F-1,2, has been added to the required monitoring network for Pond A (refer to Plate 1 and Table 2 of the revised permit).

It is for the reasons specified above that the larger waste management areas proposed by CSSI were not acceptable and have been reduced in size to ensure that contamination can be detected at the POC wells in all cases.

## Modeling Parameters

The agencies' disagreement with the CSSI modeling does not come from the conceptual approach or the model selected, but from the parameters and assumptions used in the model. CSSI maintains that its model was adequate to locate monitoring wells downgradient of the waste management areas with a claimed 95% probability of detecting a plume at the point of compliance. A meeting was held in December 1986, with Golder Associates and CSSI, to discuss the the agencies' comments and the shortcomings of CSSI's first modeling. Lacking resolution of the issue of parameter selection to include in the model, the agencies utilized a different model to evaluate the reasonableness of the well locations proposed by CSSI. The agencies' model and rationale were explained to CSSI during a June 1987 meeting.

The agencies are in disagreement with CSSI on the appropriate values of two important parameters used in their respective models. The parameters are: (1) dispersivity, and (2) the probabilities of leakage assigned to various parts of liner systems and to unlined landfills. The changes in the dispersivity and the probabilities of leakage assigned to the unlined units, together, have a great impact on the location and number of monitoring wells. The issues regarding the unlined units are discussed in response numbers 115 and 116 of this document. The following discussion is limited to the agencies rationale for changing the dispersivity used in the model.

Dispersivity, for monitoring well location purposes, can be determined by monitoring environmental tracers or plumes. Since no plume exists and tracer studies would take years to complete at this site, the dispersivity must be estimated from the literature. Both CSSI and the agencies used the same literature citations which give ranges for various geologic formations.

Dispersivity is a scale dependent parameter.—The larger the scale of the problem under consideration, the larger—the dispersivity necessary to describe the migration of a plume. The major difference between CSSI's modeling and the agencies' modeling is the scale upon which the modeling was done. Even if the scales at which both CSSI and the agencies defined the problems had been the same, there is a range of dispersivity values that can be chosen. Whether the higher or lower dispersivity should be used should depends upon the purpose of the investigation. If the purpose of the investigation is to predict the total area that may be impacted, the modeler should use the larger dispersivity to see the maximum possible spread of the plume. If the modeler is interested in siting monitoring wells, then he should use the smaller dispersivity of the range of possible values, in order to minimize the potential for missing the plume due to excessive distances between monitoring wells.

CSSI defined the flow path length of 229 to 951 feet (page 26, April 1987, Groundwater Monitoring Plan gave a range of flow path lengths of 70 to 290 meters for L-13). CSSI did not provide a satisfactory rationale for selection of such a long flow path length. In contrast, the agencies selected the flow path as 100 feet (less than half the minimum flow path length used by CSSI). A flow path length of 100 feet was chosen because it provides for some offset distance of the wells away from the edge of the waste management area. By placing the monitoring wells some distance downgradient of the edge of the unit, construction activities for the cap, liner, etc. are avoided.

In addition, this distance provides some degree of assurance that short (less than 100 feet) layers of low permeability material will not cause diversion of contaminants past the POC in the unsaturated zone. This offset also allows a wider spacing of the wells than if the POC was set at the edge of the waste management area, yet avoids excessive distance between the waste management area and any upgradient point at which contamination might enter the aquifer. This is important to minimize travel time and dilution prior to detection.

Using the references given in earlier reviews of CSSI's modeling (Mercer, et. al., 1982 and Huyakorn and Faust, 1983), CSSI's flow path length resulted in a longitudinal dispersivity that ranged from 16 feet to 131 feet. The 100 foot flow path length used in the agencies' modeling resulted in a longitudinal dispersivity range of 6.5 feet to 10 feet.

Further conservativeness could have been introduced if the ratio of longitudinal dispersivity ( $\alpha_L$ ) to transverse dispersivity ( $\alpha_T$ ) had been lowered to 10:1, as recommended by Huyakorn and Faust (page 241, Predictive Methods for Assessment of Contaminant Migration, GeoTrans, 1983). Both CSSI and the agencies ran their models using a ratio of 5:1 between  $\alpha_L$  and  $\alpha_T$ . Figure 1 of the Appendix to this response to comments indicates that the range of  $\alpha_L$  values could range from 0.5 meters to over 100 meters at a distance of 100 feet. The center of mass of the values at 100 feet is approximately 3 meters (or 10 feet). The value used as  $\alpha_T$  in the agencies' model is 2 feet, approximately one fifth of this value. CSSI's value for  $\alpha_T$  was 20 feet. It has been shown in the evaluation of CSSI's parameters that a change in  $\alpha_T$  from 2 to 20 feet causes the width of the plume at 100 feet to vary from 80 feet to over 300 feet.

Another consideration reflecting the basic difference between CSSI's approach to the problem and the agencies' approach is the assumption that the Selah aquifer is homogeneous. CSSI's model considered any plume in the Selah as being completely mixed vertically within the total thickness of the aquifer. The consideration of total vertical mixing of the plume dilutes the plume and allows greater spreading before being detected by the monitoring wells. The CSSI site characterization showed that the Selah aquifer is highly stratified and anisotropic vertically. These properties will limit the vertical mixing of the plume and will tend to confine it to a narrow layer in the aquifer, thus limiting the amount of vertical dispersion. The consideration of less vertical mixing requires the use a smaller dispersivity.

A range of groundwater velocities were modeled using an  $\alpha_T$  of 2 feet. The results of these multiple runs are shown in Figure 2. Figure 2 shows that the amount of spreading at 100 feet increases as the groundwater velocity increases. The Appendix to this response to comments includes several examples of the output from the program used by the agencies. The program itself is RANDOM.WAK (Pricket, Naymik, and Lonquist, 1981, A "RANDOM-WALK" SOLUTE TRANSPORT MODEL FOR SELECTED GROUNDWATER QUALITY EVALUATIONS, Illinois State Water Survey, bul. 65), provided by the International Groundwater Modeling Center for microcomputers.

The results from the agencies modeling indicated that, for the groundwater velocities expected at most of the CSSI site, 80 to 100 feet of transverse spreading could be expected at a distance of 100 feet. If the larger dispersivity chosen by CSSI is used, the width of the plume, at 100 feet, is 240 to 320 feet. If the CSSI value for dispersivity is used at the 229 to 951 foot scale that CSSI proposed, the amount of spreading at the point of compliance is further increased from 320 feet to over 640 feet. These differences indicate the significance of dispersivity as a modeling parameter. The agencies have simply chosen a more conservative value from the range of dispersivities than was chosen by CSSI.

The above discussion clarifies the major differences between CSSI's assumptions regarding dispersivity and the assumptions used by the agencies. The rationale behind the agencies approach to modeling is also explained.

#### Final Monitoring Well Locations

It is important to note that the actual spacing and location of POC wells is based only in part on the results of the modeling that was done. The modeling played a larger role in determining the spacing of wells on the unlined units than on the lined units. For an unlined landfill unit, it is easy to visualize that contaminant leakage could occur anywhere within the unit; therefore, the spacing between monitoring wells was based on the modeling results.

The final selection of monitoring well locations was done with the consideration of the TOT, the flow path length at each unit before a plume would exit the bottom of the aquifer, unsaturated zone spreading, and the amount of spreading within the aquifer based on modeling.

For an unlined landfill unit, it is easy to visualize that contaminant leakage could occur anywhere up to the edge of the trench. For a lined landfill unit, the sumps understandably have a higher than average potential for leakage due to the additional seaming and possible continual head on the system. Therefore, both the agencies and CSSI determined that, for lined landfill units, monitoring wells were necessary directly downgradient of each sump. However, 50% or more of the waste placed in these units will be located directly above the side slopes. This means that there will be significant traffic, compaction, and possible differential slippage between liners in the side slope areas. The agencies can not agree with CSSI that only 1% of the total probability of leakage in the entire system should be assigned to the side slopes.

For all of the reasons specified above, DEQ and EPA will adhere to the monitoring well spacing as proposed in the draft permit and will not modify permit conditions IX.A.(1) and IX.A.(2), except as otherwise discussed in this response.

119. IX.A.(3)(a)

(p. 176)

DEQ and EPA agree that some of the Level 1 piezometers could be deleted from the water level measurement program without sacrificing the quality of the groundwater contour maps. Accordingly, the agencies will revise this condition to delete the following piezometers: W3, U, W1, and 2S. The agencies believe that the remainder of the Level 1 piezometers specified in the draft permit are necessary to maintain accurate groundwater contour maps.

120. IX.A.(3)(b)

(p. 177)

DEQ and EPA agree that some of the Level 2 piezometers could be deleted from the water level measurement program without sacrificing the quality of the piezometric head contour maps. Accordingly, the agencies will revise this condition to delete the following piezometers: W3, W4, U, W1, Z, 2D, 2I, 2G, 2S, and 2A. The agencies believe that the remainder of the Level 2 piezometers specified in the draft permit are necessary to maintain accurate piezometric head contour maps. In addition, a typographical error in this condition will be corrected. Well 2K was listed twice. One of the listings was intended to be well 2X.

121. IX.B.

(p. 178)

The Part B permit application did not contain adequate information to describe monitoring well design and construction, as stated in the Fact Sheet. Therefore, the agencies have specified the requirements that must be followed. DEQ and EPA disagree that the permit conditions in this section, [IX.B.(1) through IX.B.(8)], are overly restrictive. The agencies do agree that these conditions limit the options available to CSSI and, to that extent, do not provide all the flexibility that CSSI would desire.

The permit is intended to delineate design requirements and operational procedures that will be employed at the facility. The permit was not intended to be a trigger for negotiation between the facility and the agencies. These negotiations and approvals, as requested by CSSI, would deprive the public of its due process and opportunity to comment on well construction design. In regard to specific comments raised in this section [conditions IX.B.(1) through IX.B.(8)], CSSI has raised some valid issues and the agencies will revise those conditions as noted in the following responses.

122. IX.B.(1) (p. 179)

The use of air rotary or cable tool drilling methods are the two methods that CSSI has used throughout its hydrogeologic characterization process and installation of the current monitoring network. However, the DEQ and EPA will revise this permit condition to allow CSSI to demonstrate that other methods are appropriate for use at this site. This would not require a modification to the permit under 40 CFR §270.41. This revised language will accommodate CSSI's concern that the use of only air rotary or cable tool methods are too restrictive and will allow the use of a new drilling technology, if such a technology should become available during the term of the permit.

123. IX.B.(3) (p. 179)

DEQ and EPA disagree with CSSI that the use of only geophysical logging of the new borings for the monitoring wells may be too restrictive. While there have been historic problems at this site in correlating cores from borehole to borehole, the use of geophysical logging at CSSI has been shown to be a very useful and practical method of identifying changes in the geologic strata and moisture content. The agencies would encourage CSSI to confirm the results of geophysical logging by coring, but believe the requirement to conduct both geophysical logging and coring would be redundant.

Additionally, the agencies have reconsidered the provision to drill the level 2 wells only to with five feet of the estimated surface of the Priest Rapids basalt member. The agencies believe that the wells should be drilled to the surface of the basalt, in order to screen and monitor the entire uppermost aquifer. The risk of communication of possible groundwater contamination to the basalt member is outweighed by the need to monitor the entire thickness of the aquifer. The agencies believe that ~~this is very~~ important, particularly in consideration of the possible ~~dense~~ nonaqueous phase liquids and the downward gradients in some locations. This permit condition has been modified to require that these wells be drilled to the surface of the basalt.

Of the two methods, DEQ and EPA believe that geophysical logging information will provide the best data for selecting the correct positions for the screening and seal placement to ensure separation of Level 1 and Level 2 monitoring wells. Therefore, this permit condition will not be revised.

124. IX.B.(4) (p.180)

CSSI correctly noted that the language of this condition in the draft permit was incorrect. DEQ and EPA will revise the wording to specify that 3 feet of bentonite seal be installed above the silica sand filter and that the remainder of the boring be grouted to the surface with 4% to 5% bentonite/cement grout.



125. IX.B.(5) (p. 181)

DEQ and EPA agree to revise this permit condition, using the general wording proposed by CSSI. The revised wording is equally accurate and enforceable to the language contained in the draft permit condition. The determination of whether a confining layer is "significant" will be determined by the geologist present during drilling.

Any new single completion wells will be screened without regard to screen length. In other words, the entire saturated thickness of the aquifer will be screened from a distance of three feet above the water table to the Priest Rapids basalt. As stated in response number 123 of this document, the agencies have reconsidered the provision to drill the wells only to within five feet of the estimated surface of the Priest Rapids basalt member. The agencies believe that the wells should be drilled to the surface of the basalt, in order to screen and monitor the entire uppermost aquifer. The risk of communication of possible groundwater contamination to the basalt member is outweighed by the need to monitor the entire thickness of the aquifer. The agencies believe that this is very important, particularly in consideration of the possible dense nonaqueous phase liquids and the downward gradients in some locations. This permit condition has been modified to require that these wells be drilled to the surface of the basalt.

The agencies' rationale for this change is that they believe a reasonably high level of confidence in the monitoring data can be maintained, even though the effect of dilution of the water samples may be increased. Potentially, up to 11 double completion wells could be replaced with 11 single completion wells. The majority of the monitoring network (all existing monitoring wells), will be maintained as discrete level 1 and level 2 wells.

126. IX.B.(6) (p. 182)

DEQ and EPA agree to revise this permit condition to reflect the language proposed by CSSI. The revised wording is equally accurate and enforceable to the language contained in the draft permit condition.

127. IX.B.(7) (p. 183)

DEQ and EPA agree to revise this permit condition to accommodate the concerns mentioned by CSSI. The agencies did not intend that wells for future or proposed waste management units be installed until those units are constructed. The agencies will, however, stipulate that the new wells be installed and operational within 30 days of prior to operation of the units. The term "operational" will mean that the water level elevations in these wells have stabilized. This will require that CSSI plan their construction schedule to account for stabilization time, based on its previous experience from other wells that have been drilled.

128. IX.B.(7) and IX.B.(8) (p. 184)

DEQ and EPA agree to revise this condition to reflect the language proposed by CSSI. The revised wording is equally accurate and enforceable to the language contained in the draft permit condition.

129. IX.C.(2) (p. 185)

Refer to response number 118 in regard to the agencies' position on well placement IX.A.(1) and IX.A.(2). This condition will not be modified.

130. IX.C.(3) (p. 185)

DEQ and EPA agree to revise this permit condition to delete the requirement that all wells be sounded biennially. However, the language proposed by CSSI is not adequate to resolve this issue. The measurement of purge volumes may not provide confirmation of whether significant silting has occurred, because the necessary volumes can be removed over any time frame. The measurement of turbidity of a water sample has some relationship to potential siltation of the well, but it is not possible to know if the sediments are entering the well only during pumping or if sediments are accumulating in the screen below the pump.

This condition will be revised to specify that all piezometers be sounded on a biennial basis and specific capacity will be measured for all monitoring wells on a biennial basis. The specific capacity will be determined during the first sampling event after permit issuance for existing wells and on the initial sampling event for new wells. If the specific capacity for any well decreases by more than 20% of the original value, the well must be redeveloped.

131. IX.C.(4)(a) (p. 186)

Refer to response number 130, regarding this issue. Rather than requiring monitoring wells to be redeveloped after one foot of sediment has accumulated, the agencies will revise this permit condition to require redevelopment of all monitoring wells in which the specific capacity drops by more than 20%. Since piezometers can be sounded, the one foot of sediment accumulation still provides a good basis for redevelopment. If CSSI is correct in its assertion that sediment can not accumulate in piezometers because they are not pumped, then redevelopment will not be an issue.

**Note:** Due to the rewording of permit condition IX.C.(3), conditions IX.C.(4), IX.C.(4)(a), and IX.C.(4)(b) have been deleted from the permit.

132. IX.D.(2) (p. 187)

DEQ and EPA agree that determination of barometric efficiency at each monitoring well and piezometer would take a significant length of time. During the hydrogeologic characterization effort, CSSI put a considerable amount of effort into convincing the agencies that barometric changes were significant enough to change the gradients between level 1 and level 2 wells and to change the horizontal flow direction in some areas. CSSI now seems to be arguing the alternate hypothesis -- that barometric efficiency does not have a significant effect on flow direction.

Based on the information provided during the characterization effort, the agencies believe barometric efficiency will account for some degree of variation in water elevation levels and piezometric heads at this facility. However, it appears that the change may not be significant enough to impact the design of the groundwater monitoring system.

Therefore, DEQ and EPA will revise this condition to delete the requirement that barometric efficiency be determined at each well and piezometer. Instead, the agencies will require that all water level and head measurements for each sampling event be taken within a single day, during which there is less than a 20 percent change in barometric pressure. This method will address the agencies' concerns about the level of consistency and reliability of the data, while not being overly burdensome to CSSI. CSSI will have to maintain records of the barometric pressure during the time water level and head measurements are being taken.

One additional change will be made to this permit condition. The draft permit required that groundwater contour maps be submitted to the agencies by September 1 of each year. Since CSSI has requested that sampling be done during the fall and the spring, to avoid inclement weather conditions, the submittal date will be changed to June 1 of each year.

133. IX.D.(4)(c) (p. 189)

CSSI and EPA agree to revise this condition by adding the following language at the end of the sentence: "...in the event that contamination of the groundwater is confirmed, based on the criteria specified in permit conditions IX.F. through IX.F.(7)". This language prevents the agencies from being arbitrary and ties the agencies' decision into the specific procedures explained in the data evaluation section of the permit.

134. IX.D.(5) (p. 191)

CSSI has argued, on several occasions, that the existence of numerous wells provides a conduit for contaminants to reach the aquifer. CSSI stated that it wished to close wells not planned for further use, in order to prevent the conduit scenario. CSSI now seems to be arguing the opposite position -- that expeditious closure of such wells is not important or necessary. The agencies do not believe that it is prudent to allow wells to remain open unless they are connected, in some way, to the current monitoring program or as part of a planned future monitoring program or characterization effort. CSSI must make the determination of whether wells are necessary to future development at the site.

The agencies thought that CSSI was planning closure of extraneous wells soon after permit issuance; and, therefore, did not specify a time schedule for closure in the permit. The agencies will now modify this condition to require that all wells or borings not associated with the existing monitoring network or necessary (by CSSI's determination) to future site development must be closed within two years after the effective date of this permit.

Note: For clarification, condition IX.D.(6) will be modified to specify that the laboratory detection limits for each parameter be reported with the analytical results.

135. IX.E.(3) (p. 191)

The requirement that VOC samples be collected when the well has recovered three feet of water was an intentional requirement by the agencies to limit the amount of exposure between the water in the wells and the air above the water. Many of the wells in the monitoring program are ~~low yield~~ wells. Therefore, in order to limit the amount of time that water is standing in the well after purging, the agencies have determined that three feet of recovery is reasonable and will provide an adequate amount of sample for VOC analysis. This method minimizes the potential loss of volatile organics to the air above the water. The EPA Technical Enforcement Guidance Document states that whenever the full recovery exceeds two hours, the sample should be extracted as soon as sufficient volume is available.

Of course, the three feet of water must be available for sampling. If a well does not have dedicated sampling equipment and is sampled with a bailer, the three feet of recovery could be measured from the bottom of the well. If a dedicated sampling pump is used, water would have to recover to a height three feet above the top of the pump. This volume of water in the four inch screen, plus the water readily available in the eight inch filter pack, should provide an ample amount of water to evacuate the sample line and fill the 100 ml collection vials for VOC analyses (including duplicates, when required).

Additionally, the agencies will provide clarification to this condition to provide some flexibility in how soon the VOC samples must be obtained after three feet of recharge has occurred. The agencies will add wording which will require that the VOC samples be collected "as soon as reasonably possible after three feet of recharge has occurred, in order to minimize the time between purging and sampling."

136. IX.E.(4) (p. 192)

DEQ and EPA agree to revise this permit condition to allow flexibility in the analytical methods for groundwater samples, as requested by CSSI. This expansion of acceptable methods is equally accurate and enforceable to the language contained in the draft permit condition. The condition will offer the choice between the use of SW-846 methods and the specific methods of the drinking water program. The alternative methods will be as follows:

Volatile Organic Compounds: EPA method 624 (40 CFR Part 136)  
(The remainder of the methods will be referenced from EPA/600-4-79-020).  
Arsenic: Method 206  
Cadmium: Method 213  
Chromium: Method 218  
Copper: Method 220  
Cyanide: Method 335.2 or 335.3  
pH: Method 150.1  
Specific Conductance: Method 120.1

In the event that an Appendix IX analysis becomes necessary, the appropriate procedures from any of the above mentioned documents can be used.

137. IX.E.(5) (p. 194)

Contrary to CSSI's comment, there is still no general consensus on the need for field filtered versus nonfield filtered samples for metals analyses. Therefore, DEQ and EPA require sampling by both methods for those facilities which wish to field filter such samples. This permit condition contains a provision to demonstrate (after 3 years) that there is no significant difference between the two methods. Additionally, ~~CSSI~~ can request a permit modification at any time, if it feels they have the onsite data to substantiate its position. At this time, there is no basis for revision of this permit condition.

138. IX.F.(1)(a) (p. 195)

Refer to the Fact Sheet (August 14, 1987) that accompanied the draft permit for the discussion on why the agencies selected 20 micrograms per liter, rather than 40 micrograms per liter, as proposed by CSSI. In addition, DEQ and EPA used the data presented by CSSI in deriving the value of 20 micrograms per liter.

A distinct cut point exists at 20 micrograms per liter, which significantly reduces the probability of false positive analytical results. While the agencies agree with CSSI that even fewer false positives will result if the value was raised to 40 micrograms per liter, they believe that the increase is not justified and that the specified value of 20 micrograms per liter provides a better, more conservative balance between proper environmental management and excessive resources (on the part of both CSSI and the agencies) devoted to confirmation and explanation of false positive results.

Finally, it appears that CSSI did not take into account the fact that methylene chloride is not included in the present list of parameters for analyses in the permit. Methylene chloride was, apparently, used to statistically justify CSSI's proposed limit of 40 micrograms per liter. The agencies agree with CSSI that methylene chloride is generally not a good volatile organic parameter for a groundwater monitoring program, due to its frequent use in laboratories and its causal effect regarding false positive results. If CSSI's statistics are adjusted for methylene chloride, the resulting number drops significantly -- from 40 to a range of 20 to 30 micrograms per liter, depending on the confidence interval selected.

Based on the above discussion, this permit condition will not be revised.

139. IX.F.(2)(b) (p. 196)

DEQ and EPA agree to delete the specific requirement for removal of dedicated pumping equipment for the second verification sample. The agencies will rely on the 90-day limit for CSSI to evaluate the data and report its findings to the agencies. This allows CSSI flexibility in deciding whether the pumping equipment should be removed and, at the same time, ensures that the agencies will receive a report detailing the investigation within 90-days.

Permit conditions IX.F.(2), IX.F.(2)(a), and IX.F.(2)(b) will be combined into a modified condition IX.F.(2), which will read as follows:

"Upon detection of VOC concentrations in any downgradient monitoring well exceeding the criteria specified in permit condition IX.F.(1)(a) and/or IX.F.(1)(b), the Permittee shall immediately collect two samples from any affected well(s), purging the well(s) between samples, and reanalyze both samples for ~~all~~ VOC's listed in Attachment 26 (now renumbered as Attachment 10), Section 6, Table 6-1."

140. IX.F.(3)(b) (p. 197)

DEQ and EPA agree to revise this permit condition to reflect the language proposed by CSSI. The revised wording provides a more accurate and clear interpretation of the applicable regulation.

In addition, the agencies will modify condition IX.F.(3) to reflect the change made to conditions IX.F.(2) and to clarify the requirement for Appendix IX monitoring. Condition IX.F.(3) will read as follows:

"If analytical results from both verification samples described in permit condition IX.F.(2) confirm the detection of VOC above the statistical monitoring criteria, the affected well(s) shall be sampled within 14 calendar days and analyzed for the constituents identified in 40 CFR Part 264 Appendix IX. Within 90 calendar days of the receipt of the Appendix IX results, the Permittee shall submit to the Director and the Administrator either of the following:"

The agencies will modify condition IX.F.(3)(a), because a compliance monitoring program, as defined in 40 CFR §264.99, is unnecessary in this case for confirmation of contamination. In effect, the groundwater protection standard that would normally be established in a compliance monitoring program has already been established in conditions IX.F.(1)(a) and IX.F.(1)(b). Additionally, the requirement for Appendix IX monitoring, another component of a compliance monitoring program, is being addressed under condition IX.F.(3). Condition IX.F.(3)(a) will be revised to read as follows:

"An application for a permit modification, to establish a corrective action program meeting the requirements of 40 CFR §264.100."

141. IX.F.(4) (p. 198)

DEQ and EPA agree that the requirement for a report or permit modification request may not be necessary, based on inconsistent results. The permit must, however, cover the possibility that only one of the verification samples obtained under condition IX.F.(2) will show contamination. Therefore, the requirement of condition IX.F.(4), as it was contained in the draft permit, has been changed to require reinitiation of the verification procedure specified in condition IX.F.(2). This requirement has been added to permit condition IX.F.(5).

The agencies believe that further explanation is needed to describe the procedures to be followed if contamination is shown to have come from the waste management units. Therefore, permit condition IX.F.(4) will be expanded to IX.F.(4) through IX.F.(c), as follows:

IX.F.(4) "If the Permittee is unable to identify any source of contamination (in accordance with permit condition IX.F.(3)(b), ~~other than the waste management unit, then the Permittee shall do the following:~~

IX.F.(4)(a) "Immediately sample all monitoring wells at the point of compliance of the affected waste management unit for Appendix IX constituents and continue this sampling quarterly until the permit is modified or for a period of one year; and,"

IX.F.(4)(b) "Establish the background concentration of all Appendix IX parameters identified at the point of compliance, as specified at 40 CFR §264.97(g); and,"

IX.F.(4)(c) "Submit an application for a permit modification within 90 calendar days to establish a corrective action meeting the requirements of 40 CFR §264.100."

**Note:** Permit condition IX.F.(5), as contained in the draft permit has been revised to reflect the changes in conditions IX.F.(2) and IX.F.(4). Permit condition IX.F.(5) will be revised to read as follows:

"If analytical results from only one of the verification samples described in permit condition IX.F.(2) confirms the detection of VOC above the statistical monitoring criteria, the Permittee shall return to the verification procedure, which begins in permit condition IX.F.(2)."

"If analytical results from both verification samples described in permit condition IX.F.(2) fail to confirm the detection of VOC above the statistical monitoring criteria, the Permittee shall resume detection monitoring according to the standard semi-annual schedule, (or annual sampling event for past practice units), and notify the Director and the Administrator, in writing within 14 calendar days, that the detection monitoring program is being resumed."

142. IX.F.(6) (p. 199)

DEQ and EPA agree to modify this condition to address the concerns raised by CSSI. The language regarding the "first six (or three for past practice units) sampling events" will be changed to "first three years following the effective date of this permit". The word "completed", in the third sentence, will be changed to "completed by the Permittee". Finally, the last sentence will be revised as follows "...notify the Permittee, in writing, if any permit modification in accordance with permit condition IX.F.(7) is required." This revised wording is equally accurate and enforceable to the language contained in the draft permit condition.

143. IX.F.(7) (p. 201)

DEQ and EPA agree to revise this permit condition to provide more clarity and objectivity to the trigger for corrective action or other modification to this permit. The revised condition will read as follows:

"Within 90 calendar days of a written request by the Director and the Administrator, the Permittee shall submit a permit modification request to modify the detection monitoring program, or to implement a correction program (40 CFR §264.100), whichever is determined to be appropriate by the Director and Administrator, based on the analytical results and data evaluation obtained under permit conditions IX.F.(1) through IX.F.(6)."

144. IX.G.(3) (p. 203)

DEQ and EPA agree to revise this condition to be consistent with the revised wording of condition II.L.(2), [see response number 46]. The revised wording is equally accurate and enforceable to the language contained in the draft permit condition.



145. Plates 1 and 2 and Table 1 (p. 204)

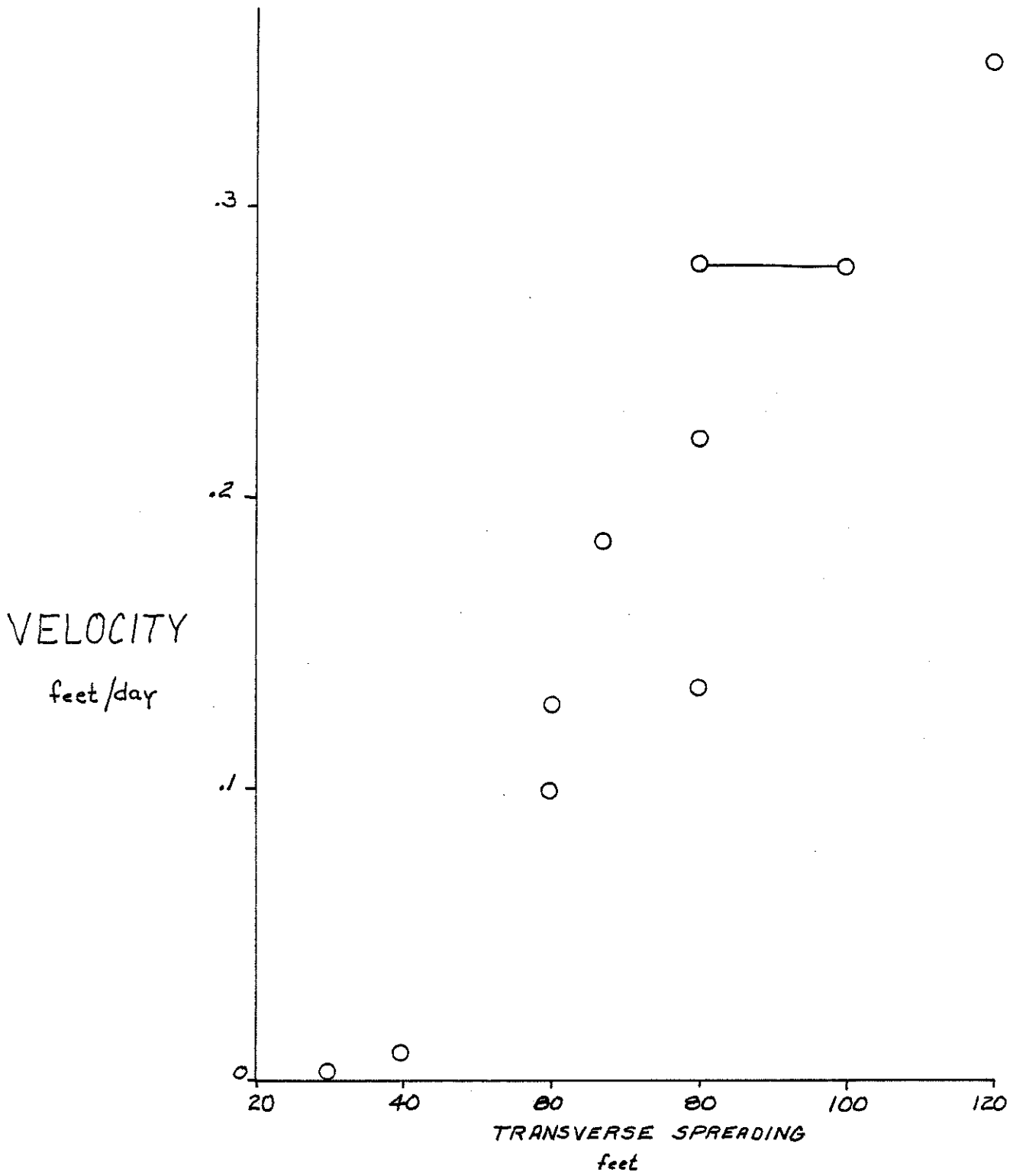
Refer to response number 118, regarding conditions IX.A.(1) and IX.A.(2). The agencies have made minor revisions to the plates and table to correct typographical errors, delete certain piezometers, change proposed wells to existing wells (around L-13 and Ponds A and B), and to make the plates more legible. Plates 1 and 2 will be combined onto Plate 1.

As a minor point, the title "Table 1" will be changed to "Table 2" in the final permit. The new table which separates state and federal authorities (see response to General Comment #1) will be labeled as "Table 1" in the final permit.

END OF RESPONSES

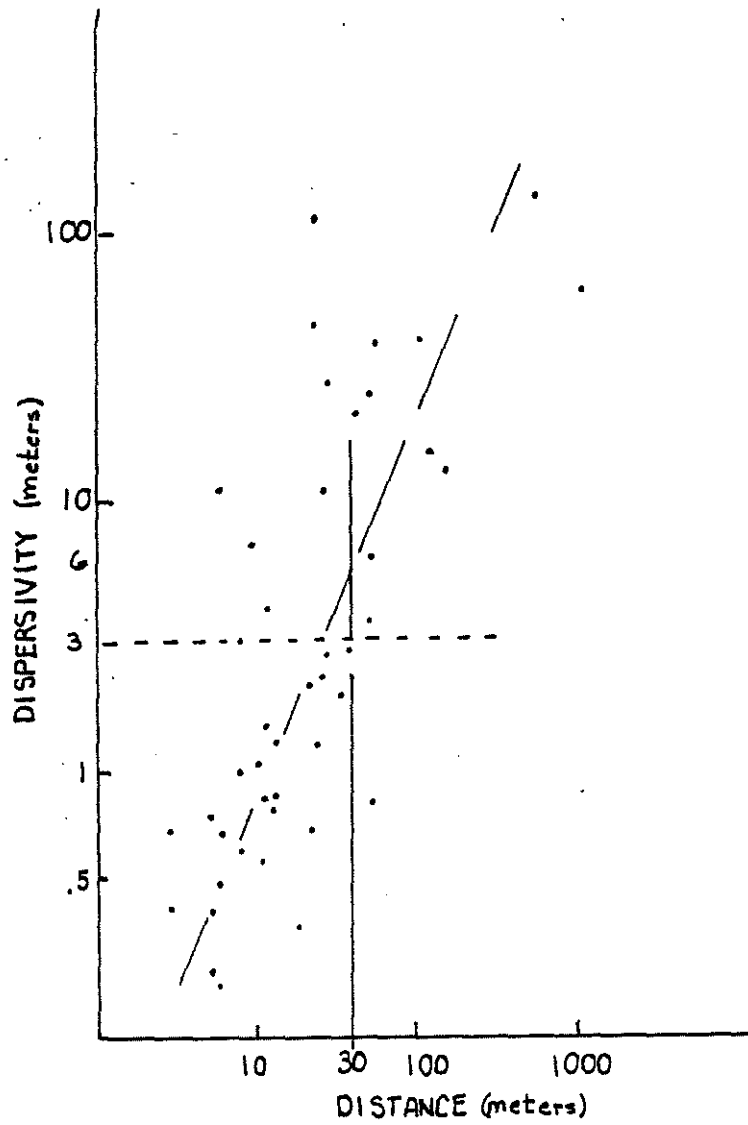
# APPENDIX

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THE AMOUNT OF TRANSVERSE  
SPREADING 100 FEET  
FROM SOURCE

FIGURE 1



MEASURED VALUES OF LONGITUDINAL DISPERSIVITY  
 AS FUNCTION OF THE PATH LENGTH OVER WHICH  
 DISPERSION IS OBSERVED (from Lallemand-  
 Barres and Peudecerf, 1978)

FIGURE 2

289

COMMENTS ON THE  
U.S. ENVIRONMENTAL PROTECTION AGENCY  
AND  
OREGON DEPARTMENT OF ENVIRONMENTAL QUALITY  
DRAFT WORK STATE PERMIT  
FOR THE  
CHEM-SECURITY SYSTEMS, INC.  
FACILITY NEAR  
BRIDGEPORT, OREGON

submitted by:

CHEM-SECURITY SYSTEMS, INC.  
State Route 10  
Bridgeport, Oregon 97812  
Telephone: (503) 454-2643

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## INTRODUCTION

On September 24, 1987, the United States Environmental Protection Agency (EPA) and the Oregon Department of Environmental Quality (DEQ) jointly issued a draft permit to Chem-Security Systems, Inc. (CSSI) for its hazardous waste treatment, storage and disposal facility near Arlington, Oregon. The EPA and DEQ issued the joint permit under Section 3005 of the Resource Conservation and Recovery Act of 1976 (RCRA), 42 U.S.C. § 6925, and the Oregon statutes regulating hazardous waste management, ORS Chapter 466. CSSI submits these comments on the draft EPA/DEQ permit.

The Arlington facility is the only commercial treatment, storage and disposal facility for hazardous waste in Oregon. The facility provides an important resource for generators and transporters of hazardous waste not only in Oregon but throughout the Pacific Northwest. CSSI is also the largest employer in Gilliam County, the Oregon county in which the facility is located.

CSSI has identified a number of areas in the draft permit that require consideration by the agencies. In each of these areas, CSSI has proposed changes to the permit. These proposed changes are to ensure that the eventual permit will be a workable and reasonable document without sacrificing its environmental protection.

These comments first provide an overview of CSSI's general concerns about the draft permit and issues that recur

throughout the draft permit. The comments then detail CSSI's specific concerns and requests for proposed changes to attachments and conditions in the draft permit. These comments follow the headings and organization of the draft permit.



## GENERAL COMMENTS

1. The Permit Must Identify the Conditions Based on EPA's Authority and Enforceable by EPA, and the Conditions Based on the DEQ's Authority and Enforceable by the DEQ.

The draft permit at page 4 of 93 explains that certain permit conditions are included in the permit based on the Oregon authorized program, that other conditions are included in the permit as Oregon only requirements and finally that other conditions are included in the permit based on EPA's authority under the Hazardous and Solid Waste Amendments of 1984 (HSWA).

The source of authority for permit conditions is a crucial factor for CSSI or any other party in evaluating the draft permit and preparing comments on it. It is important that CSSI and all other parties interested in the draft permit be able to identify the regulatory authority for a particular condition and the agency with the power to enforce that condition. It is especially important to CSSI because the permit eventually issued will govern relations between CSSI and the agencies for a ten-year period.

Because hazardous waste management is such an extensively regulated activity, there are numerous detailed regulations covering most aspects of treatment, storage and disposal. As a result, meaningful evaluations and worthwhile comments can only be prepared after examining the underlying regulatory authority for a particular permit condition. Significant in that examination is whether the authority is

derived from HSWA, the Oregon authorized program, another state requirement not connected with the authorized program, or elsewhere. Each of these regulatory programs provides differing types of authority for the agency involved.

The Fact Sheet at page 4 of 91 recognizes the importance of identifying the regulatory authority for a permit condition and the agency responsible for creating and enforcing the condition. The notice of public hearing likewise recognizes the division of authority for permit conditions and directs that public comments regarding federal RCRA conditions be directed to the EPA and that public comments regarding state RCRA conditions be directed to the DEQ.

The regulatory authority for a permit condition has significant other ramifications. Under Oregon law a request for review of a permit condition must be filed within twenty days of notification of the final decision (Fact Sheet, page 7 of 91). Review of that decision is carried out as a contested case (an administrative evidentiary hearing) with the right to present evidence and cross-examine witnesses in the hearing. After the contested case hearing, a final decision is issued by the Oregon Environmental Quality Commission. That decision is appealable to the Oregon Court of Appeals within 60 days after the Commission's decision under ORS 183.482(1). There is no automatic stay of any condition challenged on appeal of a final permit decision. A stay is available under ORS 183.482(3) only on a showing of irreparable injury and a colorable claim of error.

In contrast, for the federal permit conditions, a petition for review of any condition in the final permit must be filed with the Administrator within 30 days after notification of the final permit decision. If the Administrator grants the petition for review, any contested permit condition is automatically stayed under 40 CFR § 124.16. The permittee must follow the applicable interim status rules for that condition pending final agency action on the condition. The review by the Administrator is on the record prepared in the matter. There is no administrative evidentiary hearing and no opportunity to present evidence and to cross-examine witnesses. Judicial review of any final decision by the Administrator under 42 USC § 6976 must be filed within 90 days of the decision in a federal Circuit Court of Appeals.

These review procedures emphasize the absolute necessity for identifying the authority for each permit condition, whether federal or state. If a condition in the final permit is not identified as a federal or a state condition, a challenge to the condition will have to be filed both with the EPA Administrator and the Environmental Quality Commission. A party challenging a permit condition will have to prepare for two wholly different administrative and judicial review procedures on two completely different schedules.

For these reasons, identification of the responsible agency for each condition is imperative. Neither the draft permit nor the Fact Sheet provides the necessary identifications. The

draft permit identifies the state only requirements -- conditions I.Z., I.AA., I.BB., and II.0.(2). No other permit conditions are identified as either federal HSWA conditions or state authorized program conditions.

CSSI formally requests that the responsible agency for every condition in the permit be identified. Only in this way can CSSI protect its rights in this process. If the identifications are not provided, CSSI will be potentially prejudiced in this process and certainly will not be provided with the minimal procedural safeguards required by law.

The individual agencies routinely provide identification of the specific authority for administration actions involving hazardous waste management facilities. For example, in a recent rulemaking proceeding, the EPA separated and identified rules that were being proposed pursuant to HSWA and rules that were being proposed pursuant to other RCRA authority. 52 Fed. Reg. 30571, 30577 (Aug. 14, 1987). The EPA demonstrated the significance of the specific source of authority for each rule in its commentary on how the proposed rules would apply in states with authorized programs like Oregon:

"Certain portions of today's proposal would be imposed pursuant to pre-HSWA authority, while other portions would be promulgated pursuant to HSWA. . . . As discussed in the section above, any State requirement that is more stringent than these HSWA provisions remains in effect. States may apply for either interim or final authorization for the HSWA provisions identified in Table 1.

"The remaining amendments in today's proposal would not be imposed pursuant to HSWA. Therefore, those standards would not be effective in authorized States . . . . In authorized States, the requirements will not be applicable unless the State revises its program to adopt equivalent requirements under State law." Id.

This quotation focuses on the dilemma presented by the draft permit. The draft permit appears simply to be based on the latest RCRA rules with four conditions added that are non-RCRA state conditions. All of the latest RCRA rules, however, are not a part of the Oregon authorized program. Oregon's authorized program contains the RCRA rules through April 30, 1985 (Draft Permit, p. 4 of 93). More current RCRA rules have either not been adopted by Oregon or have been adopted by Oregon but not approved by the EPA as part of Oregon's authorized program.

Those conditions in the permit that are based on changes in the RCRA rules after April 30, 1985 (except for HSWA rules because they are self-implementing), should not be in the permit because they are not part of the Oregon authorized program. For example, 40 CFR §264.112(b)(6), under which the agencies are requiring exact closure dates for units was promulgated after April 30, 1985 and is not part of the state authorized program. The rule in the Oregon authorized program, 40 CFR §264.112(a)(4), provides for "an estimate of the expected year of closure" for each unit. (See the Reason/Rationale for the comment on condition II.J.(7) infra).

The Oregon Legislature has also directed that state statutes and rules enacted after July 13, 1985 do not apply to

CSSI's Part B permit application. Chapter 670, Section 48, 1985 Oregon Laws (Senate Bill 138) provides:

"Notwithstanding, any other provision of this Act, the Commission shall process any application submitted to the commission on or before January 31, 1984, for renewal of a license to operate a PCB or hazardous waste disposal facility operating on the effective date of this Act, according to the provisions of ORS 459.410 to 459.450 and 459.460 to 459.490 as those sections read before the effective date of this Act."

CSSI's permit application was submitted to the Environmental Quality Commission before January 31, 1984 and, thus, qualifies for this provision. Testimony during the considerations of Chapter 670 support this conclusion. During floor debate, Senator Day from the Senate Committee that drafted the bill and Representatives McCracken and Throop from the House Committee that revised the bill testified that Section 48 of the bill meant that CSSI's Part B permit application was to be processed under the law that existed in Oregon before the enactment date of the law (July 13, 1985).

Identification of the agency responsible for each permit condition will also straighten out one other critical aspect of the draft permit. Many permit conditions specify that "the Director and the Administrator" have authority regarding the condition. In many cases the draft permit requires CSSI to obtain approval of the Director and the Administrator before certain actions can be taken. It is virtually impossible for both agencies to have authority regarding most of the permit conditions. Identification of the responsible agency will

eliminate the confusion because only the Director or the Administrator will be identified as the responsible official.

Once the agencies have made the necessary identification, the following permit conditions must be modified to provide the responsible official for the condition, whether it is the Director or the Administrator or both:

Introduction, p. 4 of 93

Definitions, g.

I.D.(3)	II.I.(7)	V.B.(5)(b)
I.H.	II.J.(3)	VI.A.(6)
I.L.	II.J.(4)	VI.A.(8)
I.M.	II.J.(6)	VI.B.(5)
I.N.(2)	II.J.(10)	VI.B.(7)(c)
I.O.	II.J.(13)	VI.B.(7)(d)
I.P.(1)	II.J.(14)	VI.B.(8)
I.P.(2)(a)	II.J.(15)	VI.B.(10)
I.P.(2)(b)	II.K.(3)	VII.A.(3)
I.Q.	II.K.(7)	VIII.C.(3)(c)
I.S.	II.L.(2)	VIII.C.(4)
I.T.	II.L.(3)	VIII.D.
I.U.(1)	II.M.(3)	IX.B.(1)(a)
I.U.(3)	II.N.(2)	IX.D.(2)
I.V.	II.N.(3)	IX.D.(4)(b)
II.A.(2)	II.O.(3)	IX.D.(4)(c)
II.B.(1)	IV.A.(2)	IX.D.(6)
II.C.(1)(6)	IV.B.(2)	IX.E.(5)
II.E.(4)(a)	IV.C.(5)	IX.F.(3)
II.E.(4)(b)	IV.D(5)(a)	IX.F.(4)
II.E.(4)(c)	IV.E.(6)	IX.F.(6)
II.I.(1)(b)	IV.F.(6)	IX.F.(7)
II.I.(3)	V.A.(7)(b)	IX.G.(2)
II.I.(4)	V.A.(9)	IX.G.(3)
II.I.(6)	V.A.(11)(c)	IX.G.(4)
	V.A.(11)(d)	

2. Certain Permit Conditions Impose Requirements Beyond Those Required by 40 CFR Part 264.

In the draft permit, the agencies cite 40 CFR § 270.32(b)(2) as broad authority to impose conditions that go beyond the provisions of 40 CFR Part 264. For example, the permit

specifically cites 40 CFR § 270.32(b)(2) as authority for conditions II.A.(1), II.J.(15), III.D.(1) and IV.B.(2). For numerous other conditions the agencies do not cite a specific regulatory basis, and it is not apparent whether the agencies are trying to use 40 CFR § 270.32(b)(2) as authority for these conditions. For other conditions, the agencies have significantly revised the requirements of the RCRA rules in ways that are more than clarifications or interpretations.

CSSI objects to the incorporation of conditions in the permit that impose conditions beyond the RCRA requirements. Several factors support this objection.

First, 40 CFR § 270.32(b) is based on Section 3005 of RCRA, as amended by HSWA. Both the regulations and Section 3005 limit EPA's authority to impose additional permit conditions where necessary to protect human health or the environment. Neither agency has made any finding that additional conditions beyond those established in 40 CFR Part 264 are necessary to protect human health and the environment at the facility. Before the agencies can impose additional conditions on CSSI, specific findings must be made that the additional conditions are necessary to protect human health and the environment. In addition, any such findings must be supported by technical evidence showing that use of the 40 CFR Part 264 regulations is inadequate to protect human health and the environment.

Second, the nature of geologic, hydrogeologic, and topographic features at the facility render it technically



impossible for the agencies to make a finding that additional permit conditions are necessary to protect human health and the environment. The agencies appear to be taking the position that any condition they desire to impose on CSSI is necessary to protect human health or the environment. In taking this position, the agencies neglect to document the rationale for measures devised ostensibly to protect human health or the environment.

Moreover, the agencies have failed to consider adequately the technical data submitted by CSSI. These data demonstrate that the facility is isolated physically and geologically from human and animal populations and water resources. Due to the unique characteristics of the facility, which are amply detailed in the application materials, it is highly unlikely that a release of hazardous wastes might occur such that a threat to human health or the environment would be posed. As a consequence, there is no basis for the agencies to impose additional permit conditions beyond those established in 40 CFR Part 264.

Third, the agencies have denied CSSI due process by adopting additional permit conditions beyond those established by 40 CFR Part 264. Part 264 contains regulations establishing standards that are to be incorporated into hazardous waste facility permits (40 CFR Part 264; see also RCRA Section 3004, 3005, 42 USC §§ 6924, 6925). Under the Administrative Procedure Act (APA), 5 USC § 551, et seq., such regulations generally may only be promulgated after public notice and opportunity for

comment [5 USC § 553; Environmental Defense Fund, Inc. v. Gorsuch, 713 F.2d 802, 814-816 (D.C. Cir. 1983) (holding hazardous waste facility regulations subject to APA requirements)]. Further, RCRA itself mandated public hearings prior to the promulgation of the original hazardous waste facility regulations (RCRA Section 3004(a), 42 USC § 6924(a)). Although it has been held that the 1984 amendments to RCRA authorized changes to the 40 CFR Part 264 regulations without APA compliance, EPA's enactment of 40 CFR § 264.101 without notice and comment recently was upheld under the APA's "interpretative rule" exception only because it tracked the statutory language of RCRA Section 3004(u) and did not impose any new obligations [United Technologies v. Environmental Protection Agency, 821 F2d 714, 718-20 (D.C. Cir. 1987); see 5 USC § 553(b)(3)(A)].

In contrast, the agencies are incorporating, without a prior rulemaking, conditions that are considerably more than interpretations or clarifications of statutory requirements. The agencies are imposing requirements that RCRA and the APA contemplate as subject to rulemaking. If a statute requires an agency to use the rulemaking process and the agency fails to do so, the agency action is void [State of Washington v. Environmental Protection Agency, 573 F.2d 583, 588-591 (9th Cir. 1978) (voiding EPA veto of water discharge permit on ground that exercise of veto power was statutorily predicated on prior promulgation of regulations)]. Additionally, EPA already has promulgated substantial hazardous waste facility regulations after

extensive public notice and comment (E.g., 45 Fed. Reg. 33153, 33156 (May 19, 1980)). EPA now seeks to impose additional requirements without public scrutiny. Yet, agencies may not alter promulgated regulations without APA compliance [Environmental Defense Fund v. Gorsuch, 713 F.2d at 817 (refusal to seek RCRA Part B applications from certain classes of hazardous waste facilities is subject to APA where existing regulations required applications for those classes)]. In this case, despite statutory requirements and preexisting regulations, no public notice and comment have taken place concerning these new and additional requirements for hazardous waste facilities.

The agencies' reliance on 40 CFR § 270.32(b) as justification for incorporation of additional permit conditions subverts the administrative rulemaking process and denies CSSI due process. Section 3005 of RCRA, as amended by HSWA, does not give and was not intended by Congress to give the agencies authority to bypass the rulemaking process. That section only authorizes the adoption of specific additional provisions, where necessary to protect human health and the environment at a specific facility. The agencies must employ the formal rulemaking process if they wish to impose extraordinary requirements.

For certain other conditions the agencies have gone beyond the regulatory requirements without even attempting to justify their actions. The typical comment in the Fact Sheet is that the requirements of a rule from 40 CFR Part 264 have been "slightly modified for clarification." This is no more than a

euphemism for an attempt to deprive CSSI of its rights and the protections provided by the RCRA rules.

As an example, 40 CFR § 270.30(b) requires that a permittee supply to the applicable agency "within a reasonable time" any information requested by the agency. The agencies reflect this requirement in condition I.L. and note in the Fact Sheet (p. 14 of 91) that the regulatory requirement has been "slightly modified for clarification." The "slight modification" by the agencies was to delete the phrase "within a reasonable time." Such a deletion is not a clarification of the regulatory requirement but an attempt to deprive CSSI of the protections and rights provided by the regulations.

The agencies have taken similar liberties with numerous other provisions of the RCRA rules, justifying each by a comment that the rule has been "slightly modified for clarification." These are chiefly among the Standard Conditions and General Facility Conditions and are discussed in specific comments on the conditions.

Finally, CSSI objects to the inclusion of permit conditions for the facility which have not been required for all other commercial off-site TSDFs in the country. The imposition of special requirements for the facility which have not been required for other commercial off-site TSDFs represents an unconstitutional violation of the Equal Protection clauses of the Fifth and Fourteenth Amendments to the United States Constitution. There

are no valid reasons for treating CSSI differently than other commercial off-site TSDFs across the country.

There is no evidence that a facility located in Oregon deserves or requires a greater degree of regulation than TSDFs located in other areas of Region X or in other states. In fact, the contrary is true. The amount of rainfall in the Arlington area, for example, is much less than the level of rainfall experienced in other parts of the United States. Similarly, the unique geologic and hydrogeologic conditions beneath the facility provide additional protection for human health and the environment not present at facilities located in other regions. Accordingly, it is improper for the agencies to impose provisions on CSSI that are not required for all similarly situated TSDFs. The imposition of such requirements places CSSI at a competitive disadvantage to other TSDFs which are not required to comply with the same requirements.

3. The Permit Erroneously Incorporates Descriptive Material from the Permit Application in Permit Conditions.

Throughout the permit, the agencies have taken descriptive material submitted by CSSI in its permit application and, by rote, turned this material into enforceable permit conditions by incorporating sections of the application as attachments to the permit.

CSSI does not object to the incorporation into the permit of documents, such as the Waste Analysis Plan or the Contingency Plan, that are required to be prepared and maintained

under 40 CFR Part 264 and are required to be in the permit. CSSI also agrees that the agencies have latitude to incorporate certain portions of the application into the permit so long as those application sections are narrowly drawn to represent enforceable conditions based on appropriate substantive provisions of the regulations. However, in this case, the inclusion of many of the plans, specifications and drawings from the application has resulted in a permit that contains provisions which are more detailed than the regulations which they supposedly are intended to address or which cover portions of the facility or operations not directly related to regulated activities. Some of the attachments containing sections that should not have been incorporated in the permit are:

- Attachment 4: Inspection Plan
- Attachment 6: Hazards Prevention
- Attachment 10: Closure and Postclosure Plans--Cost  
Estimates
- Attachment 11: RCRA Part A Permit Application
- Attachment 12: Container Storage--Design and Operations
- Attachment 13: Bulk Liquid Storage--Design and  
Operations
- Attachment 14: Stabilization Unit--Design and Operations
- Attachment 19: Landfill/Impoundment Technical  
Specifications
- Attachment 20: Soil Liner Details
- Attachment 21: Synthetic Liner Details

Attachment 23: Landfill--Design and Operation

Attachment 25: Surface Waste Management Plan

Attachment 26: Groundwater Monitoring Program

In incorporating these sections of the application, the agencies have failed to recognize that CSSI's plans for operating the facility and its plans for complying with 40 CFR Part 264 are not in all instances co-extensive. Many of these plans describe CSSI policies and procedures that go far beyond regulatory requirements. In fact, some of the documents the agencies have incorporated into the permit were not even prepared for the permit application but were existing internal documents having nothing to do with the Part B process. The agencies apparently wanted to see them during the application review process. Nowhere in the RCRA regulations is it announced that descriptive material provided in a Part B permit application will be incorporated wholesale into a RCRA permit.

Obviously, CSSI assumed that it was the agencies' function to use the information gathered from CSSI to draft specific permit conditions addressing specific regulatory requirements. Had CSSI been aware of the use to which the agencies would put this material, CSSI might have drafted its application with a much narrower focus -- specifying in more concise language the minimum necessary to achieve regulatory compliance. Other permit applicants could satisfy the information requirements of 40 CFR Part 270 with far less detailed descriptions. With CSSI's experience before them, they may also

be careful to specify the bare minimum necessary to meet the standards of 40 CFR Part 264. Also many other permit applicants may not have prepared detailed documents similar to CSSI's.

In short, it now appears that CSSI's effort to provide the agencies with the fullest possible disclosure has been put to an unforeseen and inappropriate use. The result is that the Arlington facility may well be subject to far more inflexible operating conditions than other RCRA facilities.

Furthermore, few if any of the incorporated application sections can be read as standards or requirements for future action. See, for example, the comment on Attachment 21, Exhibit 5B, infra. Some sections contain historical information, others, descriptions of operations unrelated to hazardous waste management. Obviously, such portions of the permit are ambiguous and confusing at best when read as permit conditions. CSSI is entitled to more notice as to what is expected of it in terms of the permit.

This issue did arise in a recent administrative action. In the Matter of Velsicol Chemical Corp., Applicant, Permit No. TND-061-314-803, RCRA Appeal No. 83-6. In that case, the hearing officer indicated that although the Agency has authority to incorporate sections of the permit application, the provisions incorporated must not be overbroad. Velsicol, page 8. In the Velsicol case, the Administrator remanded the matter to the Agency to reconsider how permit conditions could be drafted to avoid overbreadth. Here, CSSI has attempted to identify those portions



of the application which are overbroad and exceedingly detailed. CSSI has attempted to provide the information necessary to allow the agencies to change the permit to conform to the regulations. CSSI formally requests that it be given the opportunity to meet with the agencies to attempt to craft narrower permit conditions which comply with the regulations yet avoid excessive detail or ambiguity.

Following are examples of the attachments or specific parts of attachments that must be deleted and a discussion of the reasons deletions must be made. Primarily, it is drawings, operations plans, and specifications which require such review.

In the event that the agencies nevertheless decide to retain the full attachments, CSSI has also provided specific comments on the attachments. In providing these specific comments, CSSI does not waive its objection to the inclusion of these attachments in the permit.

A. Attachment 6: Hazards Prevention

Attachment 12: Container Storage--Design and Operations

Attachment 13: Bulk Liquid Storage--Design and  
Operations

Attachment 14: Stabilization Unit--Design and Operations

Attachment 23: Landfill--Design and Operation

Each of these attachments was submitted to the agencies for informational purposes under 40 CFR Part 270. Thus, much of the information contained in these attachments is not necessary to fulfill substantive regulatory requirements in 40 CFR Part 264.

Indeed, a great deal of it involves descriptions of past activities. There are no specifications of standards or requirements for future action. While the attachments themselves do note in the margins where the information fulfills 40 CFR Part 264 requirements, the information is not necessarily presented in such a way as to be used as an enforceable condition. Under these circumstances, the agencies should delete those application sections which do not address a specific 40 CFR Part 264 requirement. For those that do address a specific Part 264 requirement, the sections should be reviewed to determine whether they can be treated as enforceable conditions. In the alternative, the agencies should use the information submitted as a basis for drafting enforceable permit conditions.

A. Attachment 4: Inspection Plan

Delete the inspection forms from this attachment. Neither the inspection forms nor the Inspection Plan are required to be included as permit conditions. However, CSSI would be willing to leave the Inspection Plan in the permit so long as the forms are deleted. Because of the constantly changing nature of CSSI's operations, the forms must be modified regularly to reflect better methods of recording inspections, as well as new items to be inspected, etc. Under these circumstances, CSSI requests that the forms be removed from the permit, Attachment 4. In the alternative, all references to an Inspection Form in the Inspection Plan should be read as the particular Inspection Form "or its equivalent".

B. Attachment 10: Facility Closure and Post-Closure  
Plans -- Cost Estimates

This attachment is incorrectly included as a condition of the permit. A cost estimate for closure and a cost estimate for post-closure care of waste management units is required by 40 CFR §§ 264.142 and 264.144 to estimate financial assurance and must be updated according to those rules. There is no requirement that these estimates be a part of the permit.

Such a requirement would make it extremely difficult to change the financial assurance as required by the regulations. In fact, CSSI submitted cost estimates as part of its Part B permit application and these estimates need to be revised already. They will be adjusted after final disposition of the permit. This exemplifies the dilemma. The process of revising estimates whenever necessary will be best facilitated, if the cost estimates are not included as a permit requirement.

C. Attachment 11: RCRA Part A Permit Application

The Part A permit application, to the extent it is duplicative of the Part B permit application, and to the extent it describes historical site information or references to the current site license (HW-1) should be deleted. There is no reason for such level of detail when the Part A and Part B applications were to be consistent.

Perhaps more importantly, the unnecessary inclusion of this attachment could, in fact, result in conflicting permit conditions. For example, the Part A permit application described

existing processes and units as well as capacities. Yet these same processes and units are addressed in the permit itself by inclusion of sections of the Part B permit application. If a major permit modification is made to address, for example, a change in a process or to add a process or unit, both the Part B attachments and the Part A must also be changed or there will be a conflict.

To the extent the pertinent issues covered by the Part A permit application are already addressed elsewhere in the incorporated sections of the Part B permit application, this attachment should be deleted.

D. Attachment 19: Landfill/Impoundment Technical Specifications

These technical specifications require a level of detail in the permit which is unnecessary to meet any practical substantive statutory or regulatory requirement.

For example, under condition VI.B.(3)(b), CSSI is required to retrofit the cells in Landfill L-13 in accordance with the specifications in Exhibits 16A, B, C, D of Attachment 19 as well as the landfill drawings in Attachment 24. While certain sections of these specifications may be pertinent, the inclusion of the entire set of specifications is not necessary to ensure compliance with the minimum technology requirements for landfills especially in light of the fact that the drawings are also included as permit conditions. As previously explained, including

such a level of detail in the permit is not only unnecessary but also overly burdensome to CSSI.

For these reasons, Attachment 19 should be deleted.

E. Attachment 20: Soil Liner Details

Attachment 21: Synthetic Liner Details [Exhibit 5B Only]

Compliance with the above attachments is required by condition VI.B.(3)(b). Yet these attachments concerning soil liner details and synthetic liner details are unnecessarily incorporated into the permit as conditions. They are not necessary to ensure compliance with minimum technology requirements. The landfill drawings in Attachment 24 are sufficient to address the same regulatory issues addressed by the above materials. The only thing these materials do is introduce an inappropriate level of detail into the permit.

For example, Exhibit 5B of Attachment 21 indicates on page 21 that:

"Geosynthetic transmissions media shall be supplied in rolls wrapped in protective covers and marked or tagged with the following information:

manufacturer's name  
product identification  
lot number  
roll number and  
roll dimensions."

Clearly, this is not the type of detail contemplated by the regulations nor is this necessary to demonstrate compliance with the minimum technology standards for landfills. Yet, because this is incorporated into the permit, improper labeling by the

designer would constitute a permit violation. Attachment 20 and Attachment 21 [Exhibit 5B only] should be deleted.

F. Attachment 25: Surface Water Management Plan

This plan goes well beyond what is necessary to comply with the regulatory requirements of 40 CFR Part 264. While the agencies have not indicated the regulatory requirement which the Surface Water Management Plan was intended to address, the introduction to the plan indicates that, in part, it addresses 40 CFR §§ 264.301(f)-(h). The plan goes well beyond those regulatory requirements and should be deleted -- especially in light of the fact that Attachment 23 specifically addresses these regulatory provisions with respect to landfills. While this is not to say that CSSI will not have a Surface Water Management Plan, it should not be made part of the permit because it adds an unnecessary level of detail.

For these reasons, Attachment 25 should be deleted.

G. Attachment 26: Groundwater Monitoring Plan

This attachment contains a substantial amount of descriptive material which should be deleted from the permit. In particular, the operating and maintenance manual for Well Wizards should be deleted. This information is not at all necessary to ensure CSSI's compliance with the regulations regarding groundwater monitoring. This manual is very specific in nature and merely supplements the discussion in the groundwater monitoring plan -- the document intended to comply with the substantive portions of the regulations. To include such specific

manufacturer's information in the permit could result in the need for a major modification if any portion of this manual should change. Such a change is likely.

For these reasons, Attachment 26 should be reviewed to determine what sections are necessary to comply with groundwater monitoring requirements and which sections should be deleted altogether.

If the agencies accept the recommended deletions from the attachments in this General Comment, the following changes should be made to the permit conditions where those attachments are referenced.

#### TABLE OF CHANGES

<u>Permit Condition</u>	<u>Proposed Change</u>
<u>INTRODUCTION</u>	Revise the first sentence in the second paragraph on p. 3 of 93 to reflect the deletion of certain attachments.
<u>LIST OF ATTACHMENTS</u>	Revise the List of Attachments to reflect the deletion of certain attachments.
II.A.(2)	Delete the phrase "and specifications" from the first sentence and revise the sentence to reflect the deletion of certain attachments.
II.K.(1)	Delete the phrase "as listed in attachment 10, Appendix B and as summarized in Attachment 10, Table 3-2 of this permit" and replace with "Closure Cost Estimates maintained at the facility."
II.K.(5)	Delete the phrase "(Attachment 10, Table 3-2)."

- II.K.(6) Delete the phrase in first sentence "(Attachment 10, Table 3-2)". Delete the phrase "Attachment 10, Appendix B" from second sentence and replace with "Closure Cost Estimates maintained at the facility." Delete the third sentence.
- II.K.(7) Delete the phrase "(Attachment 10, Table 3-2)" from first and fourth sentences and replace with "Cost Estimate for facility closure." Delete the phrase "Attachment 10, Appendix B" from second sentence and replace with "Cost Estimate for facility closure."
- II.M.(1) Delete the phrase "Attachment 10" and replace with "Cost Estimate for Facility Post-Closure Care" and delete the phrase "of this permit."
- II.M.(5),6 Delete the phrase "Attachment 10" and replace with "Cost Estimates for Facility Post-Closure Care."
- II.N.(2) Delete the phrase "Attachment 10" and replace with "Cost Estimate for Facility Post-Closure Care."
- III.F.(3) Delete the phrase "and specifications."
- IV.C.(1) Delete the phrase "as specified in Figures D.3-4 and D.3-5."
- V.A.(5) Delete the second sentence.
- VI.B.(3)(b) Delete this condition.
- VII. Delete this entire section.
- IX.E.(6) Delete the phrase "Attachment 26, Appendix C" and replace with "permittee's."



SPECIFIC COMMENTS

LIST OF ATTACHMENTS

I. Comment Regarding All Attachments.

II. Proposed Change: All references to exhibits or attachments in Attachments 1-26 of the draft permit should be deleted if such exhibits or attachments are not attached to Attachments 1-26.

III. Reason/Rationale for Proposed Change: In a number of places in Attachments 1-26 which are taken directly from CSSI's permit application, there is a reference to exhibits or attachments to CSSI's permit application which are not included in the draft permit. To the extent that the agencies insist on retaining Attachments 1-26, all such references to exhibits or attachments should be deleted to make it clear that those exhibits or attachments are not part of the permit.

\* \* \*

I. Attachment: 1. Facility Legal Description and Map of Facility Location.

II. Issue: The property description in Attachment 1 should be revised.

III. Proposed Change: Replace Attachment 1 to the permit with the revised Attachment 1, attached to these comments as Exhibit 1.

IV. Reason/Rationale for Change: CSSI has revised the property description in Attachment 1 to reflect recently acquired

land and other revisions. The revised Attachment 1 is attached to these comments as Exhibit 1.

\* \* \*

I. Attachment: 6. Hazards Prevention.

II. Issue: If the agencies refuse to delete the sections of Attachment 6 as requested in General Comment 3:

(1) certain of the descriptions must be deleted based on factors which have changed since the submittal of the permit application.

(2) other materials must be deleted as superfluous.

III. Proposed Change: If the agencies do not make the deletions in Attachment 6 requested in General Comment 1:

(1) (a) Delete the first paragraph under section E.1.1.4 on page E-4.

(b) Delete the second sentence in the second paragraph on page E-5.

(c) Delete the first and third sentences in second paragraph under Section E.1.3 on page E-6.

(2) Delete pages E-1 through E-13 from Attachment 6.

Begin the attachment with Section E.2.2, General Operation and Inspection Policies and Procedures on page E-14.

IV. Reason/Rationale for Proposed Change: (1) There are references on page E-4, E-5 and E-6 concerning the construction of concrete foundations with curbs and sumps in container storage areas. As noted in other comments, because of present economic factors, CSSI cannot build the container storage building originally proposed and plans to continue using container storage

areas S-1 and S-4. Due to these proposed changes, certain container storage areas will not be constructed as described. However, this will not result in noncompliance of any sort nor will it endanger the environment in any way.

(2) In condition II.G. the agencies indicate that Attachment 6 represents compliance with 40 CFR §§ 264.17, 264.31, 264.32, 264.33, 264.34, 264.35 and 264.37. However, general descriptions in the first 12 pages of the attachment are not necessary to demonstrate compliance with those provisions. Indeed, they contain information on such matters as power outages which is in no way relevant to the substantive provisions cited. The descriptions of facility operations contained in pages E-14 to E-20 directly address the substantive requirements of the above cited regulations. Furthermore, with respect to 40 CFR § 264.17, there are provisions in individual conditions in the permit to address the issues of ignitability, reactivity and incompatibility. [See, for example, condition VI.A.(2)(e)]. Thus, the descriptive material contained on pages E-1 through E-13 is superfluous and should be deleted.

\* \* \*

I. Attachment: 7. Contingency Plan.

II. Issue: Changes in personnel and equipment.

III. Proposed Change: The attached pages (ii, iii, 10, 16, 17, 18, 19, 27, 29, 31, 32, 33, 34, 35, 38, 39, 42, 49) should be substituted for the corresponding pages in Attachment 7. The referenced pages are attached to these comments as Exhibit 2.

IV. Reason/Rationale for Proposed Change: The changes represent minor modifications to the Contingency Plan which should be included at this time. They include personnel changes, equipment changes and clarification of the interaction between the Personnel Coordinator and the On-Site Coordinator.

\* \* \*

I. Attachment: 8. Closure and Postclosure Plans.

II. Issue: There is an inconsistency in the Closure Plan as it is reproduced and summarized in various attachments to the draft permit. The inconsistency resulted from the wrong capacity for Impoundment 16 being shown in the Part A permit application which is attached to the draft Part B permit application.

III. Proposed Change: Amend the Closure Plan, Attachment 8 to the permit at pages 1-14, 1-30 and C-3, by including the revised pages which are attached to these comments as Exhibit 3.

IV. Reason/Rationale for Proposed Change: The Closure Plan should be revised to provide consistency throughout the attachments to the permit regarding the capacity of Impoundment P-16. The pages attached as Exhibit 3 correct a recently discovered inaccuracy in the Part A submission.

\* \* \*

I. Attachment: 11. RCRA Part A permit application.

II. Issue: (1) The total capacity for existing Impoundments P-12 and P-16 in the Part A permit application is not consistent with the capacity for the same two Impoundments in the Part B permit application.

(2) CSSI's Part A permit application will be inapplicable in some respects when the final permit is issued.

III. Proposed Change: (1) The corrected Part A permit application pages (II-3, II-4, page 1 of 5, page 2 of 5) included with these comments as Exhibit 4 should be substituted for the corresponding pages in Attachment 11 to the permit.

(2) Delete the first full paragraph on page II-11a through the last paragraph before Section 1.6 on page II-12.

IV. Reason/Rationale for Proposed Change: (1) Page II-3 of the Part A permit application shows a capacity of 6,715,206 gallons for Impoundments P-12 and P-16. The approved capacity for these two Impoundments shown in the Part B permit application, Attachment 17, page D.6-4, is a capacity of 9,124,155 gallons (1,481,884 + 7,642,271). The Part A capacity reflects a 5,233,322 gallon operating limit imposed by the agencies in early 1986. In a letter dated 8 May 1986, the DEQ accepted CSSI's request to increase the operating limit to the Impoundment's full capacity (with a two-foot minimum freeboard) of 7,642,271 gallons. The Part A application was inadvertently not revised to reflect this change. The revised Part A and application page accurately describing the capacity of existing Impoundments P-12 and P-16 is attached to these comments as Exhibit 4.

This revision represents a clerical change only -- the capacities of Impoundments have not changed from their design capacity levels.

(2) The agencies must delete the first full paragraph on page II-11a through the last paragraph before Section 1.6 on

page II-12, discussing the requirements under CSSI's state permit HW-1. Those conditions can no longer apply once this permit becomes effective. To leave the discussion of HW-1 in the current Part B permit can only lead to confusion regarding CSSI's obligations to the State without serving any statutory or regulatory purpose.

\* \* \*

I. Attachment: 12. Container Storage -- Design and Operations.

II. Issue: Attachment 12 should be revised to incorporate the revised operation plan including the latest design for CSSI's container storage building.

III. Proposed Change: Replace Attachment 12 to the permit with the revised Attachment 12, attached to this comments as Exhibit 5.

IV. Reason/Rationale for Proposed Change: The Part B permit application included the design and specifications for a large, expensive Main Container Storage Unit. At the time, CSSI intended to construct that unit in the future, but had not determined the specific year. Also in the application, CSSI planned on continued operation of S-1 and S-4 for storage of containerized liquid and solid waste up to the year 2000. See Attachment 8, Table 1-11.

The draft permit, however, requires closure of S-1 and S-4 in 1988, forcing CSSI to construct the large Main Container Storage Unit or to cease receiving containerized liquid and solid waste. The draft permit coupled with changes in rules and regulatory uncertainty have drastically altered CSSI's plans.

After evaluation of the situation, CSSI has reached what it believes is the only solution -- continued storage of containerized solid waste in S-1 and S-4 past 1988 and construction of a smaller, less expensive Main Container Storage Unit in 1988/89.

Continued use of S-1 and S-4 will allow CSSI to downsize the containment building for storage of containers of hazardous liquids. This will make the building a more cost effective solution to container storage at the facility. Given the uncertainty of the rules concerning hazardous liquids, building a smaller building for storage of containerized liquid waste is all that remains practical. Precluding safe storage of containerized liquid waste at the facility by requiring the container storage building shown in the application, which CSSI can no longer build, could encourage improper disposal by generators as they see their disposal options further limited.

CSSI is filing an amendment to its application reflecting this smaller Main Container Storage Unit concurrently with these comments. This unit would be used for storage of containerized liquid waste, likely beginning in 1988 or 1989.

As discussed in CSSI's comment on condition III.F.(3), due to the regulatory changes which are occurring, CSSI's plans for container storage have changed significantly. For this reason, the current operations plan, included in the permit as a condition, will soon be obsolete. CSSI requests that the agencies adopt CSSI's revised container storage management document into the attachment currently in the permit.

The revised Attachment 12 including the new building plans is enclosed as Exhibit 5 to these comments.

\* \* \*

I. Attachment: 14. Stabilization Unit -- Design and Operations.

II. Issue: This condition incorporates design and operating information for proposed stabilization at the facility. This information does not describe stabilization of free liquids in bulk and containerized solid shipments.

III. Proposed Change: Revise Section D.4 in Attachment 14 to include the language in Exhibit <sup>1</sup> 6 as a parenthetical after the second sentence in the first paragraph.

IV. Reason/Rationale for Proposed Change: CSSI occasionally receives bulk and containerized solid loads which contain unmanifested free-standing liquids when they arrive at the facility. There could be many reasons for this including consolidation of the contents of a drum or a bulk load during transportation. CSSI does not believe it is appropriate in all cases simply to reject the load, particularly in the case of bulk solid loads. Thus, under exceptional circumstances, CSSI stabilizes the material in situ. This current practice is not reflected in the stabilization section, Attachment 14. CSSI incorporates the Reason/Rationale from its comments on conditions IV.D.(5)(a) and IV.D.(5)(b), infra.

\* \* \*

I. Attachment: 17. Surface Impoundment Units--Design and Operation.



II. Issue: Footnote (c) erroneously lists an operating limit of 5,233,322 gallons for P-16.

III. Proposed Change: Substitute a revised page (D.6-4) in Attachment 17, attached to these comments as Exhibit <sup>6</sup>7.

IV. Reason/Rationale for Proposed Change: Footnote (c) does not reflect a May 8, 1986 letter from the DEQ accepting CSSI's request to increase the operating limit to the full capacity of Impoundment P-16.

\* \* \*

I. Attachment: 18. Impoundment Drawings.

II. Issue: Attachment 18 does not include the most recent engineering drawings submitted by CSSI for Impoundments P-A, P-B and P-C. Also, it is not clear that two revisions to its Part B application are part of the record.

III. Proposed Change: Revise Attachment 18 to include the most recently revised set of engineering drawings that are available for proposed Impoundments P-A, P-B and P-C. CSSI provided this revision to the agencies in August, 1987.

IV. Reason/Rationale for Proposed Change: CSSI redrafted the set of preliminary engineering drawings for Impoundments P-A, P-B and P-C in June 1987 to correct inaccuracies in the initial drawings. Copies of the revised drawings were submitted to the agencies shortly thereafter for review and approval. A follow-up transmittal of the drawings for specific formal inclusion in the Part B permit application was provided by CSSI as Revision 18, dated 7 August 1987. The changes do not change the design for the

impoundments; the revised drawings are merely more accurate than those currently in the draft permit.

Because Revision 18 was not incorporated in Attachment 18 to the draft permit, CSSI is concerned that CSSI's application does not reflect additional material submitted at that time. Thus, CSSI is including both Revision 17 and 18 to its Part B permit application as Exhibit 8 of these comments and requesting that the agencies reflect these revisions in the permit. It is clear that all earlier revisions to the application are part of the record.

\* \* \*

I. Attachment: 22. Response Action Plan, Exhibit 21-A: Response Action Plan for L-13, Cells 1 and 2.

II. Issue: Attachment 22, Exhibit 21A should be revised to clarify the response requirements.

III. Proposed Change: Page 17 - Delete current discussion under Section 6.1 and replace with the following: "Based on the EPA's proposed leak detection rules, no action is required with regard to flow rates less than 20 gpad."

Page 14 - Under "Source" and "Estimated Quantity" revise the gallons per acre per day numbers to reflect the "Source" and "Estimated Quantity" chart included below:

<u>Source</u>	Estimated Quantity (gpad)	
	<u>Cell 1</u>	<u>Cell 2</u>
Construction Water	11	21
Leakage through the primary liner	15	15
ALR	26	36

Page 16 - Revise Table 1 "Cell-Specific ALRs and Maximum Secondary Sump Capacity" to reflect revised ALRs:

Table 1  
CELL-SPECIFIC ALRs AND  
MAXIMUM SECONDARY SUMP CAPACITY

Area	Area Acres	ALR (gallons per day)	ALR (gallons per week)	Maximum Sump Capacity
1	1.93	49	343	1,500
2	3.75	137	959	1,500

Page 18 - Revise the first sentence in paragraph 6 to read: "If the flow continues in excess of the ALR, after step 4 has been completed, investigate alternative sources of liquid."

Page 19 - In paragraph 10, add the phrase "or other appropriate action has been taken," after the word "repaired" and before the word "prepare."

Page 21 - In paragraph 15, add the phrase "or other appropriate action has been taken," after the word "repaired" and before the word "prepare."

IV. Reason/Rationale for Proposed Change: Changes to the ALR and construction water quantities are included to reflect actual consolidation testing that has been performed to predict more accurately the amount of construction water that will be seen in the leak detection system. CSSI is requesting that ALRs throughout the RAP be changed to reflect these numbers. Consolidation test data is provided in Exhibit 9 which supports the Response Action Plan for L-13, Cells 3, 4, 5 and 6. CSSI also incorporates the Reason/Rationale from its comment on Attachment 22, Exhibit 21-C [new], infra. The changes on pages 18, 19 and 21 are necessary to clarify the response actions

required to be taken under the three response levels as well as prior to the time the ALR is triggered.

\* \* \*

I. Attachment: 22, Exhibit 21-C[new]. Response Action Plan for L-13, Cells 3, 4, 5 and 6.

II. Issue: Attachment 22 should be revised to include a Response Action Plan for Landfill L-13, Cells 3, 4, 5 and 6.

III. Proposed Change: Add a new Exhibit 21C to Attachment 22 to include the Response Action Plan for Landfill L-13, Cells 3, 4, 5 and 6. The new portion of Attachment 22 is attached as Exhibit 9 to these comments.

IV. Reason/Rationale for Proposed Change: CSSI has prepared a Response Action Plan (RAP) for Landfill L-13, Cells 3, 4, 5 and 6, and is requesting that the agencies include this RAP in the permit in order to avoid a needless permit modification in the future. This RAP is identical to the RAP for Cells 1 and 2 of Landfill L-13, including CSSI's comments on the agencies' added conditions in the permit. Thus, little additional review and analysis will be needed for the RAP for these cells. The issues for the RAP for Cells 3, 4, 5, and 6 are the same as the issues for the RAP for Cells 1 and 2 already included in the permit.

CSSI plans to start disposing waste in Cells 4 and 6 possibly as early as 1988. In order to meet this schedule, a RAP for these cells should be reviewed and approved by the agencies as part of permit issuance. If the RAP for these cells were not included in the permit, a major modification would have to be obtained. The time consumed in obtaining a major modification

would limit the availability of waste disposal capacity for the Pacific Northwest.

The RAP for L-13, Cells 3, 4, 5, and 6 is based on the RAP in Attachment 22 for Cells 1 and 2 as modified based on consolidation testing discussed infra, in CSSI's comment on condition VI.B.(7)(f)[new]. This testing was designed to predict more accurately the amount of water from the primary soil/bentonite liner due to loads resulting from waste placement. Exhibit 10 provides the calculations on which the RAP is based.

CSSI is proposing this RAP solely to expedite issuance of a permit covering Cells 3, 4, 5 and 6. Nothing in this proposal is intended to prejudice recent comments made by Chemical Waste Management, Inc. (CWM) on EPA's proposed Leak Detection rules nor CWM's right to challenge, if necessary, any final Leak Detection rules adopted by EPA. CWM in its comments on the proposed rules has noted that there is insufficient real world data to establish an action leakage rate (ALR) of 20 gallons per acre day (gpad). EPA noted in the preamble to its proposed rules that it was interested in comments on the proposed ALR range due to limited available data. See 52 Fed. Reg. at 20235. There is no empirical data available to support the Agency's proposed ALR range of 5 to 20 gpad. First, Minimum Technology based units have been in existence for no more than two years. As a result, there has not been sufficient operating experience to provide reliable data on whether liquid in the leak detection system (LDS) results

from a leak in the top liner or from other sources<sup>1</sup> and may trigger the ALR.

In developing its proposed ALR range, EPA used a theoretical model based on a composite top liner (flexible membrane liner and clay) and assumed a LDS technology which was only then being proposed in those regulations. This hypothetical landfill had no real world counterpart. The only data in the record was from six landfills which were one to two years old and did not resemble the hypothetical landfill used in EPA's calculations. The most significant missing element was that no landfill used the LDS required by the proposed regulations.

An evaluation of information included in the Background Document for the proposed rules indicates that even if the six landfills used met all of the design requirements of the proposed regulations, the empirical data from these landfills does not support an ALR in the range of 5-20 gpad. Of the six landfills, all Minimum Technology based, one exceeds the upper limit of the proposed ALR range by a substantial amount. This landfill has a typical average of 100 gpad (Background Document Table 2.5-2 at 2.5-13). EPA admits in its discussion of this landfill that:

"[t]o understand the source of all the liquids collected in the LDCRS sump of Unit 2 will require a very careful review of the design, construction and operation of the unit. . . .

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<sup>1</sup>Such other sources include construction water, rain water, and groundwater infiltration. Additionally, EPA admits that it continues to study the effect of liner permeability upon the levels seen in the LDS. It admits that at some point it may allow the owner/operator of a land disposal unit to take that into account in determining whether the ALR has been exceeded. Background Document at 2.9-6. However, owners/operators are forced to react as though the liquid is from a leak.

[I]t is only through a very careful review of all of the factors affecting each unit that the leakage quantities collected can be fully understood." (Background Document at 2.5-8.)

Moreover, the maximum leakage rate at existing landfills exceeds the proposed 50 gpad maximum. In the first case, the 50 gpad is exceeded by an order of magnitude (Background Document Table 2.5-1 at 2.5-12). In the second the landfill has a maximum of 168 gpad (Background Document Table 2.5-2 at 2.5-13). This data suggests that either (1) the Agency's proposed numbers are unrealistically low in that a properly constructed landfill would, under normal circumstances, experience numbers higher than 20 gpad or (2) the imposition of an ALR at this time is premature. In either case, there can be no dispute that EPA's real world data contradicts its calculated values.

The absence of data means that the Agency cannot currently verify whether a real world landfill could meet an ALR in the range of 20 gpad. EPA admits in the Background Document that it lacks hard data regarding the levels of liquids to be expected in landfills. See, for example, Background Document at 2.5-1 to 2.5-7 and 2.5-9 to 2.5-10. While the Agency suggests the amount of liquid collected in facilities constructed to current standards will be low, it cannot cite documentation for this position.

Although EPA admits throughout the Background Document that numerous factors will affect the liquid level in the sump, it arrived at the ALR strictly on the basis of a calculation of how much liquid will be seen in the LDS if the top liner has no more than a small defect. As to the other factors, the Agency leaves

it to the owner/operator to demonstrate, once the ALR has been exceeded, that those factors, such as the appearance of construction water, are involved. See Background Document at 2.9.3.2 at 2.9-4.

In conclusion, the Agency's proposed leakage limits in the range of 20 gpad appear unrealistically low. The very limited data base discussed in the Background Document is simply not statistically significant. CWM has recommended that if an ALR is to be proposed at this time, it should, at the very least, reflect the empirical data in the Background Document. Therefore, CWM has recommended an ALR trigger level of 100 gpad. However, to expedite the issuance of the permit and to avoid a needless major permit modification, CSSI is proposing a RAP for L-13, Cells 3, 4, 5, and 6 reflective of its own consolidation testing. This RAP is submitted as a new exhibit 21C to Attachment 22 and is included as Exhibit 9 to these comments.

\* \* \*

I. Attachment: 23. Landfills -- Design and Operation.

II. Issue: Each load placed in the landfill shall be assigned an area in the landfill according to various classifications as described in the Waste Analysis Plan (WAP).

III. Proposed Change: Delete the second paragraph on page D.7-32 of Attachment 23.

IV. Reason/Rationale for Proposed Change: Waste evaluation procedures are described in the WAP and inclusion of this information in Section D of Attachment 23 dealing with landfill



design and operation is redundant, unnecessary and may conflict with other provisions in the WAP.

\* \* \*

I. Attachment: 25. Surface Water Management Plan.

II. Issue: The current design for surface water collection basin B-2 is for an unlined structure.

III. Proposed Change: Revise Attachment 25 to reflect that CSSI plans to line basin B-2 with a single layer of HDPE liner material.

IV. Reason/Rationale for Proposed Change: Neither 40 CFR Part 264 nor Part 271 provides guidance on specific rules that would restrict or dictate changes to the surface water management plan. The lined basin B-2 will allow CSSI to evaporate surface water collected at the facility rather than create a potential for a new groundwater recharge source. Such a new source could upset the mechanisms which influence groundwater in the area and thus the groundwater monitoring program at the facility. The basin was designed to accommodate large storms without provision for losses through the bottom and sides of the basin so there will still be sufficient capacity in the basin after it is lined.

## DEFINITIONS

I. Definition: Definition g, "Regional Administrator" or "Director."

II. Issue: The phrase "Regional Administrator" as used in 40 CFR Part 264 in certain cases cannot mean the Manager, Hazardous Waste Program and in other cases must mean only the Manager, Hazardous Waste Program.

III. Proposed Change: Revise definition g to read:

"In cases where the permittee is required to comply with a specific provision of 40 CFR Part 264 and that provision refers to 'Regional Administrator' or 'Director', the term 'Regional Administrator' or 'Director' shall be interpreted to mean the Director, Hazardous Waste Division, EPA Region 10 unless the State of Oregon has received final authorization for the applicable provision, in which case the term "Regional Administrator" or "Director" shall be interpreted to mean, the Manager, Hazardous Waste Program."

IV. Reason/Rationale for Proposed Change: The State of Oregon's authorized program includes all RCRA rules promulgated as of April 30, 1985, but none after that date. EPA has amended 40 CFR Part 264 several times since April 30, 1985. To reflect the fact that the State of Oregon does not have final authorization for all aspects of 40 CFR Part 264, Definition g must be revised as proposed.

I. STANDARD CONDITIONS

I.B. Personal Liability.

I. Condition: I.B.

II. Issue: This condition arbitrarily requires CSSI to defend the State of Oregon and the Agency against any claim brought against either of them arising out of permit activities and also pay any judgment if the State or the Agency is found liable.

III. Proposed Change: Delete this condition.

In the alternative, if the agencies can demonstrate the statutory authority to require such an indemnity and hold harmless condition, then add the following sentence to the end of the condition:

"The Permittee shall not, however, hold harmless and indemnify the United States, the Agency, the State of Oregon, the Department, and officers, employees, and agents of the United States or the State of Oregon for any such claim, suit or action against any of them arising from their own negligence."

IV. Reason/Rationale for Proposed Change: This condition makes CSSI responsible for any negligence of the State of Oregon or the Agency. E.g., Travelers Indemnity Co. v. American Insurance Co., 278 Or 193, 563 P2d 684 (1977) (holding that a similar provision in a contract between a city and party indemnified the city against liability for its own negligence).

This condition requires CSSI to become an insurer of the State and Agency's actions. CSSI, however, has absolutely no control over those actions. For example, if a State employee acts negligently during an emergency condition at the facility and

causes damage, CSSI will be liable for the damages caused even though CSSI is completely without fault. CSSI has no way to limit or to control its liability exposure for the State or Agency's fault. Also because the phrase "State of Oregon" may include other public bodies such as counties, cities, etc., the liability exposure is immense.

By deleting the condition, the liabilities of CSSI, the State and the Agency would be governed as all other liabilities are, by traditional common law and statutory remedies. In addition, the State and Agency's liabilities are already limited by the Oregon Tort Claims Act and the Federal Tort Claims Act. Under both acts there can be no liability for any claim that is based on the performance of, or the failure to perform, a discretionary function. 28 USC § 2680(a); ORS 30.265(3)(c). Also, the State's liability under ORS 30.270(1) of the Oregon Tort Claims Act is limited to at most, \$300,000. Under ORS 30.287, individual employees and officers of the state will not be held personally liable for damages caused by an action in the performance of their duties.

Finally, Oregon law provides a common law duty to indemnify when the degree or kind of fault is disproportionate between the two parties involved. E.g., Fulton Insurance Co. v. White Motor Corp., 261 Or 206, 493 P2d 138 (1972) (explaining common law indemnity and holding that a claim for indemnity had been established.) This right to indemnity provides sufficient indemnity protection to the State and the Agency.

The Fact Sheet cites no statutory basis for this condition. There is none. In fact the 1985 Oregon Legislature in its enactment of Senate Bill 138 dealing with permitting of hazardous waste disposal facilities (1985 Or Laws Chap. 670), specifically considered requiring transporters of hazardous wastes to indemnify the State for claims arising out of transportation activities. After significant debate during which transporters objected to becoming insurers for State negligence, the legislature decided that statutory authority for such an indemnity requirement should not be provided.

\* \* \*

I.C. Personal and Property Rights.

I. Condition: I.C.

II. Issue: This condition fails to recognize that the permit authorizes numerous activities at the facility.

III. Proposed Change: Revise this condition to read:

"This permit does not convey any property rights of any sort or any exclusive privilege, nor authorize any injury to private property outside the facility or any invasion of personal rights, and does not authorize any violation of federal, state, or local laws or regulations."

IV. Reason/Rational for Proposed Change: Under certain circumstances, treatment, storage or disposal of hazardous wastes could be considered by some as an injury to private property. Because this permit will authorize treatment, storage and disposal of hazardous waste at the facility, this condition should be revised as proposed.

\* \* \*

I.D. Permit Actions.

I. Condition: I.D.(1)

II. Issue: The permit cannot legally be modified, revoked and reissued, or terminated for cause by the Department under the state authorized program regarding conditions that are state requirements only and not part of the state authorized program.

III. Proposed Change: The first sentence of this condition should be revised to read:

"This permit may be modified, revoked and reissued, or terminated for cause by the Department as specified in 40 CFR §§270.41, 270.42, 240.43 and OAR Divisions 105 and 106 for provisions of this permit that are part of the state authorized program."

IV. Reason/Rationale for Proposed Change: The provisions dealing with modification, revocation and reissuance, and termination are provisions under the state authorized program. Therefore, this condition must be revised to reflect the fact that modifications, revocations and reissuances, and terminations under the cited regulations can occur only for conditions that are part of the state authorized program. For example, condition I.BB., because it is based on a state rule adopted in May, 1986 and is not a part of the State authorized program, cannot be the basis for a modification, revocation and reissuance, or termination under the State authorized program.

\* \* \*

I.E. Severability.

I. Condition: I.E.(1)

II. Issue: This condition erroneously fails to reflect the

requirements of the RCRA rules regarding severability when a permit is appealed.

III. Proposed Change: Delete the first sentence in this condition and replace it with the following four sentences:

"If a request for review of the permit is granted, the effect of the contested permit conditions shall be stayed and shall not be subject to judicial review pending final agency action. Uncontested conditions which are not severable from those contested shall be stayed together with the contested conditions. Stayed provisions of the permit shall be identified by the Regional Administrator. All other provisions of the permit for the existing facility shall remain fully effective and enforceable."

IV. Reason/Rationale for the Proposed Change: The first sentence of this condition contradicts 40 CFR § 124.16(a)(2) which recognizes that certain conditions may not be severable from other conditions. The three sentences proposed for addition are simply recitations of what 40 CFR § 124.16(a)(1) and (2) require regarding which conditions are stayed and which are enforceable when a request for review of a permit is granted.

\* \* \*

I. Condition: I.E.(2)

II. Issue: This condition does not contain the exception provided by the RCRA rules to compliance with interim status conditions when a permit condition has been stayed.

III. Proposed Change: Revise this condition to read:

"In the event that a condition of this permit is stayed for any reason, the Permittee shall continue to comply with the related applicable and relevant interim status standards in 40 CFR Part 265 until final resolution of the stayed condition unless compliance with the related applicable and relevant interim status

standards would be technologically incompatible with compliance with other conditions of this permit which have not been stayed."

IV. Reason/Rationale for Proposed Change: 40 CFR

§ 124.16(c)(2) allows an exception to the requirement that CSSI comply with the applicable interim status standard or existing permit condition when a condition of the permit has been stayed. The exception allows noncompliance with the applicable interim status standard or existing permit condition whenever to do so would be technologically incompatible with compliance with other permit conditions that have not been stayed. The exception makes sense and should be included in the permit by adopting the proposed change.

\* \* \*

I.F. Duty to Comply.

I. Condition: I.F.(1)

II. Issue: This condition erroneously suggests that any permit noncompliance (except as authorized by an emergency permit) is automatically a violation of both Oregon law and RCRA.

III. Proposed Change: The second sentence in this condition should be revised to read:

"Any permit noncompliance, except under the terms of an emergency permit, constitutes a violation of the applicable provision of Oregon state law and/or RCRA, as amended by HSWA, and is grounds for enforcement action, permit termination, modification or revocation and reissuance of the permit, or denial of a permit renewal application."

IV. Reason/Rationale for Proposed Change: Certain conditions are state only requirements or EPA only HSWA



requirements. For such conditions, only the relevant state or federal law would apply, not both.

\* \* \*

I. Condition: I.F.(2)

II. Issue: This condition provides that compliance with the permit does not constitute a defense to certain statutory actions but fails to state that compliance with the permit is a defense to any action alleging failure to meet the applicable standards that must be met before a permit can be issued.

III. Proposed Change: Add the following sentence to the end of this condition:

"However, compliance with the terms of this permit does constitute a defense to any action alleging failure to comply with the applicable standards for owners and operators of hazardous waste treatment, storage and disposal facilities in 40 CFR Part 264, Subtitle C of RCRA, Division 104 of OAR Chapter 340, and ORS Chapter 466."

IV. Reason/Rationale for Proposed Change: This condition states that compliance with the permit is not a defense to numerous types of actions that could be brought against CSSI under RCRA, CERCLA and state law. Among these actions is a compliance order under Section 3008 of RCRA (42 USC § 6298) for failure to comply with 40 CFR Part 264.

However, as the agencies state in the Fact Sheet (p. 12 of 91) compliance with the terms of the permit constitutes compliance with the applicable provisions of 40 CFR Part 264. Also, 40 CFR § 270.4(a) provides that compliance with the terms of the permit constitutes compliance with Subtitle C of RCRA. Finally, the permit recognizes that compliance with its terms

constitutes compliance with the applicable provisions of the RCRA rules. For example, condition III.C. requires certain aisle space in storage units and provides: "Maintenance of the specified aisle space shall constitute compliance with 40 CFR § 264.35."

The proposed change should be adopted to reflect that compliance with the permit is a defense to any action alleging failure to meet the applicable standards in the federal and state law for operation of the facility.

\* \* \*

I.G. Duty to Reapply.

I. Condition: I.G.

II. Issue: This condition does not accurately reflect the requirements of the RCRA rules as to when a duty to reapply arises.

III. Proposed Change: Revise this condition to read:

"After the expiration date of this permit, if the Permittee desires to continue an activity regulated by this permit, or if the Permittee is required to continue post-closure care, the Permittee must reapply for and obtain a new permit, in accordance with 40 CFR §270.10(h)."

IV. Reason/Rationale for Proposed Change: This condition omits a critical phrase from the requirements of 40 CFR § 270.30(b), "after the expiration date of this permit." This phrase fixes the time when CSSI must reapply for a new permit. Without the phrase, the condition might erroneously be read to require application for and obtaining of a new permit before the previous permit had expired.

\* \* \*

I.H. Continuation of Expiring Permit.

I. Condition: I.H.

II. Issue: This condition erroneously requires review of the entire facility five years after the effective date of the permit.

III. Proposed Change: The phrases "remain in effect beyond the permit's expiration date" and "have not made a final permit determination, through their respective authorities as set forth in OAR 340-105-051 and 40 CFR § 270.51" should be deleted from the first sentence in this condition and the first and second sentences revised, so the condition reads:

"This permit and all conditions herein shall continue in force until the effective date of a new permit if the Permittee has submitted a timely, complete application (under 40 CFR §270 Subpart B and OAR Chapter 340 Division 105) and, through no fault of the Permittee, the Director or the Administrator does not issue a new permit under §124.15 on or before the expiration date of the previous permit. In accordance with 40 CFR § 270.50, this permit as it applies to land disposal shall be reviewed by the Agency five years after the effective date and modified, as necessary, in accordance with 40 CFR § 270.41."

IV. Reason/Rationale for Proposed Change: The first sentence of the condition in the draft permit does not follow the federal rule [40 CFR § 270.51(a)] or the state rule (OAR 340-105-051) and deprives CSSI of the protections provided by these rules. The proposed change to the first sentence of the condition simply tracks the requirements of the federal and state rules.

The second sentence in this condition should be deleted for state purposes because 40 CFR § 270.50(d) was not a part of the RCRA rules promulgated as of April 30, 1985 for which the

State of Oregon has final authorization. The state authorized program thus does not contain a five-year review authority. In addition, if the provision is applicable as a self-implementing HSWA provision, the condition goes too far because 40 CFR § 270.50(d) specifically provides only for the review by the Agency of each permit for a land disposal facility after five years. The rule does not provide authority for review of a permit for a treatment or storage facility after five years.

\* \* \*

I.L. Duty to Provide Information.

I. Condition: I.L.

II. Issue: This condition arbitrarily deletes the provision in the RCRA rules that CSSI is to furnish information that the agencies may request within a reasonable time and also fails to provide who pays for copying of records.

III. Proposed Change: The phrase "upon request" and the word "require" should be deleted from this condition and the condition revised to read:

"The Permittee shall furnish to the Director and the Administrator, within a reasonable time, any relevant information which the Director or the Administrator may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. The permittee shall also furnish to the Director and Administrator, upon request and at their expense, copies of records required to be kept by this permit."

IV. Reason/Rationale for Proposed Change: 40 CFR § 270.30(h) provides the authority for this condition. That rule allows CSSI a reasonable amount of time to submit the information

requested. By deleting the provision for a reasonable amount of time, the permit indicates that CSSI must furnish information immediately no matter what the cost or situation. The rule also provides that the information is information the agencies may request not information the agencies may require. The permit should follow the rule being recited.

The proposed change also includes a provision that copying of records requested by the Director and the Administrator will be at their expense. The condition in the draft permit does not specify who pays for copying.

\* \* \*

I.M. Inspection and Entry.

I. Condition: I.M.

II. Issue: This condition allows the agencies the option of not presenting to CSSI all documents required by law prior to entry and inspection.

III. Proposed Change: Delete the words "identification" and "or" from this condition and revise it to read:

"The Permittee shall allow the Director or the Administrator, or their authorized representative, upon the presentation of credentials and other documentation as may be required by law, to:

IV. Reason/Rationale for Proposed Change: The rule providing authority for this condition, 40 CFR § 270.30(i), requires presentation to CSSI of "credentials and other documents" required by law. The condition, however, requires presentation to CSSI of "identification, credentials or other documents" required by law. The condition thus allows presentation of only an

identification and nothing else although the law might require more. The condition should be revised as proposed to reflect the requirements of 40 CFR § 270.30(i).

\* \* \*

I. Conditions: I.M.(1) and I.M.(2)

II. Issue: The conditions do not properly follow the RCRA rules and allow entry and inspection only where records must be kept but instead allow entry and inspection where records are kept.

III. Proposed Change: Delete the word "are" from each condition and revise the two conditions to read:

"I.M.(1) Enter at reasonable times upon the Permittee's premises where hazardous or solid waste management units or activities are located or conducted, or where records must be kept under the conditions of this permit;

"I.M.(2) Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;"

IV. Reason/Rationale for Proposed Change: 40 CFR § 270.30(i) authorizes the agencies to enter where records must be kept and to inspect records that must be kept. The permit conditions, however, are much broader allowing entry where records are kept and inspection of records that are kept. There is no authority or need for the agencies to have this broader right of entry and inspection. These conditions should be revised to follow 40 CFR § 270.30(i).

\* \* \*

I. Condition: I.M.(4)

II. Issue: In contravention of previous agreements with both agencies, this condition allows the agencies to sample or to monitor at the facility.

III. Proposed Change: Revise the condition to read:

"Require the Permittee to sample or monitor, at reasonable times, for the purposes of assuring permit compliance or as otherwise authorized by RCRA or state law, any substances or parameters at any location."

IV. Reason/Rationale for Proposed Change: CSSI's policy is to do all sampling at the facility. In the past, the agencies have agreed to allow CSSI to take the samples when needed. CSSI requests that this practice continue.

Amendments to ORS Chapter 466 recognize that sampling will be performed by CSSI at the Department's request. 1987 Oregon Laws Chapter 540, § 14 provides in part:

"For purposes of enforcing the provisions of ORS 466.005 to 466.385 any officer, employe or representative of the department may:

"(a) Enter at reasonable times any establishment or place where hazardous waste is or has been generated, stored, treated, disposed of or transported from; and

"(b) Inspect and obtain samples from any person of any such waste and samples of any containers or labeling for such waste."  
(Emphasis added.)

\* \* \*

#### I.N. Monitoring and Records.

I. Condition: I.N.(3)(f)

II. Issue: This condition erroneously requires that the records of monitoring information that must be retained include the QA/QC summary.

III. Proposed Change: Delete the phrase "including the QA/QC summary" from the condition so it reads:

"The results of such analyses."

IV. Reason/Rationale for Proposed Change: This condition follows the language in 40 CFR § 270.30(j)(3) for the monitoring and records requirements applicable to all permits except that the condition adds a requirement that CSSI retain the QA/QC summary with the analyses. Carefully detailed QA/QC documentation is made. However, there is no basis in the regulations nor is there any environmental purpose to be served by including the requirement that CSSI retain the QA/QC summary.

\* \* \*

I.O. Reporting Planned Changes.

I. Condition: I.O.

II. Issue: This condition arbitrarily requires notice of planned changes to the facility prior to the changes rather than as soon as possible as required by the RCRA rules.

III. Proposed Change: Delete the word "prior" from the condition so it reads:

"The Permittee shall give notice to the Director and the Administrator, as soon as possible, of any planned physical alterations or additions to the permitted facility."

IV. Reason/Rationale for Proposed Change: 40 CFR § 270(1)(1) does not require prior notice but notice as soon as possible. The condition should be revised to reflect the rule.

\* \* \*

I.P. Certification of Construction or Modification.

I. Condition: I.P.(2)(b)



II. Issue: This condition provides that CSSI may not commence treatment, storage or disposal of hazardous waste in a new or modified unit until, among other things, the agencies have either waived prior inspection or have not notified CSSI within 15 days of their intent to inspect. Measurement of the 15 days does not follow the RCRA rule and there is no requirement that the agencies perform the actual inspection within any period of time.

III. Proposed Change: Delete the phrase "have not," the word "receipt" and the phrase "notified the Permittee" from this condition. Revise the condition and add a sentence after the first sentence so the condition reads:

"The Director and the Administrator have waived, in writing, the inspection or within 15 calendar days of the date of submission of the letter in permit condition I.P.(1) the Permittee has not received notice of their intent to inspect. If the noticed inspection is not performed within 15 days after the Permittee's receipt of a notification from the Director or the Administrator of an intent to inspect, the Director and Administrator will be deemed to have waived the inspection despite the notice of intent to inspect."

IV. Reason/Rationale for the Proposed Change: This condition must follow the requirements of 40 CFR § 270.30(1)(2) for computing the 15 days within which the agencies must be given notice of intent to inspect or waive their right to inspect. Also, in order to avoid prolonged delays in commencing operation of new or modified units, the proposed new sentence should be added so that the inspection will be accomplished within a reasonable time.

\* \* \*

I.Q. Anticipated Noncompliance.

I. Condition: I.Q.

II. Issue: This condition erroneously requires CSSI to give written notice to the Director and Administrator at least 30 days prior to planned changes to the facility that might result in noncompliance with the permit, or if that is not possible, then within 24 hours of the time it becomes aware of the anticipated noncompliance.

III. Proposed Change: Delete the phrases "at least 30 calendar days" and "in writing" and delete the second sentence so the condition reads:

"The Permittee shall give advance notice to the Director and the Administrator of any planned changes in the permitted facility or activity that might result in noncompliance with permit requirements."

IV. Reason/Rationale for Proposed Change: The basis for this condition, 40 CFR § 270.30(1)(2), provides only that notice of anticipated noncompliance be given to the agencies in advance. The condition has added 30-day and 24-hour time limits and a requirement of written notice. These added requirements are without sound environmental basis. The immediate notice provided by verbal notice should be preferred in certain situations to the longer time required for written notice. The condition should be revised as proposed so it retains the flexibility allowed by 40 CFR § 270.30(1)(2).

\* \* \*

I.R. Transfer of Permit.

I. Condition: I.R.

II. Issue: This condition illegally prevents transfer of the permit.

III. Proposed Change: Delete this condition.

IV. Reason/Rationale for Proposed Change: This condition derives solely from OAR 340-105-040(2). Contrary to the conclusion in the Fact Sheet (p. 15 of 91) that this condition is more stringent than the federal rules, this condition is broader in scope than the federal rules. As a result, it is not part of the state authorized program.

RCRA does preserve authority for Oregon to adopt rules that are stricter than the requirements of the federal RCRA rules:

"Nothing in this chapter shall be construed to prohibit any State or political subdivision thereof from imposing any requirements, including those for site selection, which are more stringent than those imposed by such regulations." 42 USC §6929. (Emphasis added.)

The RCRA rules agree: "States are not precluded from omitting or modifying any provision to impose more stringent requirements."

40 CFR § 271.14. (Emphasis added.)

The RCRA rules in 40 CFR § 271.14 require Oregon to have legal authority to implement specific RCRA rules including 40 CFR §§ 270.30, 270.40 and 270.42 providing for transfers of permits.

These provisions specifically allow and recognize transfer of a permit when ownership of the permitted facility transfers. These rules provide that transfer of a permit may occur through modification of the permit, revocation and reissuance of the permit, or a minor modification of the permit. Each of these provisions has procedural safeguards that allow the permit agency

to assess the ability of the party to whom the permit is being transferred to operate properly under the permit.

The sole authority for this condition, OAR 340-105-040(2), however, is not a more stringent requirement than these provisions or the federal rules. It is simply a statement that a transfer does not exist. The State rule takes a condition that the RCRA rules require to be in a state program and delete it. To delete a condition is not to make it stricter.

In 40 CFR § 270.43 the RCRA rules allow the permitting agency to terminate a permit for certain specific reasons and after following certain procedures. The Oregon rules do not impose stricter requirements on termination of a permit by adding an additional reason to 40 CFR § 270.43. Nevertheless, OAR 340-105-040(2) allows the State to terminate the permit for a reason not listed in the reasons for termination of a permit -- transfer of ownership and without following any of the required procedural safeguards.

The State rule is broader in scope than the federal rules and is therefore not enforceable as part of the state program. Further, even if viewed as a state only condition, there is no statutory authority for the condition and it is unauthorized.

\* \* \*

I.U. Twenty-Four Hour Reporting.

I. Conditions: I.U.(1) and I.U.(2)

II. Issue: These conditions go beyond the requirements of

the RCRA rules and create uncertainty about what must be included with required reports and descriptions.

III. Proposed Change: Revise the two conditions by deleting the phrase "but not be limited to" so the conditions read:

"I.U.(1) The Permittee shall verbally report to the Director and the administrator any noncompliance with this permit that might endanger health or the environment, within 24 hours from the time the Permittee becomes aware of the noncompliance. The report shall include:"

"I.U.(2) The description of the occurrence and its cause shall include:"

IV. Reason/Rationale for Proposed Change: The rule from which these two conditions are taken, 40 CFR § 270.30(1)(6), specifies the information that must be included with a report about noncompliance and what the description of the occurrence of noncompliance must include. The condition changes the requirements of the rule by including the phrase "but not be limited to" and creates uncertainty. If there is other information that must be included in a report or a description, it should be listed, especially because the report must be made within 24 hours of the noncompliance.

\* \* \*

I. Condition: I.U.(1)(b)

II. Issue: This condition erroneously expands the information that must be contained in a report about noncompliance.

III. Proposed Change: Revise this condition to read:

"Any information of a release or discharge of hazardous waste or of a fire or explosion from

the hazardous waste management facility, that might threaten human health or the environment outside the facility."

IV. Reason/Rationale for Proposed Change: This condition follows 40 CFR § 270.30(1)(6)(i)(B) except that the phrase "outside the facility" is deleted. This omission burdens CSSI who is already subject to other reporting requirements regarding releases as they may affect human health or the environment within the facility, i.e., employees. The deletion of the phrase "outside the facility" required by the rule clearly oversteps the agencies' authorities.

\* \* \*

I. Condition: I.U.(2)(d)

II. Issue: This condition imposes erroneous requirements for the description that must be provided in a report about noncompliance.

III. Proposed Change: Delete "shipping" and "hazard class, nature," from this condition so it reads:

"Name and quantity of material(s) involved;"

IV. Reason/Rationale for Proposed Change: This condition imposes additional requirements for the description that must be included with a report about noncompliance. These additional requirements are not required by the applicable rule, 40 CFR § 270.30(1)(6)(ii)(D). The requirement for shipping name, hazard class and nature of material may be impossible to determine within the 24 hours required for submission of the report. The RCRA rule recognizes this practical limitation. This condition should be revised to follow the rule.

\* \* \*

I. Condition: I.U.(3)

II. Issue: This condition does not follow the applicable RCRA rule which allows the agencies to waive the five-day written notice requirement and require a written report within fifteen days. It also adds a requirement for written notice regarding corrective measures which is not required by the RCRA rules.

III. Proposed Change: The second sentence of this condition should be revised to delete the phrase "corrective measures being undertaken to mitigate the situation;" and a sentence should be added to the end of the condition so the second and third sentences of this condition read:

"The written submission shall contain a description of the noncompliance and its cause; the period of noncompliance including exact dates and times; the anticipated time noncompliance is expected to continue if the noncompliance has not been corrected; and steps taken to reduce, eliminate, and prevent reoccurrence of the noncompliance. The Director and the Administrator may waive the five day written notice requirement in favor of a written report within fifteen days."

IV. Reason/Rationale for Proposed Change: The basis for this condition, 40 CFR § 270.30(1)(6)(iii), does not require that a written submission contain a description of corrective measures. The rule recognizes that corrective measures will not be necessary in all cases. The rule also authorizes the agencies to waive the five day written submission requirement and instead to require a written report within fifteen days. This permit condition should be revised to follow the rule and to retain the flexibility envisioned by the rule.

\* \* \*

I.V. Other Noncompliance.

I. Condition: I.V.

II. Issue: This condition erroneously fails to define "instances of noncompliance."

III. Proposed Change: Add a new sentence after the second sentence of the condition so the condition reads:

"The Permittee shall report to the Director and the Administrator all other instances of noncompliance not reported under Conditions I.S., I.T., and I.U. of this permit at the time monitoring reports are submitted. The reports shall contain the applicable information listed in condition I.U. of this permit. Any noncompliance issues and concerns that are noted by an Environmental Compliance Officer in the course of environmental compliance audits conducted by Chemical Waste Management's Environmental Management Department shall not constitute an 'instance of noncompliance' under this condition."

IV. Reason/Rationale For Proposed Change: CSSI objects to this condition, which requires CSSI, at the time it submits monitoring reports, to report to the agencies any noncompliance with the permit that is not otherwise reported. CSSI recognizes that such a condition is specified in the RCRA rules. However, it is outside the agencies' statutory authority. RCRA and the comparable Oregon statutes provide that CSSI must provide the agencies with access to its records relating to wastes treated, stored or disposed at the facility for the purpose of allowing the agencies to enforce the provisions of RCRA and the Oregon law. Further, Section 3013(2) of RCRA and the comparable provision of the Oregon statutes allow the agencies to order CSSI to undertake appropriate reporting when there is a "substantial hazard" in



order to ascertain the nature and extent of such hazard. However, this condition goes well beyond this limited statutory authority.

To encourage, rather than discourage, internal compliance monitoring, the agencies should place reasonable limits on what is required to be reported as instances of noncompliance. Nothing in the regulations would preclude the agencies from doing so and, without such reasonable limits, this permit condition directly conflicts with EPA's published policy of not making routine requests for internal environmental audit reports. 51 Fed. Reg. 25004, 25007 (July 9, 1986).

Under other conditions of the permit, CSSI must report, within 24 hours, "any noncompliance with this permit that might endanger health or the environment." Condition I.U.(1). CSSI must also report any failure to meet its deadlines under any compliance schedule in the permit, Condition I.T., and it must report monitoring results, Condition I.S., which conceivably could indicate noncompliance with the permit in some instances. Each of these reporting obligations is triggered by an event or occurrence capable of objective determination.

The reporting obligation under this condition, however, is far broader and would be triggered by events or occurrences as to which "compliance" or "noncompliance" with the permit could be determined only subjectively. Such subjective determinations are an inappropriate basis for requiring self-policing, are in contravention of EPA's policy on environmental audits, and will discourage candid internal monitoring of the facility's compliance status.

CSSI is subject to an intensive compliance audit program. Under this program, an Environmental Compliance Officer ("ECO") is assigned to the facility. The ECO reports directly to the Environmental Management and Legal Departments at Chemical Waste Management's corporate headquarters rather than to CSSI facility management.

The ECO program would be a primary source of information that could potentially trigger a reporting obligation under this condition. CSSI therefore requests that, to encourage candid self-evaluation, the agencies recognize this auditing program for what it is -- an investigation of environmental performance that will involve compliance as well as noncompliance issues and does not concern a determination of "instances of noncompliance." Otherwise, this permit condition will serve only to chill candid self-evaluation. EPA agrees. In its published policy on environmental audits, EPA acknowledges the need for regulated entities "to self-evaluate environmental performance with some measure of privacy" when it states that "routine Agency requests for audit reports could inhibit auditing in the long run, decreasing both the quantity and quality of audits conducted." 51 Fed. Reg. at 25005, 25007 (emphasis added).

CSSI would obviously have little incentive to continue its broad program of self-evaluation and free-ranging discussion of its regulatory obligations if faced with this permit condition. As EPA recognizes in its audit policy, this permit condition will inevitably result in narrowing the focus, and "decreasing . . . the quality of" CSSI's internal inquiries. 51 Fed. Reg. at 25007.

The lack of incentive to examine and to question its own compliance status will be reinforced if CSSI's competitors "benefit" by their lack of such programs. In light of all the other compliance reporting requirements in the permit, as well as the inspection and enforcement mechanisms available to the agencies, there is simply no reason why the agencies should not recognize the real world difference between compliance/noncompliance issues and concerns, and "instances of noncompliance."

Accordingly, this condition should be revised by providing that noncompliance issues and concerns, to the extent they derive from CWM's compliance auditing program, are not considered instances of noncompliance.

\* \* \*

I.Z. Disposal Requests.

I. Condition: I.Z.

II. Issue: This condition arbitrarily allows the Director to require a disposal request from CSSI before waste may be treated, stored or disposed and allows the Director to deny the request for various reasons.

III. Proposed Change: Delete this condition.

IV. Reason/Rationale for Proposed Change: This condition gives the Director discretion to authorize or not to authorize treatment, storage or disposal of any particular waste and to specify which hazardous waste management unit must be used for any particular waste. The Director in effect has authority to

override the authorizations given by this permit. A discretionary authority this broad must be granted by statute to the Director.

Under Oregon law the Director is "limited to those powers conferred by statute, either expressly or by necessary implication." Campbell v. Board of Medical Examiners, 16 Or App 381, 392, 518 P2d 1042 (1974). ORS Chapter 466 does not provide the necessary statutory authority. The statute cited as authority in the Fact Sheet (p. 16 of 91), ORS 466.020, does not grant the authority. ORS 466.020 provides general authority for the Environmental Quality Commission to adopt rules and to issue orders. Nowhere does ORS 466.020 give the Director the authority to render an authorized permit meaningless by revoking a disposal request authorization for the reasons given. For these reasons, this condition should be deleted. In addition, because this condition is not a part of the State authorized program, it should be deleted.

\* \* \*

I.AA. Assured Disposal for Oregon Wastes.

I. Condition: I.AA.

II. Issue: This condition arbitrarily requires CSSI: (1) to dispose of any waste from Oregon for which the Department directs CSSI to provide treatment and disposal and (2) to construct treatment and disposal facilities necessary for the disposal if they are not available.

III. Proposed Change: Delete the word "shall" from the first sentence of this condition and the phrases "the obligation of" and

"shall depend upon" from the second sentence and revise the condition to read:

"If the Department determines that any waste originating in Oregon should be disposed of at the facility, due to unavailability or infeasibility of alternative disposal locations, methods, or other factors, the Permittee may at its sole discretion provide disposal for such waste under the treatment or disposal procedures directed by the Department and using existing hazardous waste management units and equipment, provided such treatment or disposal does not violate either federal or state statutes, regulations or any conditions of this permit. In the event that such treatment or disposal procedures require additional units or equipment, the Permittee may consider, in reaching its decision, the provision of reasonable financial commitments by the waste generator satisfactory to the Permittee. This permit condition is State requirement only."

IV. Reason/Rationale for Proposed Change: This condition imposes extremely onerous requirements on CSSI. CSSI is required to dispose of any waste the Department directs including wastes CSSI does not presently choose to accept. Also, CSSI is required to build and to operate any treatment or disposal facility the Department believes necessary for disposal even though CSSI has not chosen to have such a treatment or disposal facility at the facility.

Under Oregon law the Department is "limited to those powers conferred by statute, either expressly or by necessary implication." Campbell v. Board of Medical Examiners, 16 Or App 381, 392, 518 P2d 1042 (1974). It is questionable whether the Oregon Legislature could or would ever authorize such an interference with a private business operation. Significantly,

the Legislature has not attempted to do so for hazardous waste treatment and disposal facilities.

The Fact Sheet (p. 17 of 91) cites ORS 466.020 as authority for this condition. ORS 466.020 provides general authority for the Environmental Quality Commission to adopt rules and to issue orders. Nowhere does this provision create authority for the Department to dictate to CSSI that it must treat and dispose of wastes that it does not want or that it must construct and operate facilities that it does not want. If the Legislature had wanted to grant the Department the power to exercise a condition like this one, the Legislature would have so provided. Simply to examine the detailed authority granted to the Department elsewhere in Chapter 466 is to refute the argument that the Department has the statutory authority to impose this condition.

The Legislature has given the Commission and the Department authority to meet the concerns apparently motivating this condition. Under ORS 466.155 the Commission has the power to acquire property for the disposal of hazardous wastes by condemnation. Under ORS 466.175(2) the Department, upon the payment of just compensation, may acquire and own an existing facility for treating or disposing of hazardous waste. Using either one of these approaches, the Department could provide a facility for disposal of any wastes from Oregon that CSSI was not accepting.

CSSI, however, is willing to agree to the imposition of this condition if it is adopted in the form shown in the proposed change. If the proposed changes are not adopted, this condition

should be deleted for the above reasons and also because it is not a part of the State authorized program.

\* \* \*

I.BB. Property Line Setback.

I. Condition: I.BB.

II. Issue: There is no authority to impose the property line setback in OAR 340-120-005(9) on CSSI's facility.

III. Proposed Change: Delete this condition.

IV. Reason/Rationale for Proposed Change: The property line setback of 1,000 feet imposed by OAR 340-120-005(9) on CSSI on May 20, 1994 cannot validly apply to this permit.

The property line setback requirements in OAR 340-120-010(2)(e) and 340-120-005(9) were created by the Environmental Quality Commission under the authority granted by Chapter 670, 1985 Oregon Laws (Senate Bill 138). The Legislature directed in Chapter 670, however, that this new law and any rules adopted under it were not to apply to CSSI's pending Part B permit application. Chapter 670, section 48, provided:

"Notwithstanding, any other provision of this Act, the Commission shall process any application submitted to the commission on or before January 31, 1984, for renewal of a license to operate a PCB or hazardous waste disposal facility operating on the effective date of this Act, according to the provisions of ORS 459.410 to 459.450 and 459.460 to 459.490 as those sections read before the effective date of this Act."

CSSI's Part B permit application was submitted to the Commission before January 31, 1984 and, thus, qualifies for this provision. Testimony during considerations of Chapter 670 support this conclusion. During floor debate, Senator Day in the Senate

and Representatives McCracken and Throop in the House testified that CSSI's Part B permit application was to be processed under the law that existed in Oregon before Chapter 670.

The 1,000 foot property line setback in OAR 340-120-005(9) cannot apply to this permit. In addition, because this condition is not a part of the State authorized program, it should be deleted from the permit.

\* \* \*

I.CC. Schedule for Approvals. [new condition]

I. Condition: I.CC. [new]

II. Issue: This condition adds a new requirement to the permit providing the procedures for approval by the agencies of changes by CSSI of any of its plans.

III. Proposed Change: Add a new condition:

"Materials or plans required by this permit to be submitted to the Agency or the State for approval shall be approved within 90 days of receipt by the Agency or the State if in conformance with the permit or disapproved if not in conformance. If the Agency or the State fails to approve or to disapprove any submittal within 90 days of receipt, the Agency or the State will be deemed to have waived review. If the Agency or the State disapproves any submittal, the Permittee may resubmit modified materials or plans or may consider the disapproval as final agency action and may seek appropriate review of the action."

IV. Reason/Rationale for the Proposed Change: Certain materials and plans must be submitted for Agency or State approval. However, there is no provision outlining the schedule to be followed by the Agency or the State in reviewing a



submittal, the standard against which the submittal will be judged or the status of CSSI's submittal if disapproved.

The proposed new condition establishes a time for review of a submittal, standards for review of a submittal and the effect of disapproval of a submittal.

## II. GENERAL FACILITY CONDITIONS

### II.A. Design and Operation of Facility.

I. Condition: II.A.(1)

II. Issue: This condition arbitrarily adds an ambiguous requirement to the other requirements of the permit.

III. Proposed Change: Delete this condition.

IV. Reason/Rationale For Proposed Change: In condition II.G., the agencies state that compliance with Attachment 6 constitutes compliance with 40 CFR § 264.31. However, this comment also appears to be based primarily on 40 CFR § 264.31. Thus, it is redundant or in the alternative, seems to suggest that there is something more which CSSI needs to do to comply with this section. If so, it should be specifically stated.

Furthermore, this condition generally follows the requirements created by 40 CFR § 264.51 for CSSI's Contingency Plan. Condition II.H., however, requires CSSI to follow the procedures in its Contingency Plan attached as Attachment 7 to the permit and states that compliance with the Contingency Plan constitutes compliance with 40 CFR § 264.51 and other rules.

This condition means that although CSSI complies with its Contingency Plan and the other provisions of its permit there is still something further CSSI must comply with to satisfy condition II.A.(1). The agencies thus are attempting unreasonably to expand CSSI's obligations beyond the other terms of the permit without identifying in any way how those obligations differ from

the other terms of the permit. This condition should be deleted because there is neither need nor authority for it.

\* \* \*

## II. B. Required Notices.

I. Condition: II.B.(1)

II. Issue: This condition does not follow the RCRA rule and erroneously requires notice sooner and more frequently than the rule.

III. Proposed Change: Delete "the Permittee expects to receive" from the first sentence of this condition and the phrase "in the same calendar year" from the second sentence, and revise the condition to read:

"The Permittee shall notify the Director and Administrator in writing at least four weeks in advance of the date hazardous waste from a foreign source, is expected to arrive at the facility. Notice of subsequent shipments of the same waste from the same foreign source is not required."

IV. Reason/Rationale for Proposed Change: 40 CFR § 264.12(a) provides the authority for this condition. The condition revises the rule, however, in two respects: (1) to require notice at least four weeks in advance of receipt of waste by CSSI rather than arrival of waste at the facility and (2) to require annual notice for waste from the foreign source rather than one notice. Because CSSI also operates a transportation company for hazardous waste, four weeks before receipt of waste in many cases is earlier than four weeks before arrival of waste at the facility. Also one notice for waste from a foreign source is sufficient as a practical matter and under the rules, rather than

annual notices. The rule does not authorize the two revisions in the condition, and the condition should be revised to reflect the rule.

\* \* \*

## II. C. General Waste Analysis.

### I. Condition: II.C.(1)(a)

II. Issue: This condition arbitrarily requires CSSI to inspect all containers for free liquid in the next 5 shipments from a generator following the discovery of free liquid in a container from the generator.

III. Proposed Change: Change the Waste Analysis Plan, Attachment 2 to the draft permit, in Section 5.1, Page 30, after the third sentence of the last paragraph of Receiving Procedures. The last sentence of the existing paragraph would be deleted and two new sentences inserted in the paragraph, with the second inserted sentence being the same as the first sentence from condition II.C.(1)(a) in the draft permit:

In the case of loads of drums or portable tanks, each shipment is checked against the accompanying manifest to verify drum count, condition, and material identification. At least 10 percent of the containers from each generator's waste stream(s) are selected at random for sampling. Applicable "Mandatory" and "Supplemental Analyses" are run for WPS/manifest comparison and to confirm the acceptability of the waste for the targeted waste management unit. Prior to placement of waste in the landfill, all containers not sampled or receiving analysis will be opened and visually inspected for free liquid. In the event that free liquid is found in any container of any incoming waste shipment and such liquid is not identified on the generator's manifest, CSSI shall document the discrepancy in the operating record and follow the procedures in the Waste Analysis Plan to

resolve the discrepancy. Except as noted below, container samples that are related to one generator and one process may be composited (no more than 10 sample composites) prior to analysis, providing that individual samples are similar in physical appearance. After acceptance, all containerized liquid wastes are subjected to a LWCT using composite sampling with no more than 10 samples composited prior to further treatment. Samples that are subject to the Paint Filter Liquids Test are not composited but are tested individually.

IV. Reason/Rationale for Proposed Change: The proposed change addresses one of the agencies' concerns -- that wastes containing free liquid not be placed in the landfill -- in a more effective and environmentally sound way and at the same time will be less burdensome on CSSI's operations and document handling personnel. To begin, inspecting all drums, rather than those in the next five loads, is obviously more protective of the environment and provides a much greater certainty that the statutory requirement that liquids not enter a landfill is met. Additionally, it avoids the virtually impossible requirement that CSSI must inspect and document that drums were inspected for free liquid from a particular generator over the next five shipments, especially when those shipments might spread out over ten years or more. It would be difficult, if not impossible, to keep track of when the fifth load from a single generator had arrived at the site if the time between loads was as much as two years. Such a burden on the site is unnecessary in light of the above proposal.

Furthermore, while the Fact Sheet (p. 19 of 91) in effect suggests that the second purpose for the condition is to police generators to ensure they comply with the law, such is not

a proper role for CSSI. CSSI is a customer-service oriented business and prefers to treat all customers as equally as possible. All generators and waste will be treated similarly under CSSI's proposal to open and to inspect visually all containers for free liquids and to document the discrepancy whenever a container contains free liquid and the liquid is not identified on the generator's manifest.

\* \* \*

I. Condition: II.C.(1)(b)

II. Issue: This condition may be interpreted to limit CSSI from receiving land disposal restricted wastes at the facility even though those wastes will not be disposed there. It also imposes an arbitrarily short period of time to submit a permit modification.

III. Proposed Change: The number "30" should be deleted from the second sentence and the condition revised to read:

"The Permittee shall be fully responsible to ensure that the wastes land disposed at the facility do not violate the provisions of the Land Disposal Restrictions rules as contained in 40 CFR Part 268. To the extent that modifications to the Permittee's Waste Analysis Plan are needed to comply with future self-implementing provisions of 40 CFR Part 268, the Permittee must submit a permit modification request to the Director and the Administrator within 180 days of the effective date of the self-implementing provisions."

IV. Reason/Rationale for Proposed Change: The wording of this condition is too restrictive and goes beyond the intent and requirements of 40 CFR Part 268. CSSI may receive these wastes (e.g., California List wastes) and transfer them to another facility to treat and to dispose them. In addition, CSSI may

receive a land disposal restricted waste which has not been properly treated and reject it for disposal. The restrictions in 40 CFR Part 268 are on land disposal of these materials, not receipt of them.

Also, 30 days is too short a period of time to prepare and to submit a permit modification if the rule changes are significant. The 180 days provided in the August 14, 1987 proposed federal rules is reasonable. 52 Fed. Reg. 30570, 30578 [proposed 40 CFR § 270.42(q)] (Aug. 14, 1987).

\* \* \*

I. Condition: II.C.(1)(c)

II. Issue: This condition requires CSSI to use the "Unconfined Compressive Strength of Cohesive Soil Test" (UCST) as a preacceptance test in lieu of the "Stabilization Evaluation Test."

III. Proposed Change: Delete this condition. CSSI's language as provided in its Part B application should be used. CSSI's language uses the "Stabilization Evaluation Test" to ensure materials will be properly stabilized when necessary. It also uses the "Pocket Penetrometer" as a post-treatment analysis in addition to the "Paint Filter Liquids Test."

IV. Reason/Rationale for Proposed Change: The requirement to use the UCST is meaningless for a number of reasons. First, this condition is intended to modify Section 6.2.1 of the Waste Analysis Plan, which involves the actual treatment process of wastes on site. However, in the condition, the agencies refer to the test as a "preacceptance" test. Preacceptance procedures are

listed in Section 4.0. These procedures are for determining the acceptability of wastes for treatment. The agencies' reference to the UCST as a "preacceptance" method in this section does not make sense.

Additionally, and more importantly, the agencies apparently intend to replace CSSI's current pretreatment analyses for liquid wastes which will be stabilized -- or Stabilization Evaluation Test (SET) -- with the UCST. On page 20 of 91 of the Fact Sheet, the agencies specifically state that the UCST will be used as part of the pretreatment analysis. However, this test is in no way intended by the EPA guidelines nor is it capable of being used as a pretreatment stabilization test to determine reagent mixture ratios. The EPA's own guidance states first that it is intended as a post-treatment test and second that this test is to be used as a method of determining the compressive strength of soils, not sludges and liquids. See pp. A-1 through A-3 of the "Standard Test Method for Unconfined Compressive Strength of Cohesive Soil," attached to these comments as Exhibit 11. The test simply does not establish parameters needed to assure proper stabilization. It is only supposed to demonstrate the structural integrity of a material that has already been stabilized. The UCST does not serve any purpose in the context of a pretreatment test. It is misapplied if used for any purpose other than demonstrating structural integrity of cohesive soils.

Furthermore, even if it were an appropriate test, the requirement that the stabilized mixture achieve an unconfined compressive strength of at least 50 psi is infeasible. EPA



apparently has absolutely no data to support a 50 psi requirement for a wide range of materials. Moreover, preliminary results of testing done by Chemical Waste Management demonstrates that, although laboratory results indicated that stabilization occurred, the majority of stabilized wastes failed to meet EPA's guidelines of 50 psi. Exhibit 13 attached to these comments is a report on this testing. Moreover, it should be noted that the examples used in EPA's evidence contained solids with compressive strengths greater than 25 psi prior to stabilization. These examples are in no way representative of the wide range of materials which must be stabilized at a commercial TSD facility.

Finally, the EPA itself has indicated that the test should only be used under certain circumstances (i.e. if there are concerns about the stabilization method used). The document "Prohibition on the Placement of Bulk Liquid Hazardous Waste in Landfills, Statutory Interpretive Guidance" does not specify the use of ASTM method D2166-85 to verify that a chemical reaction has been achieved and that the waste has been properly stabilized, and not simply absorbed. The document does state that "EPA recommends the use of an unconfined strength test to identify true stabilization reactions when it is not obvious that chemical stabilization has taken place." (p. iv, emphasis added). The document goes on to repeat this position at pages 2-3 of the document. It states, "if after reviewing a particular stabilization process, it is not obvious that chemical stabilization has taken place (i.e., if there are any concerns that "stabilization" is occurring primarily due to the addition of

sorbents), then a representative sample of the treated waste should pass the indirect chemical stabilization test (unconfined compressive strength) as described under the Test Method." (Emphasis added). This position is again restated throughout section 3 of the document (e.g., pages 3-1, last sentence continued on the top of page 3-2, page 3-5 last sentence of first paragraph, 3-11 last sentence continued on the top of page 3-12, etc.).

The document also describes processes which it recognizes as stabilization technologies which involve chemical reactions. The document states:

"Examples of the most commonly used stabilization technologies are Portland cement-based and pozzolanic processes. . . . The Portland cement-based process is also effective in removing liquids because the reaction of the anhydrous cement powder and water (liquids) incorporates the water into the solid mineral species. The reaction first produces a colloidal calcium-silicate-hydrate gel of indefinite composition and structure. Hardening of the cement is brought about by interlacing of thin, densely packed, silicate fibrils growing from the individual cement particles.

"Waste stabilization techniques based on lime products (as opposed to Portland cement) usually depend on the reaction of lime with a fine-grained silicious (pozzolanic) material and water to produce a solid that is sometimes referred to as pozzolanic cement. The most common pozzolanic materials used in waste treatment are fly ash, ground blast furnace slag and cement kiln dust." (pp. 3-9 to 3-10, emphasis added).

The proposed stabilization process that is described in the CSSI permit application is in fact based upon one of the stabilization methods recognized by EPA -- a "Portland cement" or

"pozzolanic" type process. Therefore, because CSSI uses a chemical stabilization process,<sup>2</sup> EPA's own guidance dictates that CSSI need not use the unconfined compressive strength test. Furthermore, the use of the "Stabilization Evaluation Test" as a pretreatment analysis and "Pocket Penetrometer Test" as a post treatment analysis described in the Waste Analysis Plan exceeds the recommendation of the EPA Statutory Interpretive Guidance document cited above.

CSSI has developed and proposes to use the "Stabilization Evaluation Test" in order to ensure that a "recipe" has been developed which will result in optimum chemical stabilization of the waste. In addition, the "Pocket Penetrometer" test has been proposed as a post-treatment analysis in addition to the "Paint Filter Liquids Test" to ensure further that the recipe developed in the pretreatment phase (using the "Stabilization Evaluation Test") has actually resulted in an optimum chemically stabilized product. Finally, it is notable that EPA itself has specifically stated that the UCST is only one of several tests which can be used as a means of demonstrating chemical stabilization has occurred. It is in no sense a mandatory test. There are other acceptable tests that demonstrate chemical stabilization.

The UCST should not be included in this permit condition because there is absolutely no supporting data to indicate that

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<sup>2</sup>In this regard, see excerpts from CWM Technical Notes which the agencies attached to the permit as part of Attachment 14.

the test represents a valid approach for evaluating stabilized waste products.

I. Condition: II.C.(2)

II. Issue: This condition arbitrarily requires CSSI to retain outdated versions of its Waste Analysis Plan in addition to the currently effective version.

III. Proposed Change: Delete the phrase "and any approved modifications" and revise this condition to read:

"The Permitted shall maintain a copy of the latest approved Waste Analysis Plan, included as Attachment 2 of this permit at the facility until the facility is fully closed and certified."

IV. Reason/Rationale For Proposed Change: 40 CFR § 263.13(b), the regulatory basis for this condition, does not require all modifications or versions of CSSI's Waste Analysis Plan to be maintained at its facility, only the effective version. This condition should be revised to reflect the requirements of the rule.

\* \* \*

I. Conditions: II.E.(4)(b) and II.E.(c)

II. Issue: These conditions require the permittee to notify the Director and Administrator in writing within 15 calendar days of changes to the Inspection Plan. They arbitrarily require a narrative to accompany the notice of changes.

III. Proposed Change: Delete the phrase "accompanied by a narrative explanation" from the second sentence of each of these conditions so they read:

"II.E.(4)(b) [second sentence] The Permitted must submit a copy of such a revised

inspection form to the Director and the Administrator within 15 calendar days of the date of the revision."

"II.E.(4)(c) [second sentence] The Permittee must submit a copy of such a new inspection form to the Director and the Administrator within 15 calendar days of the date the form is created or the date when equivalent equipment is placed in operation, which [sic] occurs first."

IV. Reason/Rationale for Proposed Change: The Fact Sheet (p. 22 of 91) states that the changes allowed by these two conditions are "minor" and do not "present a potential impact to human health or the environment." The narrative required by the conditions is therefore excessive and unnecessary. The nature of the changes contemplated does not warrant a narrative. CSSI will continue to send in copies of all changes to its Inspection Plan. The changes allowed by these conditions will all be stricter in nature or additional to existing inspections, neither of which would be changes the agencies would be likely not to accept.

\* \* \*

#### II.F. Training Plan.

I. Condition: II.F.(1)

II. Issue: This condition erroneously implies that CSSI must do something beyond the provisions in its Training Plan in order to "properly train" its personnel.

III. Proposed Change: Delete the word "properly" and revise the first sentence of this condition to read:

"The Permittee shall ensure that all personnel who handle hazardous waste are trained in hazardous waste management, safety and emergency procedures, as applicable to their job description in accordance with the Permittee's Training Plan."

IV. Reason/Rationale For Proposed Change: The first sentence in this condition suggests that CSSI must do something in addition to the procedures in its Training Plan to "properly train" its personnel. The Fact Sheet (p. 23 of 91), however, recognizes that CSSI's Training Plan meets the requirements of 40 CFR § 274.16 for training plans. This sentence in the condition should be revised as proposed.

\* \* \*

II.J. Closure.

I. Condition: II.J.(1)

II. Issue: This condition incorrectly suggests that CSSI must take actions in addition to its approved Closure Plan in order to close properly a hazardous waste management unit.

III. Proposed Change: Delete "at a minimum" from the second sentence of the condition so it reads:

"Compliance with 40 CFR §264.111 shall require closure of each waste management unit in accordance with the Closure Plan included as Attachment 8, Section 1 (including Appendices A, B, and C) of this permit."

IV. Reason/Rationale for Proposed Change: The second sentence in this condition suggests that CSSI may have to do something in addition to the procedures in its Closure Plan to close properly a hazardous waste management unit. The Fact Sheet (p. 24 of 91), however, recognizes that CSSI's Closure Plan meets the requirements for closure in 40 CFR § 264.111. This sentence in the condition should be revised as proposed.

\* \* \*

I. Condition: II.J.(3)

II. Issue: The first sentence in this condition contains a typographical error.

III. Proposed Change: Revise the first sentence in this condition to read:

"For all landfill units, minor deviations from the permitted closure designs, specifications, or procedures necessary to accommodate proper closure must be noted on the as-built-drawings and the rationale for those deviations in designs, specifications, or procedures must be provided in narrative form with the closure certification statements."

IV. Reason/Rationale for Proposed Change: The first sentence in this condition omits the word "procedures" from the types of minor deviations from the Closure Plan that are allowed. Elsewhere in the sentence, procedures are included in minor deviations so it appears that the omission is a typographical error.

\* \* \*

I. Condition: II.J.(7)

II. Issue: (1) This condition erroneously requires CSSI to close units S-1, S-4, S-8A, S-8B in 1988. However, CSSI will voluntarily agree to close units S-8A and S-8B by that date and to use units S-1 and S-4 to store only containerized solid waste after that date.

(2) This condition also erroneously requires that CSSI must close the units within the dates and time limits specified in Table 1-11 in Attachment 8, Closure Plan.

III. Proposed Change: Delete the phrases "S-1, S-4," and from this condition and revise it to read:

"The Permittee shall close all waste management units with the exception of landfills in which the final waste has not been placed within the dates and time limits specified in the Closure Plan (Attachment 8, Table 1-11 of this permit), with the following modification:

"Attachment 8, Table 1-11: Change Table to indicate: 'CSSI has voluntarily agreed that the existing RCRA container storage areas designated as units S-8A and S-8B shall be certified as closed in 1988, rather than 2000, as proposed by the Permittee.'"

IV. Reason/Rationale for Proposed Change: (1) All 4 existing container storage areas (S-1, S-4, S-8A, S-8B) fully meet the requirements of 40 CFR Part 264 Subpart I for storage of containers. Neither the Fact Sheet (p. 26 of 91 and p. 40 of 91) nor recent inspections and inspection reports by the agencies show that any requirements of the RCRA rules have not been met for the areas.

However, CSSI has determined that it will voluntarily agree to close S-8A and S-8B in 1988 in accordance with the agencies' wishes. Also, CSSI has determined that after 1988, it will store only containerized solid waste in S-1 and S-4.

There is no question that when S-1 and S-4 are operated for containerized solid waste only, they will fully meet the requirements of 40 CFR Part 264 Subpart I including 40 CFR § 264.175. For example, S-1 and S-4 have berms to prevent run-on and are sloped to prevent run-off. They are capable of containing 10% of the volume of containers within them. They are lined with a certified impermeable liner even though storage areas for containerized solid waste need not meet these requirements



[see 40 CFR § 264.175(c)]. They are covered with a six-inch gravel layer, in part to elevate containers above accumulated liquid, if any. The revised drawings in Exhibit 5 attached to these comments show the gravel layer in S-1 and S-4. Finally, drums in these storage areas are inspected daily in accordance with CSSI's Inspection Plan.

Thus, there is no reason for S-1 and S-4 not to continue to be used for the storage of containers of solids. There can be no conceivable threat posed to the environment by S-1 and S-4.

CSSI incorporates the Reason/Rationale from its comment on Attachment 12, Container Storage -- Design and Operations, supra.

(2) The rule cited in the Fact Sheet (page 25 of 91), as authority for this condition, 40 CFR § 264.112(b)(6), was promulgated after April 30, 1985 and thus is not part of the Oregon authorized program. The rule in the Oregon authorized program, 40 CFR §264.112(a)(4) provides for "an estimate of the expected year of closure" for waste management units.

CSSI's Part B permit application in Table 1-11 of the Closure Plan provided estimated dates for expected years of landfill closures. These estimated dates are just that, estimates.

It is patently unfair and arbitrary to require CSSI to submit estimated dates for closure and then issue a permit that requires closure using the estimated date as an exact date. It is very difficult to predict the life of landfills. Changes to the regulations on landfilling and changes to clean-up technologies

explain much of the difficulty. Availability of superfund and other wastes has a strong bearing on the life of a landfill.

Using estimated dates helps the agencies predict available capacity while providing the flexibility needed to respond to future developments. The proposed change will mean that Landfills L-7, L-8, L-9, L-10, L-13 and L-12 would still be shown in the Closure Plan with estimated date for closure.

\* \* \*

I. Condition: II.J.(11)

II. Issue: This condition erroneously suggests that there are requirements beyond those in CSSI's Closure Plan that must be met in order to close a hazardous waste management unit.

III. Proposed Change: Delete the phrase "that is necessary to confirm the absence of contamination when closing any management unit" from the first sentence of this condition so that the first sentence reads:

"The Permittee shall follow the procedures outlined in the Closure Plan [Attachment 8, Appendix 8 of this permit, as modified in permit conditions II.J.(12)(a) through II.J.(12)(d)] for all soil sampling and analysis."

IV. Reason/Rationale for Proposed Change: The first sentence in this condition suggests that CSSI may have to do something in addition to the procedures in its Closure Plan for soil sampling and analysis to close properly a hazardous waste management unit. The Fact Sheet (p. 24 of 91), however, recognizes that CSSI's Closure Plan meets the requirements for closure in 40 CFR § 264.111. In addition, condition II.J.(1) requires CSSI to meet all of the requirements in the rules for

closure. This sentence in the condition should be revised as proposed.

\* \* \*

I. Condition: II.J.(12)(b)

II. Issue: This condition erroneously requires CSSI to exclude background samples that show high concentrations of hazardous constituents when compared to other background samples.

III. Proposed Change: Delete this condition. In the alternative, specify that obvious outliers will be determined by reference to known natural geologic conditions at the facility by deleting the phrase "contained in other background samples" and revising the condition to read:

"Appendix A, page A-2, add the following language --

'If analysis of any background sample indicates that it is an obvious outlier (i.e., distinctly higher concentrations of hazardous constituent(s) than would be expected to occur at the facility based on natural geologic conditions in the vicinity), then that sample shall not be included in the background set and shall be replaced with a new background sample.'

IV. Reason/Rationale for Change: So-called "outliers" for some soil constituents may represent legitimate high concentrations in native Arlington soils. Clean closure might be impossible where a high concentration is excluded as an "outlier" from the background samples and the same high concentration occurs in the samples for the unit being closed. The likelihood of such an occurrence is most probable for metals.

Even so, under the Closure Plan, CSSI composites the five samples taken. This in effect dilutes the effect of any high concentration. Thus, our Clean Closure Standard is stricter than necessary already. This condition should be deleted.

If for some reason this condition is not deleted, the obvious outliers should be determined based on comparison to natural geologic conditions in the vicinity of the facility, not simply the other background samples. The proposed change provides language to require such a comparison.

\* \* \*

I. Condition: II.J.(12)(c)

II. Issue: This condition erroneously requires CSSI to do analyses on soil samples for hazardous constituents using 40 CFR Part 261 Appendix VIII. This condition also suggests that CSSI must take additional actions beyond those in its Closure Plan to close a hazardous waste management unit.

III. Proposed Change: Delete the phrases "Final confirmation of the absence of contamination of hazardous constituents in soil shall be demonstrated by" and "261 Appendix VIII" from this condition and revise it to read:

"Appendix A, page A-3 (Table A-1), change Table to indicate --

'Analysis of soil samples for hazardous constituents shall use the list contained in 40 CFR Part 264 Appendix IX (for which analytical procedures are available and excluding all constituents containing a form of polychlorinated-dibenzo-dioxin or polychlorinated-dibenzo-furan), rather than the constituents contained in the priority pollutant list.'"

IV. Reason/Rationale for Proposed Change: CSSI still believes that the priority pollutant list contained in its Closure Plan is the proper list to use for analysis of soil samples. That list is the most representative list of hazardous constituents that might be found in soil samples for closure purposes. Also, that list contains constituents that are the best indicators of contamination if any hazardous constituents are present in a soil sample.

Nevertheless, if the agencies are not willing to allow use of the priority pollutant list, CSSI is willing to use another list. That list is the list in 40 CFR Part 264 Appendix IX and not the list in 40 CFR Part 261 Appendix VIII as included by the agencies in this permit condition.

The Appendix IX list should be modified to delete all hazardous constituents containing dioxin because CSSI will not accept, for treatment or disposal, any waste stream which is listed as a hazardous waste by EPA because it contains as a hazardous constituent (see 40 CFR Part 261, Appendix VII), a form of polychlorinated-dibenzo-dioxin (PCDD) or polychlorinated-dibenzo-furan (PCDF) (e.g., F020, F021, F022, F023, F026, F027, etc.).

\* \* \*

I. Condition: II.J.(14)

II. Issue: This condition erroneously provides that:  
(1) financial assurance mechanisms must be included with a permit modification request; (2) closure must begin immediately on

approval of the closure plan; and (3) the agencies may require a post-closure permit for units clean closed under interim status.

III. Proposed Change: Delete: (1) the phrase "or financial assurance mechanism(s)" from the fourth sentence of this condition, (2) the fifth sentence, and (3) the note after the fifth sentence, so that the last sentence of the condition reads:

"Any necessary modifications to the closure cost estimate or post-closure plan shall be included with the permit modification request."

IV. Reason/Rationale for Proposed Change: (1) 40 CFR § 264.142(c) requires that financial assurance mechanisms are adjusted only after the costs have been agreed to, i.e., when the modification has been approved. Condition II.K.(3) recognizes this requirement. The inclusion of modified financial assurance mechanisms at the time of application is unwarranted, especially because the costs are not set until the modification has been approved.

(2) The fifth sentence should be deleted because weather conditions or some other factor might prevent immediate initiation of closure after approval of a permit modification.

(3) The note is outside the agencies' authority. Under interim status CSSI has an approved closure plan complying with 40 CFR § 265.112. When CSSI closed a unit during interim status using its approved closure plan, that unit was and still is certified clean closed. Any contamination found in an area previously clean closed may or may not be associated with that unit. Likely, it is not. Under the relevant statutes and regulations, neither of the agencies has such discretionary

authority. Any contamination issue that might arise should be handled as a specific issue on its own merits. It cannot automatically be connected to a post-closure permit. Any authority which the agencies may have in this regard, should be invoked on a case-by-case basis, not created by note in a permit condition. Other options are available to the agencies under numerous provisions of statutory authority such as those included in condition I.F.(2).

\* \* \*

I. Condition: II.J.(15)

II. Issue: This condition incorrectly suggests that there are additional requirements that apply to CSSI's facility beyond those in its Closure Plan.

III. Proposed Change: Delete this condition.

IV. Reason/Rationale for Proposed Change: This condition suggests that CSSI's Closure Plan does not adequately provide for final closure of the facility. The condition requires that CSSI submit a modification to its permit to provide for final closure of the facility. The Fact Sheet (p. 29 of 91) states that this modification must include, for example, sampling on roadways.

CSSI's Closure Plan, however, does provide for final closure of the entire facility. Sampling and removal of contaminated soils (if found) is provided for roadways on page 1-34 of CSSI's Closure Plan, Attachment 8 to the permit. The Fact Sheet (p. 24 of 91) recognizes that CSSI's Closure Plan meets the requirements for closure in 40 CFR § 264.111, the regulatory provision establishing requirements for closure of the entire

facility as well as individual units. 40 CFR § 264.111 requires compliance with all of the regulatory closure requirements including 40 CFR § 264.114 which requires a facility soil decontamination plan. Finally, condition II.J.(1) requires CSSI to meet all of the requirements in the rules for closure. This condition should be deleted.

\* \* \*

II.K. Cost Estimate for Facility Closure.

I. Condition: II.K.(4)

II. Issue: This condition erroneously requires CSSI to keep at the facility a copy of each closure cost estimate and adjustment made during the active life of the facility.

III. Proposed Change: Delete the words "active" and "each" and revise this condition to read:

"During the operating life of the facility, the Permittee shall keep a copy of the latest closure cost estimate and adjustment made at the facility in accordance with 40 CFR §264.142(a), (b), and (c)."

IV. Reason/Rationale for Proposed Change: This condition requires CSSI to keep at the facility each closure cost estimate and adjustment made during the active life of the facility. The rule on which this requirement is based, 40 CFR § 264.142(d), however, requires only that the latest closure cost estimate and adjustment be kept at the facility during the operating life of the facility.

Further, the May 2, 1986 amendments to 40 CFR § 264.112 deleted the regulatory requirement that CSSI keep at its facility a copy of all revisions and superceded versions of its Closure



Plan. Because the requirement for keeping prior copies of the Closure Plan at the facility has been deleted, there is likewise no need to keep superseded versions of closure costs estimates and adjustments at the facility. This condition should be revised to reflect the rules.

\* \* \*

II.L. Post-closure Care.

I. Condition: II.L.(1)

II. Issue: The second sentence of this condition unreasonably suggests that CSSI must meet additional requirements for proper post-closure care at its facility beyond the procedures contained in its Post-closure Plan.

III. Proposed Change: Delete the second sentence of this condition.

IV. Reason/Rationale for Proposed Change: CSSI has a Post-closure Plan that complies with the regulatory requirements for post-closure care. The agencies have reviewed that plan and are requiring CSSI to comply with it pursuant to the first sentence of this condition. The Department has also reserved in condition I.D.(1) the right to modify the permit under 40 CFR §§ 270.41 and 270.42 as the requirements of the law change.

The second sentence of this condition suggests that CSSI must meet additional requirements for post-closure care beyond the procedures set forth in its Post-closure Plan. If there are additional requirements, they should have been identified. Because there are none, this condition should be deleted.

\* \* \*

I. Condition: II.L.(2)

II. Issue: This condition erroneously: (1) fixes the post-closure care period at 30 years without allowing for shortening or lengthening the period as required by the RCRA rules and (2) starts the 30 year post-closure care period from the date of receipt of closure certification by the agencies.

III. Proposed Change: Delete the phrase "receipt of the closure certification statements for each unit by the Department and the Agency" and revise this condition to read:

"Except as the period may be shortened or extended as provided in 40 CFR §264.117(a)(2), the period of post-closure care for each landfill unit and any other unit, as applicable, shall be 30 years, to commence upon completion of closure of the unit, except as provided by permit condition IX.G.(2)."

IV. Reason/Rationale for Proposed Change: (1) 40 CFR § 264.117 provides that the post-closure care period is 30 years but also allows for that period to be shortened or extended if certain conditions occur. This condition fixes the period at 30 years without provision for shortening or extending the 30-year period. [Condition II.L.(3) does allow extending the period.] This condition should be revised as proposed to allow for the regulatory authorization for shortening or extending the 30-year period.

(2) This condition also starts the 30-year period running from the date of receipt of the closure certification statements for each unit by the agencies. This provision contradicts the RCRA rules. 40 CFR § 264.117(a)(1) provides that the 30-year period begins to run "after completion of closure of

the unit." 40 CFR § 264.115 shows that "completion of closure" is not the same as "certification of closure" and allows CSSI to provide a certification of closure to the agencies up to 60 days after completion of closure. The condition should be revised to reflect the requirements of the rules.

\* \* \*

I. Condition: II.L.(3)

II. Issue: This condition erroneously allows the agencies to reopen the 30-year post-closure care period at any time and extend it as the agencies deem necessary.

III. Proposed Change: Delete this condition.

IV. Reason/Rationale for Proposed Change: 40 CFR

§ 264.117(a)(2) provides the authority for shortening or extending the 30-year post-closure care period. This condition paraphrases the rule for extending the period, but omits the provision in the rule for shortening the period. In addition, the paraphrase is incorrect by allowing the agencies to extend the period whenever "deemed necessary" rather than whenever there are findings that establish it is necessary. This condition should be deleted and the proposed change in the comment on condition II.L.(2) (providing authority for shortening and extending the period) should be adopted.

\* \* \*

II.M. Cost Estimate for Post-closure Care.

I. Condition: II.M.(4)

II. Issue: This condition arbitrarily requires CSSI to keep

at the facility a copy of each post-closure cost estimate and adjustments prepared during the active life of the facility.

III. Proposed Change: Delete the words "active" and "each" and revise this condition to read:

"During the operating life of the facility, the Permittee shall keep a copy of the latest copy of each post-closure cost estimate and adjustment prepared, at the facility in accordance with 40 CFR §§264.144(a), (b), and (c)."

IV. Reason/Rationale for Proposed Change: This condition requires CSSI to keep at the facility each post-closure cost estimate and adjustment prepared during the active life of the facility. The rule on which this requirement is based, 40 CFR § 264.144(d), however, requires only that the latest post-closure cost estimate and adjustment be kept at the facility during the operating life of the facility.

Further, the May 6, 1986 amendments to 40 CFR § 264.118 deleted the requirement that a copy of the approved post-closure plan and all revisions to it be kept at the facility. Because the rules no longer require that superseded post-closure plans be kept at the facility, there is likewise no need to keep superseded post-closure cost estimates and adjustments. This condition should be revised as proposed to reflect the rules.

\* \* \*

I. Conditions: II.M.(5) and II.M.(6).

II. Issue: The conditions modify two tables in Attachment 10 to change post-closure costs to reflect the expanded groundwater monitoring network provided in the draft permit.

III. Proposed Change: Delete these two conditions.

IV. Reason/Rationale for Proposed Change: These conditions should be deleted to reflect acceptance of the CSSI's groundwater monitoring network in the Part B permit application. CSSI incorporates its comments on conditions IX.A.(1) and IX.A.(2), infra.

\* \* \*

II.N. Financial Assurance for Facility Closure.

I. Condition: II.N.(1)

II. Issue: This condition erroneously requires CSSI to demonstrate continuous compliance with 40 CFR §264.143, as amended by OAR 340-104-143 by providing financial assurance in at least the amount of CSSI's cost estimates.

III. Proposed Changes: Delete the phrase "demonstrate continuous compliance" and the phrase "at least" and revise this condition to read:

"The Permittee shall comply with 40 CFR §264.143, as amended by OAR 340-104-143, by providing documentation of financial assurance, as required by 40 CFR §264.151, as amended by OAR 340-104-151, in the amount of the cost estimates required by permit condition II.K.(1)."

IV. Reason/Rationale for Proposed Change: The term "continuous" is found nowhere in the RCRA rules. The term introduces an uncertainty into the permit as to how continuous compliance differs from compliance so that "continuous" has meaning.

The phrase "at least" suggests that in certain situations, CSSI has to provide documentation of financial assurance in an amount greater than the cost estimates required by

condition II.K.(1). This condition should be revised as proposed to remove the uncertainty created by the wording of the condition.

\* \* \*

II.O. Financial Assurance for Facility Post-closure.

I. Condition: II.O.(1)

II. Issue: This condition erroneously requires CSSI to demonstrate continuous compliance with 40 CFR § 264.145, as amended by OAR 340-104-145 by providing financial assurance in at least the amount of CSSI's cost estimates.

III. Proposed Change: Delete the phrase "demonstrate continuous compliance" and the phrase "at least" and revise this condition to read:

"The Permittee shall comply with 40 CFR §264.145, as amended by OAR 340-104-145, by providing documentation of financial assurance, as required by 40 CFR §264.151, as amended by OAR 340-104-151, in the amount of the cost estimates required by permit condition II.M.(1)."

IV. Reason/Rationale for Proposed Change: The term "continuous" is found nowhere in the RCRA rules. The term introduces an uncertainty into the permit as to how continuous compliance differs from compliance so that "continuous" has meaning.

The phrase "at least" suggests that in certain situations, CSSI has to provide documentation of financial assurance in an amount greater than the cost estimates required by condition II.M.(1). This condition should be revised as proposed to remove the uncertainty created by the wording of the condition.

\* \* \*

I. Condition: II.O.(2)

II. Issue: This condition incorrectly restricts the method of providing financial assurance for post-closure remedial action to a letter of credit.

III. Proposed Change: Delete the phrase "letter of credit" from the first and third sentences of this condition and the phrase "of credit" in the second sentence and revise this condition to read:

"The Permittee shall provide to the Department financial assurance in one of the forms selected by Permittee from those allowed in 40 CFR §264.143 and in the amount of \$408,367 to provide for post-closure remedial action as required by ORS 466.150(2)(f). This amount shall be increased annually by 7.5 percent per annum. This financial assurance shall be provided in the manner cited in 40 CFR §264.143, (including a standby trust fund), and by replacing the concept of 'closure', with 'post-closure remedial action'. Permit condition II.O.(2) is a state requirement only."

IV. Reason/Rationale for Proposed Change: This condition should not limit CSSI solely to a letter of credit as the mechanism for providing financial assurance for post-closure remedial action. Although a letter of credit might currently be the best choice for financial assurance, during the 10-year term of the permit one of the other mechanisms in 40 CFR § 264.143 might be a better choice.

\* \* \*

II.P. Liability Requirements.

I. Conditions: II.P.(1) and II.P.(2)

II. Issue: These conditions erroneously require CSSI to demonstrate continuous compliance with 40 CFR § 264.147(a) as

amended by OAR 340-104-147 by providing insurance of at least certain amounts.

III. Proposed Change: Delete the phrase "demonstrate continuous compliance" and the phrase "at least" from each of these conditions and revise the conditions to read:

"II.P.(1) The Permittee shall comply with the requirements of 40 CFR §264.147(a), as amended by OAR 340-104-147, and the documentation requirements of 40 CFR §264.151, as amended by OAR 340-104-151, including the requirements to have and maintain liability coverage for sudden accidental occurrences in the amount of \$1 million per occurrence with an annual aggregate of \$2 million, exclusive of legal defense costs.

II.P.(2) The Permittee shall comply with the requirements of 40 CFR §264.147(b), as amended by OAR 340-104-147, and the documentation requirements of 40 CFR §264.151; as amended by OAR 340-104-151, including the requirements to have and maintain liability coverage for nonsudden accidental occurrences in the amount of \$3 million per occurrence with an annual aggregate of \$6 million, exclusive of legal defense costs.

IV. Reason/Rationale for Proposed Change: The term "continuous" is found nowhere in the RCRA rules. The term introduces an uncertainty into the permit as to how continuous compliance differs from compliance so that "continuous" has meaning.

The phrase "at least" suggests that in certain situations, CSSI may have to provide documentation of insurance in amounts greater than the amounts specified in each condition. These two conditions should be revised as proposed to remove the uncertainty created by the wording of the conditions.

\* \* \*



II.Q. Incapacity of Owners or Operators, Guarantors,  
or Financial Institutions.

I. Condition: II.Q

II. Issue: This condition erroneously requires compliance with 40 CFR § 264.148 whenever necessary.

III. Proposed Change: Delete the phrase "whenever necessary" so this condition reads:

"The Permittee shall comply with 40 CFR §264.148."

IV. Reason/Rationale for Proposed Change: The phrase "whenever necessary" suggests that there are times when 40 CFR § 264.148 should be followed and times when it should not. The phrase should be deleted as proposed to remove the ambiguity.

III. CONTAINER STORAGE

III.A. Design and Operation.

I. Condition: III.A.(1)(a)

II. Issue: This condition erroneously requires compliance with condition I.2. and also fails to designate that condition as a state requirement only.

III. Proposed Change: Delete the phrase "and in accordance with permit condition I.2." from the first sentence in this condition so the first sentence reads:

"In storage units S-1, S-4, and the Main Container Storage Unit, the Permittee may store any containerized wastes listed on the Part A permit application, included as Attachment 11 of this permit."

IV. Reason/Rationale for Proposed Change: CSSI incorporates the Reason/Rationale from its comment on condition I.2.

\* \* \*

I. Condition: III.A.(3)

II. Issue: This condition erroneously suggests that there are additional requirements CSSI must meet for storage of containerized waste beyond the procedures submitted with its permit application, included with the permit as Attachment 12.

III. Proposed Change: Delete the phrase "and permit condition II.A.(1)" so that this condition reads:

"The Permittee shall store containerized waste in the manner described in Attachment 12 of this permit, except as otherwise specified in this section of the permit. Compliance with the storage operation procedures outlined in Attachment 12 shall constitute compliance with the following requirements of 40 CFR Part 264:

\$264.171	Condition of containers;
\$264.172	Compatibility with waste containers;

\$264.173	Management of containers;
\$264.174	Inspections
\$264.176	Special requirements for ignitable or reactive wastes;
\$264.177	Special requirements for incompatible wastes; and [sic]."

IV. Reason/Rationale for Proposed Change: The phrase proposed to be deleted suggests that there is something further CSSI must do to store containerized waste properly in addition to the procedures submitted with its permit application, included as Attachment 12 to the permit. The condition thus improperly expands CSSI's obligations for storing containerized waste without specifying what must be done beyond what CSSI has proposed to do. CSSI also incorporates its comment on condition II.A.(1).

\* \* \*

III.B. Inspections.

I. Condition: III.B.

II. Issue: This condition erroneously requires all labels on containers to face toward the aisle.

III. Proposed Change: Delete the phrase "from the aisle," and revise the condition to read:

"The Permittee shall store all containers of RCRA waste on a single tier (i.e., no stacking), with labels visible for inspection, at all container storage units, except that containers that are suitable for stacking (e.g., barrel boxes or crates) may be stacked to a reasonable level, (not to exceed 5 feet in height), provided the stack is stable and there is no apparent hazard of such containers tipping or falling and provided that inspection of such containers by CSSI is not inhibited."

IV. Reason/Rationale for Proposed Change: It would be very burdensome and costly to orient labels on containers toward the

aisle. Further, it is not required by the RCRA rules including 40 CFR § 264.173 (providing for management of containers) and 40 CFR §264.174 (providing for inspection of containers). The labels need to be visible for inspection not necessarily visible from the aisle. There appears to be no reason for imposing this condition (which CSSI does not want or believe is necessary for inspections) other than perhaps for the convenience of inspections by the agencies.

\* \* \*

III.C. Aisle Space.

I. Condition: III.C.

II. Issue: This condition erroneously establishes certain minimum aisle spaces that must be met at all times in the container storage areas.

III. Proposed Change: Delete the phrase "a minimum of" from the first sentence of this condition and revise the sentence to read:

"The Permittee shall maintain approximately 5 feet of aisle space between containers in storage units S-1, S-4, S-8A, and S-8B and approximately 2.5 feet of aisle space in the Main Container Storage Unit and the Reactive Solids Container Storage Unit.

IV. Reason/Rationale for Proposed Change: 40 CFR § 264.35 does not establish a minimum aisle space that must be met at all times for container storage areas. The rule only requires that there be sufficient aisle space "to allow the unobstructed movement of personnel, fire protection equipment, spill control equipment, and decontamination equipment."

CSSI must meet this rule. The proposed change will ensure that the rule is met but add a real world recognition of the practicalities of operating a storage area. The condition as written, however, is unrealistic and would put CSSI in the position of measuring every aisle to ensure that it was exactly 2.5 feet or 5 feet wide. If an aisle in S-1, for example, were 4 feet and 11 inches wide, CSSI would be in violation of the permit.

\* \* \*

III.D. Containment.

I. Condition: III.D.(1)

II. Issue: This condition erroneously requires storage on pallets in S-1, S-4, S-8A and S-8B.

III. Proposed Change: Delete the words "S-1, S-4," from the first sentence in this condition so it reads:

"The Permittee shall store all containerized waste in storage units S-8A, and S-8B on pallets, or equivalent apparatus, so that containers do not come in contact with the soil during storage."

IV. Reason/Rationale for Proposed Change: Storage areas S-1 and S-4 are designed to prevent the containers from coming in contact with accumulated liquid in accordance with 40 CFR § 264.175(c). Previous detail drawings of those areas did not show the existing six-inch layer of gravel which serves that function. The drawings have been corrected and are attached to these comments as Exhibit 5. Pallets or other such devices are not necessary.

\* \* \*

I. Condition: III.D.(2)

II. Issue: This condition fails to state that storage of containers in S-1, S-4, S-8A and S-8B in accordance with the permit constitutes compliance with 40 CFR § 264.175.

III. Proposed Change: Revise this condition to read:

"Container storage in units S-1, S-4, S-8A, S-8B, the Main Container Storage Unit or the Reactive Solids Container Unit, in the manner specified in Attachment 12 shall constitute compliance with 40 CFR §264.175.

IV. Reason/Rationale for Proposed Change: Storage in S-1, S-4, S-8A and S-8B in the manner specified in this permit constitutes compliance with 40 CFR § 264.175. CSSI incorporates the Reason/Rationale from its comment on condition II.J.(7).

\* \* \*

III.F. Schedule of Compliance.

I. Title: III.F.

II. Issue: The title for this section erroneously implies that the storage of containerized wastes in CSSI's application is not in compliance with the RCRA rules.

III. Proposed Change: Revise the title to read:

"III.F. Schedule of Implementation."

IV. Reason/Rationale for Proposed Change: The agencies have not given any basis in recent inspections, inspection reports or in the Fact Sheet to show that the container storage proposed by CSSI in its application is not in compliance with the law. CSSI incorporates its comments on conditions III.D.(1) and III.D.(2) and the Reason/Rationale from its comment on condition II.J.(7).

\* \* \*

I. Condition: III.F.(1)

II. Issue: This condition erroneously prohibits CSSI from storing containers of solid waste in S-1 and S-4 after 180 days from the effective date of the permit.

III. Proposed Change: Revise this condition to read:

"Any RCRA wastes stored in containers after 180 calendar days from the effective date of this permit other than containerized solid waste stored in S-1 and S-4, shall be stored in either the Main Container Storage Unit or the Reactive Solids Container Storage Unit, in accordance with the operating procedures for these units which are specified in Attachment 12 of this permit."

IV. Reason/Rationale for Proposed Change: CSSI plans to continue to store containerized solid waste in S-1 and S-4 after 1988. CSSI incorporates its comments on conditions III.D.(1) and III.D.(2) and the Reason/Rationale from its comment on condition II.J.(7).

\* \* \*

I. Condition: III.F.(2)

II. Issue: This condition erroneously requires CSSI to remove containerized solid waste from S-1 and S-4 within 180 days after the effective date of the permit and to close S-1 and S-4 within 330 days.

III. Proposed Change: Delete the phrase "S-1, S-4" from this condition so it reads:

"Within 180 calendar days after the effective date of this permit, the Permittee shall remove all containerized wastes from storage areas S-8A, and S-8B and commence closure of these units. Closure must be completed within 330 calendar days after the effective date of this permit, in accordance with the schedule specified in Attachment 8 of this permit. The procedures for closure of these units shall be

in accordance with Attachment 8 of this permit and permit condition II.J."

IV. Reason/Rationale for Proposed Change: Units S-1 and S-4 are designed to store containerized solid waste safely. Continued use of these two units will allow a more cost effective Main Container Storage Unit to be built for containerized liquid waste. CSSI incorporates its comments on conditions III.D.(1) and III.D.(2) and the Reason/Rationale from its comment on condition II.J.(7).

\* \* \*

I. Condition: III.F.(3)

II. Issue: This condition erroneously prohibits storage of containerized solid waste after 180 days from the effective date of the permit, if the container storage buildings are not built.

III. Proposed Change: Revise the third sentence of this condition to read:

"If the Permittee elects to not construct the Main Container Storage Unit and/or the Reactive Solids Container Storage Unit, then storage of containerized waste other than containerized solid waste in S-1 and S-4 shall be prohibited after 180 calendar days from the effective date of this permit, except as provided by 40 CFR §262.34."

IV. Reason/Rationale for Proposed Change: Given recent changes to regulations and anticipated future changes, the expensive Main Container Storage Unit included in the permit application is not justified. CSSI has proposed to resolve this dilemma by constructing a new smaller Main Container Storage Unit and continuing to use Units S-1 and S-4 for the storage of containerized solid waste. The proposed change reflects this



decision. CSSI incorporates the Reason/Rationale from its comment on condition II.J.(7).

IV. TANK STORAGE AND TREATMENT

IV.B. Bulk Liquid Storage Facility.

I. Condition: IV.B.(2)

II. Issue: (1) This condition arbitrarily requires CSSI to install an activated carbon filtration system on the 3010 tanks when there is no regulatory requirement for the system. (2) This condition also fails to recognize that the 3010 tanks are 90-day tanks and erroneously requires CSSI to install an activated carbon filtration system on the 3010 tanks within 180 days after the effective date of the permit.

III. Proposed Change: (1) Delete this condition.

(2) In the alternative, if the agencies are able to demonstrate authority for imposing this condition, revise the first five sentences of this condition to read:

"If the Permittee uses the 3010 tanks to store or to treat hazardous waste in accordance with 40 CFR §262.34, the following condition does not apply:

The Permittee shall install an activated carbon filtration system to the vents of the 3010 tanks. A manifold system may be used to connect the vents from each of the tanks in order to treat vapors from all of the tanks with a single filter. The activated carbon filtration system shall be equivalent to either a Calgon VentSorb or Calgon High Flow VentSorb Canister system. The Permittee shall replace the activated carbon filtration system in accordance with manufacturer's recommendations or when analytical results indicate that the system has become saturated or otherwise ineffective. This filtration system shall be installed and fully operational within 180 calendar days after the effective date of this permit or within 180 calendar days after Permittee ceases to use the 3010 tanks to store or to treat hazardous waste in accordance with 40 CFR §262.34, whichever is later."

IV. Reason/Rationale for Proposed Change: (1) There are no regulations requiring an activated carbon filtration system for the 3010 tanks. The Fact Sheet (p. 44 of 91) admits this. The condition should be deleted.

(2) In the alternative, the condition should be revised because CSSI is operating and plans to continue operating the 3010 tanks as 90-day tanks under 40 CFR § 262.34 for leachate management. Such use will not generate organic vapor emissions. The proposed change showing that the condition does not apply to 90-day tanks should be adopted.

\* \* \*

I. Condition: IV.B.(3)

II. Issue: (1) This condition fails to recognize that the 3010 tanks are 90-day tanks and erroneously specifies RCRA requirements for the tanks. (2) It also erroneously implies that CSSI must determine that each waste is compatible with tank materials before it is stored in the tank, based on a compatibility assessment as specified in the WAP.

III. Proposed Change: Delete the phrase "is incompatible with the tank materials or" and revise this condition to read:

"If the Permittee uses the 3010 tanks to store or to treat hazardous waste in accordance with 40 CFR §262.34, the following condition does not apply:

The Permittee may store any of the RCRA wastes, in liquid form, listed on the Part A permit application, included as Attachment 11 of this permit, except that ignitable wastes, reactive wastes, wastes listed in Attachment 13, Table D.3-3 with an M, U, or N rating, and the wastes listed in Attachment 11, Table 1-2 shall not be stored at the Bulk Liquid Storage

Facility. Additionally, if the waste is incompatible with any waste already in a tank, based on compatibility assessment as specified in the Waste Analysis Plan, Attachment 2 of this permit, such waste shall not be stored in that tank."

IV. Reason/Rationale for Proposed Change: (1) CSSI is operating and plans to continue operating the 3010 tanks as 90-day tanks under 40 CFR § 262.34. This condition should not apply to the 3010 tanks until they are no longer used as 90-day tanks.

(2) The tank materials/waste compatibility requirement is addressed during the design and engineering of the tank with manufacturer/supplier data and general compatibility information. Because tank materials/waste compatibility has been addressed in design, the only operational concerns relate to compatibility of new waste with existing waste in the tank. The WAP incorporates the Liquid Waste Compatibility Test to assure and to document compatibility. The WAP does not contain a compatibility test for tank materials because no test is needed.

\* \* \*

I. Condition: IV.B.(4)

II. Issue: This condition fails to recognize that the 3010 tanks are 90-day tanks and erroneously requires RCRA operations for the tanks.

III. Proposed Change: Delete the phrase "and in accordance with permit condition II.A.(1)" and revise this condition to read:

"If the Permittee uses the 3010 tanks to store or to treat hazardous waste in accordance with 40 CFR §262.34, the following condition does not apply:

The Permittee shall operate the Bulk Liquid Storage Facility in accordance with the

procedures specified in Attachment 13. Additionally, the Permittee shall comply with all applicable sections of Attachment 2 (Waste Analysis Plan), Attachment 4 (Inspection Plan), and Attachment 7 (Contingency Plan)."

IV. Reason/Rationale for Proposed Change: CSSI incorporates the Reason/Rationale from its comment on condition IV.B.(3).

The phrase proposed to be deleted suggests that there is something further CSSI must do to operate the 3010 tanks properly in addition to the procedures submitted with its permit application, included as Attachment 13 to the permit. The condition thus improperly expands CSSI's obligations for operating the 3010 tanks without specifying what must be done beyond what CSSI has proposed to do. CSSI also incorporates its comment on condition II.A.(1).

\* \* \*

I. Condition: IV.B.(5)

II. Issue: This condition fails to recognize that the 3010 tanks are 90-day tanks and erroneously requires a specific freeboard.

III. Proposed Change: Revise this condition to read:

"If the Permittee uses the 3010 tanks to store or to treat hazardous waste in accordance with 40 CFR §263.34, the following condition does not apply:

The Permittee shall maintain at least one foot of freeboard (headspace) in the Bulk Liquid Storage Facility tanks at all times, but in no case shall liquid be allowed to rise above the top of the level indicator which is shown as Item 3 in Attachment 13 Figure D.3-3."

IV. Reason/Rationale for Proposed Change: CSSI incorporates

the Reason/Rationale from its comment on condition IV.B.(3).  
There is no freeboard requirement for 90-day tanks.

\* \* \*

IV.C. Laboratory Holding Tank.

I. Condition: IV.C.(1)

II. Issue: (1) This condition fails to recognize that the Laboratory Holding Tank is a 90-day tank and erroneously specifies conditions that are not applicable to the tank. (2) The condition also arbitrarily requires changing of electrical switches and devices for the tank.

III. Proposed Change: Delete the exception that has been created to Attachment 13 in this condition and revise the condition to read:

"If the Permittee uses the Laboratory Holding Tank to store or to treat hazardous waste in accordance with 40 CFR §262.34, the following condition does not apply:

The Laboratory Holding Tank shall consist of one existing underground 1,050 gallon polyethylene tank, designated as T-L-1 in "Bulk Liquid Storage", included as Attachment 13 of this permit. Reference to the Laboratory Holding Tank shall also include all associated piping, appurtenances, and the proposed secondary containment system. The design of the Laboratory Holding Tank shall be as described in Attachment 13 and as specified in Figures D.3-4 and D.3-5 of Attachment 13."

IV. Reason/Rationale for Proposed Change: (1) CSSI is operating and plans to continue operating the Laboratory Holding Tank as a 90-day tank under 40 CFR § 262.34. This condition should not apply to the Laboratory Holding Tank until it is no longer used as a 90-day tank.

(2) The requirement for non-sparking electrical switches and devices is poorly defined and unclear. In addition, it is based on a false assumption that wastes in the tank are ignitable or explosive. The wastes in this tank are very dilute and do not represent an explosive threat. The existing equipment for the lab tank has operated without incident since 1982. Further, condition IV.C.(2) restricts the type of wastes that can be placed in the tank. There is no good reason to substitute different equipment.

\* \* \*

I. Condition: IV.C.(2)

II. Issue: (1) This condition fails to recognize that the Laboratory Holding Tank is a 90-day tank and erroneously specifies RCRA requirements for the tank. (2) It also erroneously implies that CSSI must determine that each waste is compatible with tank materials before it is stored in the tank, based on a compatibility assessment as specified in the WAP.

III. Proposed Change: Delete the phrase "the tank materials or" revise the condition to read:

"If the Permittee uses the Laboratory Holding Tank to store or to treat hazardous waste in accordance with 40 CFR §262.34, the following condition does not apply:

The Permittee may store any of the RCRA wastes, in liquid form, listed on the Part A permit application, included as Attachment 11 of this permit, except that strong oxidizing agents, off-specification or outdated reagents, and wastes listed in Attachment 11, Table 1-2 shall not be stored in the Laboratory Holding Tank. Additionally, if a laboratory waste is incompatible with other laboratory waste in the tank, based on compatibility assessment as specified in the Waste Analysis Plan, Attachment 2 of this

permit, such waste shall not be stored in the Laboratory Holding Tank."

IV. Reason/Rationale for Proposed Change: (1) CSSI is operating and plans to continue operating the Laboratory Holding Tank as a 90-day tank under 40 CFR § 262.34. This condition should not apply to the Laboratory Holding Tank until it is no longer used as a 90-day tank.

(2) The tank materials/waste compatibility requirement is addressed during the design and engineering of the tank with manufacturer/supplier data and general compatibility information. Because tank materials/waste compatibility has been addressed in design, the only operational concerns relate to compatibility of new waste with existing wastes in the tank. The WAP incorporates the Liquid Waste Compatibility Test to assure and to document compatibility. The WAP does not contain a compatibility test for tank materials because no test is needed.

\* \* \*

I. Condition: IV.C.(3)

II. Issue: This condition fails to recognize that the Laboratory Holding Tank is a 90-day tank and erroneously specifies certain operations for the tank.

III. Proposed Change: Delete the phrase "and in accordance with permit condition II.A.(1)" and revise the condition to read:

"If the Permittee uses the Laboratory Holding Tank to store or to treat hazardous waste in accordance with 40 CFR §262.34, the following condition does not apply:

The Permittee shall operate the Laboratory Holding Tank in accordance with the procedures specified in Attachment 13. Additionally, the Permittee shall comply with all applicable



sections of Attachment 2 (Waste Analysis Plan), Attachment 4 (Inspection Plan), and Attachment 7 (Contingency Plan)."

IV. Reason/Rationale for Proposed Change: CSSI incorporates its comment on condition II.A.(1) and the Reason/Rationale from its comment on condition IV.C.(2).

\* \* \*

I. Condition: IV.C.(4)

II. Issue: This condition fails to recognize that the Laboratory Holding Tank is a 90-day tank and erroneously specifies certain freeboard requirements.

III. Proposed Change: Revise the condition to read:

"If the Permittee uses the Laboratory Holding Tank to store or to treat hazardous waste in accordance with 40 CFR §262.34, the following condition does not apply:

The Permittee shall maintain at least six inches of freeboard (headspace) in the Laboratory Holding Tank at all times. This distance (six inches) shall be measured downward from the bottom of the overflow drain pipe, which is indicated as Item 2 in Attachment 13, Figure D.3-5. The Permittee shall set the liquid level switch and alarm system to be activated so that the specified freeboard (headspace) limit is not exceeded."

IV. Reason/Rationale for Proposed Change: CSSI incorporates the Reason/Rationale from its comment on condition IV.C.(2). There is no freeboard requirement for a 90-day tank.

\* \* \*

I. Condition: IV.C.(5)

II. Issue: This condition fails to recognize that the Laboratory Holding Tank is a 90-day tank and erroneously requires

CSSI to construct a secondary containment structure within 180 days after the effective date of the permit.

III. Proposed Change: Delete the phrase "180 calendar days after the effective date of this permit" and revise the condition to read:

"If the Permittee uses the Laboratory Holding Tank to store or to treat hazardous waste in accordance with 40 CFR §262.34, the following condition does not apply:

The Permittee shall construct the secondary containment structure for the Laboratory Holding Tank, as required by permit condition IV.C.(1). This structure shall be installed and fully operational within the schedule required by 40 CFR Part 264 Subpart J. Upon completion of construction, the as-built drawings, a narrative report and the construction certification document shall be submitted to the Director and the Administrator in accordance with permit Condition II.A.(2). Note: Due to the nature of this construction modification (adding secondary containment to an existing tank), the Permittee shall not be required to comply with permit condition I.P. and, thereby, this tank may be placed back into service immediately upon completion of construction.

IV. Reason/Rationale for Proposed Change: CSSI incorporates the Reason/Rationale from its comment on condition IV.C.(2).

The schedule for construction of a secondary containment structure will be that required by 40 CFR Part 264 Subpart J, whether a 90-day tank or a fully regulated tank. The July 14, 1986 modifications to 40 CFR Part 264 Subpart J specify a schedule for inspection and modification of tank systems such as the lab tank while it qualifies as a 90-day tank. These regulations provide a sound approach for phasing in the changes associated with the secondary containment design for the lab tank.

Furthermore, if CSSI changes the use of the tank so that it becomes subject to the Part B requirements, the schedules in the July 14, 1986 amendments to the regulations would also apply under 40 CFR Part 264 Subpart J.

\* \* \*

IV.D. Stabilization Unit Tanks.

I. Condition: IV.D.(2)

II. Issue: This condition erroneously implies that CSSI must determine that each waste is compatible with tank materials before it is stored in the tank, based on a compatibility assessment as specified in the WAP.

III. Proposed Change: Delete the phrase "incompatible with the tank materials," in the second sentence of this condition so it reads:

"Additionally if any waste is water reactive, or incompatible with other wastes already in the tank, based on the compatibility assessment as specified in the Waste Analysis Plan, Attachment 2 of this permit, such waste shall not be placed in that tank."

IV. Reason/Rationale for Proposed Change: The tank materials/waste compatibility requirement is addressed during the design and engineering of the tank with manufacturer/supplier data and general compatibility information. Because tank materials/waste compatibility has been addressed in design, the only operational concerns relate to compatibility of new waste with existing wastes in the tank. The WAP incorporates the Liquid Waste Compatibility Test to assure and to document compatibility. The WAP does not contain a compatibility test for tank materials because no test is needed.

\* \* \*

I. Condition: IV.D.(3)

II. Issue: This condition suggests that there are additional requirements CSSI must meet for the Stabilization Unit tanks beyond the procedures submitted with its permit application (Attachment 14) and Attachments 2, 4 and 7 as amended by the permit.

III. Proposed Change: Delete the phrase "and in accordance with permit condition II.A.(1)" so this condition reads:

"The Permittee shall operate the Stabilization Unit tanks in accordance with the procedures specified in Attachment 14. Additionally, the Permittee shall comply with all applicable sections of Attachment 2 (Waste Analysis Plan), Attachment 4 (Inspection Plan), and Attachment 7 (Contingency Plan).

IV. Reason/Rationale for Proposed Change: The phrase proposed to be deleted suggests that there are some other requirements CSSI must meet for its Stabilization Unit Tanks in addition to those procedures specified in its permit application. The condition thus improperly expands CSSI's obligations without specifying what must be done beyond what CSSI has proposed to do. CSSI also incorporates its comment on condition II.A.(1).

\* \* \*

I. Condition: IV.D.(4)

II. Issue: This condition erroneously requires at least two feet of freeboard for the Stabilization Unit Tanks.

III. Proposed Change: Delete the phrase "two feet" and revise the condition to read:

"The Permittee shall maintain at least six

inches of freeboard in the Stabilization Unit Tanks at all times."

IV. Reason/Rationale for Proposed Change: A freeboard requirement of two feet is excessive. No fixed amount of freeboard is required by the RCRA rules. The freeboard requirement in 40 CFR § 264.192(2) for uncovered tanks requires "sufficient freeboard to prevent overtopping by wave or wind action or by precipitation."

A six-inch freeboard will more than adequately prevent overtopping. The key to preventing overtopping during operation is careful operators. This factor is more critical than the amount of freeboard. The nature of the mixing process with a six-inch freeboard will not represent an opportunity for any waste to be spilled outside the bins. Also, in the stabilizing process by the time freeboard is approached, the tank contents will be for the most part solid. A six-inch freeboard is also more economic because each foot of freeboard required represents approximately 4,500 gallons of useable space lost.

\* \* \*

I. Condition: IV.D.(5)(a)

II. Issue: This condition erroneously prohibits CSSI from receiving waste that must be stabilized but that is not received for the purpose of stabilization.

III. Proposed Change: Revise the second sentence of this condition to read:

"The tanks shall be installed and fully operational before any off-site waste accepted for the purpose of stabilization at this facility is stabilized at the facility."

IV. Reason/Rationale for Proposed Change: This condition is so broad that it could be interpreted to exclude stabilization of all waste including containerized and bulk solid waste which is received containing unmanifested free liquids. This situation occurs occasionally and is not a situation that CSSI can control. These types of waste should be stabilized at the facility when appropriate using the containers in which they arrived. For example, a truck with a bulk solid waste containing free unmanifested liquid should be stabilized as soon as the liquid is discovered to prevent any liquid from leaking from the truck. This is the safest way to deal with such waste and has historically been recognized by the agencies as acceptable practice.

\* \* \*

I. Condition: IV.D.(5)(b)

II. Issue: This condition fails to provide explicitly that CSSI may stabilize containerized and bulk solid wastes which are not received for the purpose of stabilization but which contain unmanifested free liquids.

III. Proposed Change: Add the following new sentence after the last sentence of this condition:

"The Permittee may, however, stabilize containerized solid waste and bulk solid waste containing unmanifested free liquids which is received at the facility provided that the waste was not accepted from an off-site source for the purpose of stabilization at this facility."

IV. Reason/Rationale for Proposed Change: This proposed change is consistent with CSSI's current operating practices and

is also consistent with the intent of the other provisions in the condition. To stabilize these wastes in the containers in which they arrive at the time they arrive is the safest environmental practice. For example, if a bulk solids load arrives at the facility and is found to contain unmanifested free liquid, CSSI must either send the load back to the generator with the risk of spilling occurring on the return trip or stabilize the load at the facility. Further, CSSI has determined that it is not presently economic to construct and to operate the Stabilization Unit Tanks in Attachment 14. Recent history has shown that there is very little demand at this time by generators for CSSI to provide stabilization services.

\* \* \*

#### IV.E. Reactive Solids Hydrolysis Unit Tanks.

I. Condition: IV.E.(2)

II. Issue: This condition erroneously implies that CSSI must determine that each waste is compatible with tank materials before it is stored in the tanks, based on a compatibility assessment as specified in the WAP.

III. Proposed Change: Delete the word "materials" in the second sentence of this condition and revise the second sentence to read:

"Additionally, if any waste, or the reaction product or residue of the treatment of such waste, is incompatible with other wastes already in the tank, based on the compatibility assessment as specified in the Waste Analysis Plan, Attachment 2 of this permit, such waste shall not be placed in that tank."

IV. Reason/Rationale for Proposed Change: The tank materials/waste compatibility requirement is addressed during the design and engineering of the tank with manufacturer/supplier data and general compatibility information. Because tank materials/waste compatibility has been addressed in design, the only operational concerns relate to compatibility of new waste with existing wastes in the tank. The WAP incorporates the Liquid Waste Compatibility Test to assure and to document compatibility. The WAP does not contain a compatibility test for tank materials because no test is needed.

\* \* \*

I. Condition: IV.E.(3)

II. Issue: This condition suggests that there are additional requirements CSSI must meet for the Reactive Solids Hydrolysis Unit Tanks beyond the procedures submitted with its permit application (Attachment 15) and Attachments 2, 4 and 7 as amended by the permit.

III. Proposed Change: Delete the phrase "and in accordance with permit condition II.A.(1) and 40 CFR § 264.17" so this condition reads:

"The Permittee shall operate the Reactive Solids Hydrolysis tanks in accordance with the procedures specified in Attachment 15. Additionally, the Permittee shall comply with all applicable sections of Attachment 2 (Waste Analysis Plan), Attachment 4 (Inspection Plan), and Attachment 7 (Contingency Plan).

IV. Reason/Rationale for Proposed Change: The phrase proposed to be deleted suggests that there are some other requirements CSSI must meet for its Reactive Solids Hydrolysis



Unit Tanks in addition to those procedures specified in its permit application. The condition thus improperly expands CSSI's obligations without specifying what must be done beyond what CSSI has proposed to do. CSSI also incorporates its comment on condition II.A.(1).

\* \* \*

IV.F. Truck Wash Tank System.

I. Condition: IV.F.(2)

II. Issue: This condition erroneously limits use of the Truck Wash Tank System to the contaminated rinse water from washing the exterior of empty vehicles.

III. Proposed Change: Revise the first sentence of the condition and add a second sentence after the first sentence so the first two sentences of the condition read:

"The liquid waste placed in the Truck Wash Tank System shall consist of only the contaminated rinse water which accumulates in the process of washing: (a) the exterior of empty vehicles or other equipment in the truck washing facility or (b) the interior of emptied containers including roll off boxes, returnable DOT approved containers and end dumps. In addition, bulk waste loads may be temporarily stationed in the Truck Wash Tank System if they are leaking on arrival at the facility in order to avoid releases to the environment."

IV. Reason/Rationale for Proposed Change: Nothing in 40 CFR Part 264 Subpart J precludes the temporary use shown in the proposed change. The Truck Wash Tank System provides a safe, effective way to prevent leaking bulk waste loads from continued releases to the environment after they arrive at the facility and before other remedial measures can be taken. Such a temporary use

should be an approved use of the Truck Wash Tank System. It would be used only when other methods would not contain the leaking material as quickly or effectively.

\* \* \*

I. Condition: IV.F.(3)

II. Issue: (1) This condition fails to recognize that the Truck Wash Tank System may be used as a 90-day tank and erroneously specifies RCRA requirements for the system. (2) This condition also suggests that there are additional requirements CSSI must meet for the Truck Wash Tank System beyond the procedures submitted with its permit application (Attachment 16) and Attachments 2, 4 and 7, as amended by the permit.

III. Proposed Change: Delete the phrase "and in accordance with permit condition II.A.(1)" and revise this condition to read:

"If the Permittee uses the Truck Wash Tank System to store or to treat hazardous waste in accordance with 40 CFR §262.34, the following condition does not apply:

The Permittee shall operate the Truck Wash Tank System, including the associated sumps and channel, in accordance with the procedures specified in Attachment 16. Additionally, the Permittee shall comply with all applicable sections of Attachment 2 (Waste Analysis Plan), Attachment 4 (Inspection Plan), and Attachment 7 (Contingency Plan)."

IV. Reason/Rationale for Proposed Change: (1) CSSI may operate the Truck Wash Tank System as a 90-day tank under 40 CFR § 262.34 depending on the uses the permit allows for the System. This condition should not apply to the Truck Wash Tank System if it is used as a 90-day tank.

(2) The phrase proposed to be deleted suggests that there is something further CSSI must do to use its Truck Wash Tank System properly in addition to the procedures submitted with its permit application. The condition thus unreasonably expands CSSI's obligations for the Truck Wash Tank System without specifying what must be done beyond what CSSI has proposed to do. CSSI also incorporates its comment on condition II.A.(1).

\* \* \*

I. Condition: IV.F.(4)

II. Issue: This condition fails to recognize that the Truck Wash Tank System may be used as a 90-day tank and erroneously requires a specific freeboard.

III. Proposed Change: Revise this condition to read:

"If the Permittee uses the Truck Wash Tank System to store or to treat hazardous waste in accordance with 40 CFR §262.34, the following condition does not apply:

The Permittee shall maintain at least one foot of freeboard in the sludge settling tank and collection tank. The Permittee shall set the high level alarm system to be activated so that the specified freeboard limit is not exceeded."

IV. Reason/Rationale for Proposed Change: CSSI may operate the Truck Wash Tank System as a 90-day tank under 40 CFR § 262.34. This condition should not apply to the Truck Wash Tank System if it is used as a 90-day tank. Additionally, the RCRA rules do not have a freeboard requirement for 90-day tanks.

\* \* \*

I. Condition: IV.F.(6)

II. Issue: This condition fails to recognize that the Truck Wash Tank System may be used as a 90-day tank and erroneously specifies that CSSI must construct the secondary containment structures within 180 days after the effective date of the permit.

III. Proposed Change: Delete the phrase "180 calendar days after the effective date of this permit" in the second sentence of this condition and revise this condition to read:

"If the Permittee uses the Truck Wash Tank System to store or to treat hazardous waste in accordance with 40 CFR §262.34, the following condition does not apply:

The Permittee shall construct the secondary containment structures and monitoring devices for the Truck Wash Tank System, including the associated sumps, and the channel, as required by permit Condition IV.F.(1). This structure shall be installed and fully operational within the schedule required by 40 CFR Part 264 Subpart J. Upon completion of construction, the as-built drawings, a narrative report and the construction certification document shall be submitted to the Director and the Administrator in accordance with permit Condition II.A.(2). Note: Due to the nature of this construction modification, (adding secondary containment to an existing tank system), the Permittee shall not be required to comply with permit Condition I.P. and, thereby, this tank system may be placed back into service immediately upon completion of construction.

IV. Reason/Rationale for Proposed Change: CSSI incorporates the Reason/Rationale from its comment on condition IV.F.(4).

The schedule for construction of secondary containment structures will be that required by 40 CFR Part 264 Subpart J, whether a 90-day tank or a fully regulated tank. Under the 90-day tank requirements, the Truck Wash Tank System is subject to the July 14, 1987 amendments to 40 CFR Part 264 Subpart J. Those

rules set out an appropriate schedule for installation of secondary containment for structures such as the truck wash. The tests required by that rule, when final, will ensure that the truck wash will be operated safely and properly. If CSSI finds it is appropriate to use the Truck Wash Tank System as a regulated unit under the permit, CSSI will be required to install the secondary containment structures which have been designed for the system in accordance with 40 CFR Part 264 Subpart J.

V. SURFACE IMPOUNDMENT STORAGE AND TREATMENT

V.A. Evaporation Impoundments

I. Condition: V.A.(3)

II. Issue: This condition requires CSSI to demonstrate that a waste is compatible with the impoundment liner system, based on a compatibility assessment as specified in the Waste Analysis Plan.

III. Proposed Change: Delete this condition and replace it with the following:

"If any waste, or the product or residue of the treatment of such waste, is incompatible with wastes already in impoundment, based on the compatibility assessment as specified in the Waste Analysis Plan, Attachment 2 of this permit, such waste shall not be placed into the evaporation impoundments."

IV. Reason/Rationale for Proposed Change: The liner/waste compatibility requirements of 40 CFR 264.301(a)(1) are met either by performing liner/leachate Method 9090 Compatibility Tests or submitting appropriate historical or manufacturers' data that demonstrates that there is no chemical incompatibility between the waste and the membrane.

CSSI has performed actual Method 9090 Compatibility testing with representative wastes and liner material without any indication of deterioration. In addition, CSSI and Chemical Waste Management, Inc. (CWM) have performed numerous liner/leachate Method 9090 Compatibility Tests on High Density Polyethylene (HDPE) geomembranes. The results of this testing indicate no evidence of significant geomembrane deterioration when exposed to waste and leachate. This testing program adequately addresses all

site specific compatibility considerations for CSSI. The CSSI/CWM Method 9090 test program was performed under a "worst case" scenario with HDPE material that met all applicable CSSI/CWM specifications.

CSSI has also addressed compatibility of other components in the liner system by including manufacturer/supplier data to help demonstrate compatibility because of a lack of standard or acceptable test protocol in this area.

Because the compatibility requirements of 40 CFR § 264.221(a)(1) have been adequately addressed in the permit application, and because the only operational concern relates to the compatibility of new waste with existing waste, the WAP incorporates the Liquid Waste Compatibility Test to assure and document compatibility. This correction is reflected in the CSSI proposed change which is patterned after the language in condition V.B.(2).

\* \* \*

I. Condition: V.A.(4)(a)

II. Issue: This condition requires CSSI to construct and to test the soil liner for any surface impoundment using a test fill built in accordance with procedures contained in the EPA's publication, "Construction Quality Assurance Guidance," (EPA 530-SW-86-031, OSWER Policy Directive No. 9472.003).

III. Proposed Change: Delete this condition and replace it with the following:

"Prior to construction of a soil liner for a surface impoundment, a test fill using materials characterized as the same as those used in the new surface impoundment shall be

required. The Permittee shall construct and test in accordance with procedures contained in the Chemical Waste Management, Inc. (CWM), 'Quality Assurance Manual For The Installation of the Soil Components of Lining and Final Cover Systems,' as modified with the site specific addendum, latest revisions."

IV. Reason/Rationale for Proposed Change: CWM has developed, fostered, and implemented significant advances in the technology of surface impoundment design and construction quality assurance (CQA) programs. The Test Fill Program contained in the CWM "Quality Assurance Manual For The Installation of the Soil Components of Lining and Final Cover Systems," exceeds the construction and testing requirements for the test fill program referenced in the proposed EPA document. CSSI/CWM has successfully developed numerous test fills to date using this program. CSSI believes its Test Fill Program provides more useful and relevant data and information than that proposed by EPA and that CSSI should be allowed to use its already tried and proven methodologies related to CQA activities.

\* \* \*

I. Condition: V.A.(7)(b)

II. Issue: This condition gives the agencies arbitrarily broad discretion to change freeboard limits.

III. Proposed Change: Delete the phrase "a potential for" from the first sentence of this condition so it reads:

"The Director and the Administrator reserve the right to increase the amount of freeboard at any impoundment if overtopping is present."

IV. Reason/Rationale for Proposed Change: CSSI designs, constructs and maintains its impoundments to comply with 40



CFR § 264.221(g). CSSI as the owner and operator of the facility has the obligation to operate its impoundments in a manner that will prevent overtopping. CSSI takes this responsibility seriously.

Impoundment capacity is a critical factor in CSSI's operations especially during certain conditions, such as times of heavy precipitation and large volumes of waste receipts. If changes are required, they should be undertaken only after a detailed evaluation or if overtopping occurs. Changing freeboard because of a potential for overtopping requires too subjective a determination to use for such an important factor in CSSI's operations.

\* \* \*

I. Condition: V.A.(11)(a)

II. Issue: This condition arbitrarily requires weekly monitoring for the presence and volume of liquids in the leachate detection system during the post-closure period.

III. Proposed Change: Delete the phrase "and at least weekly during the post-closure period" from this condition so it reads:

"The Permittee shall monitor for and record on a daily basis the presence and volume of liquids in the leachate detention collection and removal system sumps during the active life of the units."

IV. Reason/Rationale for Proposed Change: CSSI does not intend to close double-lined surface impoundments as landfills. All double-lined surface impoundments will be clean closed, because with the inclusion of leak detection requirements there will be no potential for migration of hazardous constituents from

the unit during the active life of the unit. Therefore, there will be no post-closure care period required for these units. Accordingly, CSSI is requesting that the post-closure monitoring requirement be removed as a surface impoundment monitoring requirement.

\* \* \*

I. Condition: V.A.(11)(b)

II. Issue: This condition arbitrarily requires weekly monitoring of leak detection systems during the post-closure period to determine if the Action Leakage Rate has been exceeded.

III. Proposed Change: Delete the phrase "and the weekly monitoring data during the post-closure period on a quarterly basis" so this condition reads:

"The Permittee shall analyze the daily monitoring data during the active life on a weekly basis to determine if the action leakage rate (ALR) is exceeded."

IV. Reason/Rationale for Proposed Change: CSSI does not intend to close double-lined surface impoundments as landfills. All double-lined surface impoundments will be clean closed, because with the inclusion of leak detection requirements there will be no potential for migration of hazardous constituents from the unit during the active life of the unit. Therefore, there will be no post-closure care period required for these units. Accordingly, CSSI is requesting that the post-closure monitoring requirement be removed as a surface impoundment monitoring requirement.

\* \* \*

I. Condition: V.A.(11)(c)

II. Issue: This condition requires that CSSI submit a report on leakage when a weekly increase in the average leakage rate of greater than 50 percent occurs in the leak detection system of a surface impoundment.

III. Proposed Change: Delete this condition and conditions V.A.(11)(c)(1), (2), (3) and (4).

In the alternative: Delete the number "50" and revise the condition to read:

"The Permittee shall, within 45 calendar days of detecting an increase of greater than 100 percent above the preceding weekly average leakage rate, for average leakage rates above 50 gallons per acre per day, submit to the Director and the Administrator a report on the leakage that includes the following information:"

IV. Reason/Rationale For Proposed Change: This condition is attempting to incorporate language from EPA's proposed Leak Detection rules that requires reporting in the event of a "significant change" in the leakage rates of a land disposal unit, even though the permittee involved has an approved Response Action Plan (RAP). This provision circumvents previously approved permit conditions and burdens CSSI with unnecessary reporting requirements.

First, the proposed condition does not make a distinction between 50 percent of 1 gallon per day or 100 gallons per day (gpad). This clearly is inappropriate, because it can be applied at any level (even less than 1 gpad) of leakage, without respect to the potential risk or impact. It would also require CSSI to generate a needless and useless report that would require the agencies' time to review.

An approved RAP adequately addresses significant increases in leakage rates when they occur. Actions required for any level of liquid found in the system are in the RAP. Indeed, the preamble to EPA's proposed rules suggests this. However, this condition appears to serve as an escape mechanism for the agencies in case they no longer like the RAP they have approved. This is an arbitrary action by the agencies, and this condition should be deleted.

However, if the agencies do not see fit to eliminate this condition they must be consistent in applying EPA's proposed Leak Detection rules and acknowledge that EPA's own proposed rules provide for a one time daily maximum leakage rate of 50 gpad. It would not be consistent with the proposed rules to implement any "significant change" requirement below that already provided as a maximum.

In addition, CSSI believes that significant should be defined as 100 percent, to assure an increase in potential risk that would warrant a report on change in existing and previously approved permit conditions.

\* \* \*

I. Condition: V.A.(11)(d)

II. Issue: This condition requires CSSI to specify its proposed "course of action" with the notification to the agencies that the action leakage rate (ALR) has been exceeded.

III. Proposed Change: Delete the phrase "shall specify its proposed course of action" from this condition and revise it to read:

"In the event that leakage is found to exceed the action leakage rate (ALR), the Permittee shall notify the Director and the Administrator, in writing, within seven calendar days of the date the ALR was exceeded and indicate that the Response Action Plan (RAP) will be implemented."

IV. Reason/Rationale For Proposed Change: The "proposed course of action" required with the notification is redundant and unnecessary because CSSI's Response Action Plan (RAP) details specific steps that will be taken once the ALR is exceeded. There thus is no need for specifying any additional course of action in the notification. The action that will be taken is the action required by the RAP.

\* \* \*

V.B. Reactive Solids Hydrolysis Impoundment.

I. Condition: V.B.(2)

II. Issue: This condition requires CSSI to demonstrate that a waste is compatible with the Impoundment liner system, based on the compatibility assessment as specified in the Waste Analysis Plan.

III. Proposed Change: Delete the phrase "liner system materials" from the second sentence of this condition and revise it to read:

"Additionally, if any waste, or the reaction product or residue of the treatment of such waste, is incompatible with wastes already in the impoundment, based on the compatibility assessment as specified in the Waste Analysis Plan, Attachment 2 of this permit, such waste shall not be placed in unit P-14."

IV. Reason/Rationale For Proposed Change: The liner/waste compatibility requirements of 40 CFR § 264.301(a)(1) are met

either by performing liner/leachate Method 9090 Compatibility Tests or submitting appropriate historical or manufacturers' data that demonstrates that there is no chemical incompatibility between the waste and the membrane.

CSSI has performed actual Method 9090 Compatibility testing with representative wastes and liner material without any indication of deterioration. In addition, CSSI and Chemical Waste Management, Inc. (CWM) have performed numerous liner/leachate Method 9090 Compatibility Tests on High Density Polyethylene (HDPE) geomembranes. The results of this testing indicate no evidence of significant geomembrane deterioration when exposed to waste and leachate. This testing program adequately addresses all site specific compatibility considerations for CSSI. The CSSI/CWM Method 9090 test program was performed under a "worst case" scenario with HDPE material that met all applicable CSSI/CWM specifications and the requirements of 40 CFR § 264.301(a)(1).

CSSI has also addressed compatibility of other components in the liner system by evaluating manufacturer/supplier data to help demonstrate compatibility because of a lack of standard or acceptable test protocol in this area.

Because the compatibility requirements of 40 CFR § 264.221(a)(1) have been adequately addressed in the permit application, and because the only operational concern relates to the compatibility of new waste with existing waste, the WAP incorporates the Liquid Waste Compatibility Test to assure and to document impoundment compatibility. This correction is reflected in the CSSI proposed change.

\* \* \*

I. Condition: V.B.(4)

II. Issue: This condition erroneously suggests that there are additional requirements CSSI must meet for operation of P-14 beyond the procedures in Attachment 15.

III. Proposed Change: Delete the phrase "and in accordance with permit condition II.A.(1) and 40 CFR § 264.17" in the first sentence of this condition and revise the first sentence to read:

"The Permittee shall operate unit P-14 in accordance with the procedures specified in Attachment 15 of this permit."

IV. Reason/Rationale for Proposed Change: The phrase proposed to be deleted suggests that there is something further CSSI must do to operate unit P-14 properly in addition to the procedures specified in the permit application in Attachment 15. Attachment 15 is designed to comply fully with the requirements of the RCRA rules. The condition thus improperly expands CSSI's obligations for operating unit P-14 without specifying what must be done beyond what CSSI has proposed to do. CSSI also incorporates its comment on condition II.A.(1).

\* \* \*

I. Condition: V.B.(5)(b)

II. Issue: This condition allows the agencies to change the freeboard limits for unit P-14 if a "potential" for overtopping is evident.

III. Proposed Change: Delete the words "if a potential for" from the first sentence of this condition so the first sentence reads:

"The Director and the Administrator reserve the right to increase the amount of freeboard required at P-14 if overtopping is evident."

IV. Reason/Rationale for Proposed Change: CSSI incorporates the Reason/Rationale from its comment on condition V.A.(7)(b).

\* \* \*

I. Condition: V.B.(6)

II. Issue: This condition requires CSSI to stabilize solids accumulated in P-14 before placing them in a landfill even though stabilization may not be necessary.

III. Proposed Change: Revise the first sentence in this condition to read:

"Prior to placement of any sludge or hydrolyzed solid material from unit P-14 into a landfill unit, the Permittee shall follow the stabilization and analyses procedures outlined in Attachments 2 and 14 where necessary to ensure that the sludge has been properly stabilized."

IV. Reason/Rationale for Proposed Change: Unit P-14 is used to hydrolyze metal reactive wastes. Once the reaction is complete, the material is a solid compound. Upon drying, that compound contains no liquid waste. In this form CSSI can landfill the waste without further additives or stabilization. CSSI will follow the procedures in the Waste Analysis, Attachment 2 to the permit, to test for free liquids before landfilling.



VI. LANDFILL DISPOSAL

VI. Existing Landfill Units L-7, L-8, L-9 and L-10.

I. Condition: VI.A.(2)

II. Issue: This condition erroneously requires compliance with condition I.Z and also fails to designate that condition as a state requirement only.

III. Proposed Change: Delete the phrase "and in accordance with permit condition I.Z." from this condition so it reads:

"The Permittee may dispose of any waste listed on the Part A permit application, included as Attachment 11 of this permit in the existing landfill units, except that the following restrictions on waste disposal shall apply:"

IV. Reason/Rationale for Proposed Change: CSSI incorporates the Reason/Rationale from its comment on condition I.Z.

\* \* \*

I. Condition: VI.A.(2)(c)(1)

II. Issue: This condition requires CSSI to conduct testing on stabilized material to ensure that the waste has been properly stabilized.

III. Proposed Change: Add the following sentence after the first sentence:

"CSSI will perform a pocket penetrometer test on each shipment of material stabilized off-site by the generator."

IV. Reason/Rationale for Proposed Change: CSSI is requesting various changes in condition II.C. of the draft permit. These changes, in part, require that the "Unconfined Compression Strength of Cohesive Soil" (ASTM Method D 2166-85) be removed as a permit condition because it is not a mandatory test for

demonstrating proper stabilization and is only suitable for demonstrating structural integrity of cohesive soils. In fact, CWM/CSSI believes that there are more appropriate tests to assure that proper stabilization has occurred.

In addition, as indicated in CSSI's comment on condition II.C.(1)(c), it is not feasible to achieve an unconfined compressive strength of 50 psi when stabilizing waste without excessive use of reagent. Further, EPA in its own guidance has noted that the UCST is only one method of determining if a waste has been properly stabilized and that there are others that may be used.

To check incoming waste shipments for adequate structural integrity, CSSI will perform a pocket Penetrometer test, in addition to its preacceptance testing to assure that the generated waste is properly stabilized. CSSI believes that its proposed methodology adequately assures that proper stabilization will occur.

\* \* \*

I. Condition: VI.A.(2)(c)(2)

II. Issue: This condition specifies that CSSI may as one of two options require generators to provide documentation that stabilized material passes the Unconfined Compressive Strength Test (UCST) as an alternative to complying with condition VI.A.(2)(c)(1) which requires CSSI to perform the UCST on all waste and that the mixture must achieve an unconfined compressive strength of 50 pounds per square inch (psi).

III. Proposed Change: Revise this condition as follows:

"As an alternative to the testing by the Permittee specified in permit condition VI.A.(2)(c)(1), the Permittee shall maintain documentation supplied by the generator (or another off-site treatment facility) that proper stabilization has been achieved. Documentation from the generator (or another off-site treatment facility) must contain a description of the stabilization procedures used, including a signed certification that the material passed the pocket penetrometer test. The Permittee shall maintain such documentation in the operation record for three years."

IV. Reason/Rationale for Proposed Change: As demonstrated in the comment regarding condition II.C.(1)(c), 50 psi cannot reasonably be achieved using the UCST without excessive use of reagents. Furthermore, as EPA itself has indicated, the UCST is not the only appropriate test for proper stabilization. Thus, generators will never be able to certify that proper stabilization has been achieved, just as CSSI will never be able to make such a demonstration. CSSI feels that obtaining documentation of the stabilization as well as a certification that testing comparable to that performed by CSSI in its WAP has been done, more than adequately addresses the agencies' concerns regarding verification of proper stabilization and is more than compliant with the statutory requirements prohibiting liquids from entering landfills.

Preliminary testing performed by CWM has indicated that waste properly stabilized by every other criteria will not meet the UCST requirement of 50 psi, without unnecessary use of reagents. CSSI reserves its right to supplement the record with additional data when it becomes available.

\* \* \*

I. Condition: VI.A.(4)

II. Issue: This condition erroneously suggests that there are additional requirements CSSI must meet for operation of units L-7, L-8, L-9, and L-10 beyond the procedures described in Attachment 23 of the permit.

III. Proposed Change: Delete the phrase "and in accordance with permit condition II.A.(1)" from the first sentence of this condition so it reads:

"The Permittee shall operate units L-7, L-8, L-9, and L-10 in accordance with the operating practices described in Attachment 23."

IV. Reason/Rationale for Proposed Change: The phrase proposed to be deleted suggests that there is something further CSSI must do to operate units L-7, L-8, L-9, and L-10 in addition to the procedures submitted with its permit application, included as Attachment 23 to the permit. Attachment 23 is designed to comply fully with the requirements of the RCRA rules. The condition thus improperly expands CSSI's obligations for operation of these units without specifying what must be done beyond what CSSI has proposed to do. CSSI also incorporates its comment on condition II.A.(1).

\* \* \*

I. Condition: VI.A.(5)

II. Issue: This condition requires that CSSI monitor the leachate collection system in unit L-7 weekly and remove, "to the extent practicable," any liquid found in the system within eight hours.

III. Proposed Change: Revise the first sentence of this condition, delete the number "8" from the third sentence and revise the condition so it reads:

"The Permittee shall inspect the leachate collection system in unit L-7 for the presence of liquid on a weekly basis when the landfill is in operation and until leachate is no longer detected for six consecutive months after closure. The results of inspections, including the amount of any liquid found, shall be entered in the operating record. If liquid is found in the leachate collection system, all pumpable quantities of the liquid shall be removed from the landfill unit, to the extent practicable, within 24 hours of the time such liquid is found."

IV. Reason/Rationale for Proposed Change: Under 40 CFR § 264.310(b)(2), there is no regulatory requirement for continuing to monitor a leachate collection system for a landfill in post-closure when leachate is no longer detected. The requirement to monitor should not be open-ended during post-closure.

There is no practical significance to removing all liquid within 8 hours. A 24-hour period would give CSSI an opportunity to plan and to mobilize the most effective way to remove the leachate. In addition, the condition does not define "to the extent practicable." It can only mean pumpable quantities. The condition should be revised as proposed to specify pumpable quantities.

\* \* \*

I. Condition: VI.A.(6)

II. Issue: This condition erroneously imposes on CSSI an absolute obligation to have all recording information necessary to locate all waste in Landfills L-7, L-8, L-9, and L-10 even though

some of that waste was disposed in the landfills when the facility was not owned and operated by CSSI.

III. Proposed Change: Add the following sentence after the third sentence of this condition:

"However, for waste disposed prior to CSSI's ownership and operation of the facility, CSSI shall use its best efforts to fulfill the requirements of this condition."

IV. Reason/Rationale for Proposed Change: CSSI has records of the three dimensional location of waste in Landfills L-7, L-8, L-9, and L-10. These records include waste disposed in the Landfills prior to CSSI's ownership and operation of the facility.

CSSI, however, cannot be held to an absolute obligation to ensure that the location records for waste prepared by the prior owner and operator of the facility are accurate for these Landfills. CSSI had no control over the preparation of those records. The proposed change recognizes this fact.

\* \* \*

VI.B. New and Proposed Landfill Units L-13 and L-12.

I. Condition: VI.B.(2)

II. Issue: This condition erroneously requires compliance with condition I.2 and also fails to designate that condition as a state requirement only.

III. Proposed Change: Delete the phrase "and in accordance with permit condition I.2." from this condition so it reads:

"The Permittee may dispose of any waste listed on the Part A permit application, included as Attachment 11 of this permit, in units L-13 or L-12, except that the following restrictions on waste disposal shall apply:"

IV. Reason/Rationale for Proposed Change: CSSI incorporates the Reason/Rationale from its comment on condition I.2.

\* \* \*

I. Condition: VI.B.(2)(c)(1)

II. Issue: This condition requires CSSI to conduct testing on stabilized material to ensure that the waste has been properly stabilized.

III. Proposed Change: Add the following sentence after the first sentence:

"CSSI will perform a pocket penetrometer test on each shipment of material stabilized off-site by the generator."

IV. Reason/Rationale for Proposed Change: CSSI is requesting various changes in condition II.C. of the draft permit. These changes, in part, require that the "Unconfined Compression Strength of Cohesive Soil" (ASTM Method D 2166-85) be removed as a permit condition because it is not a mandatory test for demonstrating proper stabilization. In fact, CWM/CSSI believes that there are more appropriate tests to assure that proper stabilization has occurred.

In addition, as indicated in CSSI's comment on condition II.C.(1)(c), it is not feasible to achieve an unconfined compressive strength of 50 psi when stabilizing waste without excessive use of reagent. Further, EPA in its own guidance has noted that the UCST is only one method and that there are others that may be used.

To check incoming waste shipments for adequate structural integrity, CSSI will perform a pocket Penetrometer

test, in addition to its preacceptance testing to assure that the generated waste is properly stabilized. CSSI believes that its proposed methodology adequately assures that proper stabilization will occur.

\* \* \*

I. Condition: VI.B.(2)(c)(2)

II. Issue: This condition specifies that CSSI may as one of two options require generators to provide documentation that stabilized material passes the Unconfined Compressive Strength Test (UCST) as an alternative to complying with condition VI.B.(2)(c)(1) which requires CSSI to perform the UCST on all waste and that the mixture must achieve an unconfined compressive strength of 50 pounds per square inch (psi).

III. Proposed Change: Revise this condition as follows:

"As an alternative to the testing by the Permittee specified in permit condition VI.B.(2)(c)(1), the Permittee shall maintain documentation supplied by the generator (or another off-site treatment facility) that proper stabilization has been achieved. Documentation from the generator (or another off-site treatment facility) must contain a description of the stabilization procedures used, including a signed certification that the material passed the pocket penetrometer test. The Permittee shall maintain such documentation in the operation record for three years."

IV. Reason/Rationale for Proposed Change: As demonstrated in CSSI's comment on condition II.C.(1)(c), 50 psi cannot be achieved using the UCST. Furthermore, as EPA itself has indicated, the UCST is not the only appropriate test for proper stabilization. Thus, generators will never be able to certify that proper stabilization has been achieved, just as CSSI will



never be able to make such a demonstration. CSSI feels that obtaining documentation of the stabilization as well as a certification that testing comparable to that performed by CSSI in its WAP has been done, more than adequately addresses the agencies' concerns regarding verification of proper stabilization and is more than compliant with the statutory requirements prohibiting liquids from entering landfills.

Preliminary testing performed by CWM has indicated that waste properly stabilized by every other criteria will not meet the UCST requirement of 50 psi without unnecessary use of reagents. CSSI reserves its right to supplement the record with additional data when it becomes available.

\* \* \*

I. Condition: VI.B.(3)(c)

II. Issue: This condition requires CSSI to construct and to test the soil liner for landfills L-13 and L-12 using a test fill built in accordance with procedures contained in the EPA's publication, "Construction Quality Assurance Guidance," (EPA 530-SW-86-031, OSWER Policy Directive No. 9472.003).

III. Proposed Change: Delete this condition and replace it with the following:

"Prior to construction of a soil liner for a landfill, a test fill using materials characterized as the same as those used in the new surface impoundment shall be required. The Permittee shall construct and test in accordance with procedures contained in the Chemical Waste Management, Inc. (CWM), 'Quality Assurance Manual For The Installation of the Soil Components of Lining and Final Cover Systems,' as modified with the site specific addendum, latest revisions."

IV. Reason/Rationale for Proposed Change: Chemical Waste Management, Inc. (CWM) has developed, fostered, and implemented significant advances in the technology of landfill design and construction quality assurance (CQA) programs. The Test Fill Program contained in the CWM "Quality Assurance Manual For The Installation of the Soil Components of Lining and Final Cover Systems," exceeds the construction and testing requirements for the test fill program referenced in the proposed EPA document. CSSI/CWM has successfully developed numerous test fills to date using this program. CSSI believes its Test Fill Program provides more useful and relevant data and information than that proposed by the agencies and that CSSI should be allowed to use its already tried and proven methodologies related to CQA activities.

\* \* \*

I. Condition: VI.B.(4)

II. Issue: This condition erroneously suggests that there are additional requirements CSSI must meet for operation of units L-13 and L-12 beyond the procedures described in Attachment 23 of the permit.

III. Proposed Change: Delete the phrase "and in accordance with permit condition II.A.(1)" from the first sentence of this condition so it reads:

"The Permittee shall operate units L-13 and L-12 in accordance with the operating practices described in Attachment 23."

IV. Reason/Rationale for Proposed Change: The phrase proposed to be deleted suggests that there is something further CSSI must do to operate units L-13 and L-12 in addition to the

procedures submitted with its permit application, included as Attachment 23 to the permit. Attachment 23 and the other referenced attachments are designed to comply fully with the requirements of the RCRA rules. The condition thus erroneously expands CSSI's obligations for operating of these units without specifying what must be done beyond what CSSI has proposed to do. CSSI also incorporates its comments on condition II.A.(1).

\* \* \*

I. Condition: VI.B.(6)

II. Issue: This condition requires CSSI to remove, "to the extent practicable" any liquid that is found in the leachate collection system of L-13 or L-12 within 8 hours after it is found.

III. Proposed Change: Delete this condition and replace it with the following:

"Liquid in the primary leachate collection system of unit L-13 or L-12 will not exceed 30cm (one foot) in depth over the primary liner after waste has been placed. (This does not include the area of the sump used to accumulate sufficient quantities of liquid for pumping). Liquid in the secondary leachate collection system of unit L-13 or L-12 will be removed, when pumpable quantities exist, to the extent practicable, within 24 hours after those quantities are found. The liquid from both the primary and secondary leachate collection system will be managed as a hazardous waste."

IV. Reason/Rationale For Proposed Change: The agencies do not have a basis in the rules for imposing this permit condition. 40 CFR § 264.301(a)(2) states that the leachate depth over the liner should not exceed 30 cm (one foot). The regulation does not require the operator to maintain levels less than that requirement

or to remove liquids at a level of less than one foot within a specified time frame. In addition, the proposed requirement does not define "to the extent practicable" to mean pumpable quantities, which can be the only workable definition of that expression. EPA has also acknowledged that the 30-cm liquid level requirement can not be applied to the sump area, because limitations in automated level control systems and minimum submergence requirements for pumps make the 30-cm requirement impractical to impose on the sump area.

This condition also makes no distinction between the primary and secondary leachate collection systems. Liquid quantities in these systems should be addressed separately as regulations for each will differ.

This condition should be changed to provide consistency with existing regulations and to address the practical limitation associated with implementing this condition.

\* \* \*

I. Condition: VI.B.(7)(a)

II. Issue: The permit condition erroneously requires weekly monitoring of the leak detection system in L-13, Cells 1 and 2, during the post-closure period to determine if the Action Leakage Rate has been exceeded.

III. Proposed Change: Delete this condition and replace it with the following:

"The Permittee shall analyze the daily monitoring data during the active life on a weekly basis and the monthly monitoring data during the post-closure period on a quarterly basis to determine if the action leakage rate (ALR) is exceeded. The Permittee shall

demonstrate that there have not been significant quantities of liquid in the leachate detection system for a three-month period prior to certifying closure. If an adequate demonstration can not be made, the Administrator and Director may modify the post-closure monitoring requirements."

IV. Reason/Rationale for Proposed Change: The requirement for weekly monitoring of the Leachate Detection System (LDS) sumps during the post-closure period is unnecessary. The long-term potential for leachate generation has been drastically reduced because of the ban on liquids in landfills, the increasing amount of waste pretreatment and stabilization prior to disposal, and the expanding restrictions on materials which can be landfilled. Leachate generation within the primary leachate collection system of a closed (capped) cell should be reduced to insignificant quantities, within a few years following closure. 40 CFR § 264.310(b)(2) requires only that during post-closure CSSI "operate the leachate collection and removal system until leachate is no longer detected."

This condition should be changed to provide for monthly monitoring based on a demonstration by CSSI that there have been a limited number of occasions where pumpable quantities of leachate have been removed from the LDS sump for a three-month period prior to the beginning of the post-closure period.

\* \* \*

I. Condition: VI.B.(7)(c)

II. Issue: This condition requires that CSSI submit a report on leakage when a weekly increase in the leakage rate of

greater than 50 percent occurs in the leachate detection system of a landfill.

III. Proposed Change: Delete this condition and conditions VI.B.(7)(c)(1), (2), (3) and (4).

In the alternative, delete the number "50" and revise this condition to read:

"The Permittee shall, within 45 calendar days of detecting an increase of greater than 100 percent above the preceding weekly average leakage rate, for average leakage rates above 50 gallons per acre per day, submit to the Director and the Administrator a report on the leakage that includes the following information:"

IV. Reason/Rationale For Proposed Change: This condition is attempting to incorporate language from EPA's proposed Leak Detection rules that requires reporting in the event that a "significant change" in the leakage rates occurs even though the permittee involved has an approved Response Action Plan (RAP). This provision circumvents previously approved permit conditions and burdens CSSI with unnecessary reporting requirements.

First, the proposed condition does not make a distinction between 50 percent of 1 gpad or 100 gpad. This clearly is inappropriate, because it can be applied at any level (even less than 1 gpad) of leakage, without respect to the potential risk or impact. It would also require CSSI to generate a needless and useless report that would require the agencies' time to review.

An approved RAP adequately addresses significant increases in leakage rates when they occur. Actions required for any level of liquid found in the system are in the RAP. Indeed,

the preamble to EPA's proposed rules suggests this. However, this condition appears to serve as an escape mechanism for the agencies in case they no longer like the RAP they have approved. This is an arbitrary action by the agencies, and this permit condition should be deleted.

However, if the agencies do not see fit to eliminate this condition, they must be consistent in applying EPA's proposed Leak Detection rules and acknowledge that EPA's own proposed rules provide for a one time daily maximum leakage rate of 50 gpad. It would not be consistent with the proposed rules to implement any "significant change" requirement below that already provided as a maximum.

In addition, CSSI believes that significant should be defined as 100 percent, to assure an increase that would warrant a report on change in existing and previously approved permit conditions.

\* \* \*

I. Condition: VI.B.(7)(d)

II. Issue: This condition requires CSSI to specify its proposed "course of action" with the notification to the agencies that the action leakage rate (ALR) has been exceeded.

III. Proposed Change: Delete the phrase "shall specify its proposed course of action" from this condition and revise it to read:

"In the event that leakage is found to exceed the action leakage rate (ALR), the Permittee shall notify the Director and the Administrator, in writing, within seven calendar days of the date the ALR was exceeded

and indicate that the Response Action Plan (RAP) will be implemented."

IV. Reason/Rationale For Proposed Change: The "proposed course of action" required with the notification is redundant and unnecessary because CSSI's Response Action Plan (RAP) details specific steps that will be taken if the ALR is exceeded. There thus is no need for specifying any additional course of action in the notification. The action that will be taken is the action required by the RAP.

\* \* \*

I. Condition: VI.B.(7)(f)[new]

II. Issue: CSSI has obtained new information based on consolidation testing since the RAP for Cells 1 and 2 was developed. This information increases the action leakage rate (ALR) for all cells in L-13.

III. Proposed Change: Revise Exhibit 21A to Attachment 22 at pages i (Table of Contents), 8, 14, 16-19 and 21 to show that:  
(1) construction (or consolidation) water value for Cell 1 is 11 gallons per acre per day (gpad) and for Cell 2 is 21 gpad, and  
(2) the ALR for Cell 1 is 26 gpad and for Cell 2 is 36 gpad.

IV. Reason/Rationale for Proposed Change: The original RAP developed for L-13, Cells 1 and 2, uses 20 gpad as the ALR for Cells 1 and 2 based on EPA's proposed Leak Detection rules. That ALR did not adequately consider consolidation of the clay and soils (which are an integral part of the liner design of L-13) and the accompanying release of makeup water. CSSI recently performed consolidation tests on the clays and recalculated the ALR based on the results of those tests. The results show construction (or



consolidation) water values of 11 gpad for Cell 1 and 21 gpad for Cell 2. Using EPA's current guidance value of 15 gpad for the action leakage rate permissible through the primary flexible membrane liner, the ALR for Cell 1 is 25 and for Cell 2 is 36. The calculations showing these ALRs are included in Exhibit 10 which is attached to these comments.

\* \* \*

I. Condition: VI.B.(8).

II. Issue: The permit condition requires that CSSI obtain a permit modification to incorporate a RAP for Landfill L-13, Cells 3, 4, 5, 6 and Landfill L-12.

III. Proposed Change: Delete the phrase "cells 3, 4, 5, or 6 of unit L-13, or" and "of each" from the first sentence of this condition and revise it to read:

"Prior to placement of waste into unit L-12, the Permittee shall obtain a permit modification from the Department and the Agency which specifies approval procedures that will be used to address liquid that may be found in the secondary leachate collection system sumps for the unit."

IV. Reason/Rationale For Proposed Change: CSSI has developed a RAP for cells 3, 4, 5, 6 that is consistent with the RAP already approved in CSSI's permit application, and requests that this attachment be incorporated into the final permit to avoid an unnecessary permit modification in the future. CSSI incorporates the Reason/Rationale from its comment on Attachment 22 Response Action Plan, Exhibit 21C [new].

VII. SURFACE WATER MANAGEMENT PLAN

VII.B. Schedule of Compliance.

I. Condition: VII.B.

II. Issue: The title for this section erroneously implies that the surface water management plan in CSSI's application does not comply with the RCRA rules.

III. Proposed Change: Delete the word "Compliance" and revise the title to read:

"VII.B. Schedule of Implementation."

IV. Reason/Rationale for Proposed Change: The agencies have not given any basis in recent inspections, inspection reports or in the Fact Sheet to show that CSSI's surface water management plan in its Part B permit application does not comply with the law. CSSI's surface water management plan does comply with the law.

VIII. SOLID WASTE MANAGEMENT UNITS

VIII.C. Post-Closure Care of Landfill Units L-1,

L-3, L-5 and L-6.

I. Condition: VIII.C.(2)

II. Issue: This condition arbitrarily requires the L-5 "leachate collection system" to be checked weekly and emptied within 8 hours of finding leachate.

III. Proposed Change: (1) Delete this condition.

(2) In the alternative, if the agencies are able to demonstrate authority for imposing this condition, revise the first sentence of this condition, delete the number "8" from the third sentence and revise the condition so it reads:

"The Permittee shall inspect the leachate collection system in unit L-5 for the presence of liquid on a weekly basis until no liquid has been detected for a period of six consecutive months. The results of the inspections, including the amount of any liquid found, shall be entered in the operating record. If liquid is found in the leachate collection system, all pumpable quantities of the liquid shall be removed, to the extent practicable, within 24 hours of the time such liquid is found. The liquid shall be managed as hazardous waste."

IV. Reason/Rationale for Proposed Change: (1) There is no regulatory requirement for pumping leachate from a leachate collection system for a solid waste management unit. This condition should be deleted.

(2) If no liquid is found for six months, there is no likelihood that liquid will be found later. Additionally, the condition on removal of leachate as stated is arbitrary. There is no practical significance to removing all liquid within 8 hours.

A 24-hour period would give CSSI an opportunity to plan and to mobilize the most effective way to remove the leachate. In addition, the condition does not define "to the extent practicable." It can only mean pumpable quantities. The condition should be revised as proposed to specify pumpable quantities.

\* \* \*

I. Condition: VIII.C.(3)(a)

II. Issue: The groundwater monitoring network for L-1, L-3, L-5 and L-6 as shown in section IX of the draft permit must be installed.

III. Proposed Change: The groundwater monitoring network in CSSI's Part B permit application should be used instead of the agencies' network in the draft permit.

IV. Reason/Rationale for Proposed Change: CSSI has performed considerable modeling to demonstrate that the network proposed by CSSI has 95% plus probability of detecting any contaminates which may escape from these landfills. The network proposed by the agencies in the draft permit includes wells which penetrate the landfill cover. This unnecessarily increases the chances that run-off could penetrate the cover and enter the landfills. These additional wells also enhance the chance that contaminates which may leach from the solid waste management units can find a pathway to the groundwater. CSSI incorporates the Reason/Rationale from its comment on conditions IX.A.(1) and IX.A.(2).

\* \* \*

I. Condition: VIII.C.(3)(b)

II. Issue: This condition refers to wells that should not be in the permit.

III. Proposed Change: Revise this condition to reflect the monitoring well network submitted by CSSI with its Part B permit application.

IV. Reason/Rationale for Proposed Change: CSSI incorporates its comments on conditions VIII.C.(3)(a) and IX.A.(1) and IX.A.(2).

\* \* \*

VIII.D. Corrective Action for Potential  
Groundwater Contamination.

I. Condition: VIII.D.

II. Issue: This condition arbitrarily requires CSSI to take certain actions including corrective action equivalent to 40 CFR § 264.100 within 90 days of a request from the agencies whenever it is "determined to be appropriate."

III. Proposed Change: Delete this condition.

IV. Reason/Rationale for Proposed Change: This condition allows the Director/Administrator unfettered, standardless discretion to make CSSI submit a plan to "modify" the detection monitoring program of units L-1, 3, 5 or 6 whenever they think appropriate based on analytical results from the detection monitoring program. Unbelievably, the agencies have simply bypassed the very detailed and self-implementing process in their own regulations for determining when a detection monitoring program should be modified.

This provision should be deleted because it contradicts the agencies' own groundwater monitoring regulations. If the agencies are allowed to subvert their own regulations in this manner, CSSI can never know what is expected of it, thus denying CSSI due process.

Even assuming the agencies could subvert the Subpart F regulations for these units, there is simply no other statutory or regulatory authority to support this condition. Corrective action for potential releases, as the title of the section suggests is not required or contemplated by the RCRA statutes or regulations. Corrective action is only necessary under 40 CFR § 264.101 if there has been a release which is a threat to human health or the environment. But the agencies have nowhere even suggested that there has been a release from these units. Indeed, there is not any issue concerning potential groundwater contamination from these areas.

Finally, and perhaps most importantly, the condition provides no standards by which the agencies will decide when this "corrective action" is necessary. They will simply make the subjective determination based on the results of groundwater monitoring data. The agencies do have authority [see condition I.F.(2) for citations to such authority] to require CSSI to undertake specific activities but only if certain objective standards are met or exceeded. No such standard is even present in this condition.

If these conditions were to be invoked in some way, the agencies should invoke the conditions against the actual parties

involved with these solid waste management units when waste was disposed because the operations approved for these units occurred before CSSI was the owner or the operator of the facility.

## IX. GROUNDWATER MONITORING PROGRAM

### IX.A. Monitoring Well/Piezometer Locations.

I. Conditions: IX.A.(1) and IX.A.(2)

II. Issue: These conditions identify a groundwater monitoring network which includes 82 downgradient monitoring wells (43 proposed and 39 existing) and 5 background water quality monitoring wells. This network is arbitrary and not necessary to protect human health and the environment.

III. Proposed Change: The groundwater monitoring network submitted with CSSI's application should be used.

IV. Reason/Rationale for Proposed Change: CSSI conducted lengthy modeling studies to design the well network submitted with its Part B permit application. CSSI's network provides a high level of confidence (95%) that a leak from a regulated unit would be detected at the compliance point. CSSI's proposed network was based on dividing the facility into individual waste management areas (WMA) and developing a network for each WMA by using an appropriate groundwater model.

EPA used a different concept to develop its network, subdivided still further CSSI's WMAs, and used different assumptions to model each WMA. EPA's delineation of additional WMA's accounts for 18 of the 38 additional monitoring wells over the number proposed by CSSI. The remaining 20 additional wells appear to be an output of EPA's attempt to use a different groundwater model and different hydrogeologic assumption to apply the model to CSSI's facility. The following comments further describe the problems with EPA's approach.



(1) WMA Size: The regulations recognize the validity of grouping waste management units for detection monitoring. The compliance boundary for establishing a network of wells around waste management areas is provided by 40 CFR § 264.95(b)(2):

"If the facility contains more than one regulated unit, the waste management area is described by an imaginary line circumscribing the several regulated units." [Emphasis added.]

In addition, 40 CFR § 264.97(b) provides:

"If a facility contains more than one regulated unit, separate groundwater monitoring systems are not required for each regulated unit provided that provisions for sampling the groundwater in the uppermost aquifer will enable detection and measurement at the compliance point of hazardous constituents from the regulated units that have entered the groundwater in the uppermost aquifer." [Emphasis added.]

These rules thus recognize that the compliance boundary and the accompanying groundwater monitoring network at a facility are to be established on the perimeter of a grouping of waste management units such as landfills.

In its Part B permit application, CSSI adopted a more conservative approach than the approach required under these rules. These rules would allow the compliance boundary and well network around the perimeter of the entire active area of the facility provided certain conditions were met. CSSI instead grouped Landfill units L-1, L-3, L-5, L-6, and L-7 as WMA #1 and Landfill units L-8, L-9, and L-10 as WMA #2 because of the proximity of the individual units to each other and the historical regulation of those units. CSSI's creation of these two WMA's fully complies with the RCRA rules.

The agencies, however, have identified six WMA's for these same landfill units. The agencies' WMA's are L-1; L-3; L-5; L-6 and L-7; L-8 and L-9; and L-10. CSSI objects to subdividing its two WMA's into six WMA's.

By its creation of six WMA's, the EPA artificially creates the need for the location of groundwater monitoring wells between units L-1 and L-3; L-3 and L-5; L-5 and L-7; and L-9 and L-10. There is no evidence to show that these wells are needed to monitor the areas encompassed by these units. Drilling in the limited area between these units may cause more environmental harm than good. If contamination does occur around the units, it will likely be retained in the thick unsaturated zone beneath the units. However, as drilling progresses, this potential contamination could be "dragged down the borehole" into the Selah formation. EPA, itself, has recognized in its Groundwater Monitoring Technical Enforcement Guidance Document (TEGD) that precautions should be taken to prevent dragdown of existing contamination throughout a borehole.<sup>3</sup> In the absence of such drilling, those borehole contaminated pathways would not exist. A second concern with drilling in areas so near these old units is that the borehole may serve as a conduit for contaminants to migrate more easily to the Selah from the units themselves. There is no benefit to undertaking this risk.

A further consideration affecting units, L-1, L-3, L-5 and L-6 arises because they are so connected that CSSI is

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<sup>3</sup>CSSI, however, disagrees with many other aspects of the TEGD.

presently having a final cap installed over this entire area. This design was required by the Oregon DEQ based on a concern that the entire area should be protected from infiltration of rainfall and run-off. The cap extends out approximately 10 feet around the perimeter of the units and covers the land between the units which is over 100 feet between L-1 and L-3, and between L-3 and L-5. After spending much time and effort assuring the integrity of the final cap in accordance with the agencies' wishes, CSSI does not believe it is environmentally prudent to drill through this cap in order to install wells between the individual units.

The DEQ has consistently treated L-1, L-3, L-5 and L-6 as one waste management area as CSSI has done in its groundwater monitoring network. Under Oregon law previously applicable to the facility, a permittee was required to deed to the state "all that portion of the hazardous waste disposal site in or upon which hazardous wastes shall be disposed of." ORS 459.590 (1985 replacement part). Under this statute, the prior owner and operator of the facility deeded to the state the entire waste management area. Attached as Exhibit 2 is a copy of the warranty deed showing conveyance of the land covered by units L-1, L-3, L-5 and L-6 as well as all land between the units.

Finally, L-1, L-3, L-5 and L-6 are solid waste management units not regulated by RCRA except in a very limited manner. That regulation does not extend to monitoring requirements where there has been no release that poses a threat to human health or the environment. No such release is present here.

(2) Modeling Parameters: EPA believes some assumptions used by CSSI in developing its groundwater model are inappropriate. EPA has stated that it used a different groundwater model with a different set of assumptions to develop the groundwater monitoring network identified in the draft permit. That model is apparently not documented.

The location and spacing of wells presented in CSSI's plan was based on the results of a stochastic model entitled (MONWELL) that incorporated the various hydrogeological and engineering parameters that affect well network design. Parameters were incorporated into the model as distributions with a mean and standard deviation. The mean term reflects the best estimate as to the actual value of the parameter and the variation term reflects the uncertainty in the estimated value. This approach provides a well network which shows a high level of confidence (95%) that a leak from a regulated unit would be detected at the compliance point. The use of the Monwell stochastic model offers a design based on reasonable detection probabilities without using unrealistic "worst case" analyses for all elements of the network.

The EPA in its Notice of Deficiency (NOD) dated March 20, 1987, concurred with CSSI's basic modeling approach:

"In general, the basic approach used in the monitoring well network design (i.e. stochastic modeling of groundwater flow/dispersion) is considered technically sound. This approach offers the opportunity for determining the appropriate number and spacing of wells along the compliance point on a quantitative basis, as well as on professional judgment. The primary criteria given in the Golder Report for basing the

network design is to achieve a probability of detection of 95 percent or better, should a 'detectable' leak occur from an onsite unit.

". . . the 95 percent probability criterion for leak detection evidently has been selected arbitrarily, but since no specific regulatory criterion is known to exist, this value is considered acceptable as a 'reasonable' probability to base the design."

EPA provided specific comments on the model parameters used. These comments primarily related to the values of dispersivity used in the model and the assumed probability of a leak along the side slope of either the L-13 or L-12 landfill.

Transverse dispersivity describes the amount of lateral spreading the contaminant plume undergoes as it flows downgradient within the aquifer. A larger value of transverse dispersivity will result in a wider plume and thus will be detectable with more widely spaced monitor wells than a smaller value. Longitudinal dispersivity describes spreading in the direction of flow. Transverse dispersivity is commonly assumed to be some proportion of the longitudinal dispersivity. Commonly, the transverse dispersivity is about one fifth of the longitudinal dispersivity.

No measured values of dispersivity exist at the facility, and it is not considered feasible to measure values from field tests. Therefore, for the purpose of designing and modeling the well network, dispersivity values measured in similar geologic materials at other locations were taken from the published literature. A longitudinal dispersivity with a mean value of 20 meters and a standard deviation of 9 meters was used to design the well network in the CSSI plan. An average ratio of longitudinal

to transverse dispersivity of 5:1 was used. The data sources used to develop these values are referenced in CSSI's plan.

EPA recommended using longitudinal dispersivity values between 2 and 10 meters with a 5:1 ratio of longitudinal to transverse. Information presented in EPA comments dated June 4, 1987 (from Baker/TSA, Inc.) indicates that the EPA used a transverse dispersivity of 2 feet (0.6m) in their model. Assuming a 5:1 ratio, this would correspond to a longitudinal dispersivity of about 3 meters. The assumed EPA values fall on the tail of the distribution of possible values considered in the CSSI model.

In CSSI's opinion, the values of dispersivity used by the EPA are unrealistically low and are not supportable based on published literature. In fact, EPA's final network supports CSSI's position because EPA ended up doubling the plume widths calculated by its model to account for lateral spreading in the unsaturated zone to arrive at its final network.

EPA suggested that the side slope leak probabilities used in the MONWELL model should be increased from 1 to 10 percent to be more consistent with the Response Action Plan (RAP). However, the leaks considered in the RAP were for a puncture in the primary liner only and did not address leaks through the secondary liner and the underlying clay. A complete breach through two liners and the clay on a side slope is very unlikely, thus, the 1 percent probability of a leak is considered adequate. EPA's model was apparently unable to incorporate directly leak probabilities. Without further documentation about what EPA did,

it is not possible to state definitively how the side slope leak probability has affected the network design.

In summary, the EPA modeling study is inadequately documented and based on unreasonable values of dispersivity. Once again, CSSI specifically requests that EPA provide the output from its groundwater modeling effort at the facility, so that CSSI can evaluate the results on equal terms with its own. Until EPA provides CSSI with this output, it appears that EPA is requesting CSSI to install additional monitoring wells for the sake of installing additional monitoring wells.

(3) Summary Comment. CSSI's proposed groundwater monitoring network was designed based on a stochastic model using conservative assumptions and reasonable detection probabilities (95%). Furthermore, after concurring with this modeling approach, EPA developed a groundwater monitoring network based on a "worst case" determination approach using assumptions that it appears are not only unsupported but that also are inadequately documented. CSSI continues to believe that its original network will be protective of human health and the environment and will detect a potential contaminant plume with a high degree of certainty. The agencies should incorporate into the final permit the groundwater monitoring network in CSSI's Part B permit application.

\* \* \*

I. Condition: IX.A.(3)(a)

II. Issue: The agencies have identified 26 Selah Level 1 piezometers which must be maintained for the purpose of determining water level elevations during the life of the permit.

III. Proposed Change: Revise this condition to read:

"Piezometers shown on Plate 1 shall be referred to as 'Level 1 Piezometers' (Level 1 being the upper level of the Selah aquifer, with the water table within the screened zone) and shall consist of 7 piezometers, as listed below:

3H	3J	V	T-1, 2."
4P	30	3I	

IV. Reason/Rationale for Proposed Change: Because of the extensive monitoring well network, CSSI believes that it can adequately determine groundwater flow direction and velocity without collecting additional water level data from all 69 piezometers identified in conditions IX.A.(3)(a) and IX.A.(3)(b). CSSI has eliminated piezometers which are not completed in the appropriate formation (i.e., Priest Rapids basalt) or are double completion wells.

\* \* \*

I. Condition: IX.A.(3)(b)

II. Issue: The agencies have identified 43 Selah Level 2 piezometers which must be maintained for the purpose of determining water level elevations during the term of the permit.

III. Proposed Change: Revise this condition to read:

"Piezometers shown on Plate 2 shall be referred to as 'Level 2 Piezometers' (Level 2 being the lower zone of the Selah aquifer, with the bottom of the screened interval at the base of the saturated zone) and shall consist of 11 piezometers, as listed below:

3I	3H	3J	3Y
W4	X	3F	Z-1, 2."
3U	4Pa	30	

IV. Reason/Rationale for Proposed Change: CSSI incorporates the Reason/Rationale from its comment on condition IX.A.(3)(a).



\* \* \*

IX.B. Monitoring Well Construction.

I. Condition: IX.B.

II. Issue: This condition imposes arbitrary, inflexible construction criteria for monitoring well construction.

III. Proposed Change: If the agencies have concerns about monitoring well construction, the agencies should provide one condition which specifies that CSSI will construct the wells in accordance with a well specification plan approved by the agencies which provides sound engineering principles and good practice. This plan would be submitted 60 days after permit issuance for approval by the agencies. It could be revised under condition I.CC. subject to the agencies' approval. A major modification to the permit would not be required for changes.

IV. Reason/Rationale for Proposed Change: CSSI constructs wells in the most technically sound and reliable manner. The agencies' criteria in this condition severely reduce flexibility and in some instances are poor practice for the facility. The burden should be on CSSI to ensure that the wells are properly installed and developed. CSSI is willing to carry that burden. Also, the more flexible mechanism for controlling monitoring well construction proposed by CSSI would allow CSSI to take advantage of improvements in the field without the burden of a major permit modification but still be subject to control and approval by the agencies. To make changes by major permit modification appears to be unnecessarily rigorous and provides no benefit. The agencies can provide the regulatory oversight required by 40 CFR Part 264

Subpart F by maintaining oversight over the plan which would be required and any subsequent modifications.

\* \* \*

I. Condition: IX.B.(1)

II. Issue: The agencies specify that CSSI must install new monitoring wells using air rotary or cable tool drilling methods.

III. Proposed Change: (1) Delete this condition.

(2) In the alternative, add the following sentence to the end of this condition so it reads:

"All new monitoring wells (and any replacement wells) shall be drilled to a minimum diameter of 8 inches, by either rotary or cable tool methods or any other drilling method approved by the Department and the Agency as provided in permit condition I.CC.

IV. Reason/Rationale for Proposed Change: (1) CSSI incorporates the Reason/Rationale from its comment on condition IX.B.

(2) The permit should not limit drilling methods to only the two given in this condition. If drilling technologies change during the ten-year term of this permit, CSSI should be able to use an improved drilling technology with prior approval by the agencies without a requirement for a major modification to the permit.

\* \* \*

I. Condition: IX.B.(3)

II. Issue: This condition mandates geophysical logging and bentonite slurry to the ground surface.

III. Proposed Change: (1) Delete this condition.

In the alternative, (2) (a), add the following sentence after the second sentence of this condition:

"As an alternative to geophysical logging, the Permittee may use a coring method or other method approved by the State and the Agency."

and (2) (b), delete the phrase "bentonite slurry" from the fourth sentence of this condition and revise it to read:

"The remainder of the well annulus, up to the ground surface, shall be sealed with an appropriate seal to the surface, placed by a tremie pipe."

IV. Reason/Rationale for Proposed Change: (1) CSSI incorporates the Reason/Rationale from its comment on condition IX.B.

(2) (a) It is in CSSI's best interest to install the monitoring wells properly. Geophysical logging may not be the best method of locating the confining layers and saturated zone. Other applications may be better suited in certain areas of the facility.

(2) (b) Bentonite slurries may develop desiccation cracks in dry soils found at the facility. In addition, the Oregon Department of Water Resources has disallowed the use of bentonite slurry to seal the well annulus. A combination of a layer of bentonite slurry placed in the saturated zone followed by cement grout to the surface would provide a better seal. This isolates the cement grout from the saturated zone where it could impact pH, but provides cement grout above the saturated zone to seal the well safely.

\* \* \*

I. Condition: IX.B.(4)

II. Issue: This condition arbitrarily requires a three-foot bentonite seal to the surface.

III. Proposed Change: (1) Delete this condition.

(2) In the alternative, delete the fourth sentence of this condition.

IV. Reason/Rationale for Proposed Change: (1) CSSI incorporates the Reason/Rationale from its comment on condition IX.B.

(2) A "three-foot" bentonite seal cannot be extended to the surface. This appears to be a typographical error. CSSI incorporates the Reason/Rationale from its comment on condition IX.B.(3).

\* \* \*

I. Condition: IX.B.(5)

II. Issue: This condition erroneously requires that two wells be used at locations where the saturated thickness exceeds 20 feet and there is no confining layer.

III. Proposed Change: (1) Delete this condition.

(2) In the alternative, delete the phrase "the Level 1/Level 2 well pair shall be drilled, screened, and sealed so as to screen the full saturated thickness of the Selah aquifer at that location from the first sentence of this condition and the phrase "At locations where the full saturated thickness is found to be less than 20 feet" from the second sentence so this condition reads:

"Where no significant confining layer separating the Selah Level 1 and 2 aquifers is identifiable based on drilling and geophysical logging, a single fully penetrating well shall

be acceptable to monitoring both Levels 1 and 2 at that location, provided the top of the screen extends approximately 3 feet above the water table."

IV. Reason/Rationale for Proposed Change: (1) CSSI

incorporates the Reason/Rationale from its comment on condition IX.B.

(2) This condition apparently arises because of the agencies' concern about dilution of hazardous constituent levels by screening a zone greater than 20 feet. With the sensitivity of modern analytical techniques, however, there is no reason to screen two levels in the same aquifer. Very low levels of hazardous constituent (in parts per billion) can be detected. With the high sensitivity of analytic techniques it is improbable that a contaminate plume that would be detectable in either of two levels screened in the same aquifer would not also show up in detectable quantities if the entire zone were screened by one well. The 20-foot requirement adds expense to the network for little, and likely no, benefit in increased detection capability.

\* \* \*

I. Condition: IX.B.(6)

II. Issue: This condition erroneously requires National Sanitation Foundation certification of PVC.

III. Proposed Change: (1) Delete this condition.

(2) In the alternative, delete the phrase "approved by" from the first sentence of this condition and revise it to read:

"All new or replacement monitoring well casings and screens shall be constructed of either Type 316 stainless steel or Schedule 80 polyvinyl chloride (threaded connection and exceeding National Sanitation Foundation

criteria within either the unsaturated or saturated zone of the Selah aquifer."

IV. Reason/Rationale for Proposed Change: (1) CSSI incorporates the Reason/Rationale from its comment on condition IX.B.

(2) ASTM standards exceed the NSF. However, NSF may not have approved a brand of pipe recognized by ASTM.

\* \* \*

I. Condition: IX.B.(7)

II. Issue: This condition arbitrarily requires the new wells specified in draft permit Table 1 and Plates 1 and 2 for Landfill L-12 and Impoundment P-C to be installed within 270 days.

III. Proposed Change: Delete the phrase "(43 wells total)," and revise the first sentence of this condition to read:

"The Permittee shall construct, develop, and equip all new monitoring wells, as required by permit conditions IX.A. through IX.A.(2), IX.B. through IX.B.(8), and VIII.C.(3)(a) through VIII.C.(3)(a) within 270 calendar days after the effective date of this permit except that the Permittee shall construct, develop, and equip all new monitoring wells for unit L-12 and P-C at least 30 calendar days prior to operation of any unit."

IV. Reason/Rationale for Proposed Change: The monitoring wells for proposed units L-12 and P-C should not be installed until after excavation has been completed and berms are in place for these units. By proceeding in this manner, damage to monitoring wells during the initial phases of construction for the proposed units can be avoided. Also, premature construction of these wells will be a hindrance to daily site operations. Delayed capital investment makes sense, because there is no environmental

benefit from the premature construction of wells. In any event, the monitoring network for units L-12 and P-C will be installed at least 30 days prior to commencing operating these units. All other monitoring wells for currently active units will be installed within the specified 270-day time frame.

\* \* \*

I. Conditions: IX.B.(7) and IX.B.(8)

II. Issue: This condition requires that monitoring wells and piezometers which need replacement during the term of the permit be replaced within 30 days of the date taken out of service.

III. Proposed Change: Delete the number "30" from the second sentence of each of these conditions and revise the sentences to read:

IX.B.(7) [second sentence] "If a monitoring well must be replaced for any reason during the term of this permit, it shall be replaced within 90 calendar days of the date taken out of service."

IX.B.(8) [second sentence] "If a piezometer must be replaced for any reason during the term of this permit, it shall be replaced within 90 days of the date taken out of service."

IV. Reason/Rationale for Proposed Change: A 30-day time requirement is unreasonable for several reasons. First, it normally takes between 30 and 60 days to select and to mobilize a competent and experienced drilling contractor. Second, it is necessary that the installation of wells be conducted in accordance with a schedule which provides for accurate logging and placement of casing. Experience gained from the installation of

existing wells indicates that approximately one week is required to complete a well once the driller is on-site. Weather conditions at the facility can also result in delays. The 30-day program of well replacement required by the agencies would greatly increase the possibility of improper well installation procedures occurring.

\* \* \*

IX.C. Monitoring Well/Piezometer Maintenance.

I. Condition: IX.C.(2)

II. Issue: This condition incorporates the agencies' arbitrary groundwater monitoring network into the Inspection Plan.

III. Proposed Change: Delete the note in this condition.

IV. Reason/Rationale for Proposed Change: CSSI incorporates the Reason/Rationale from its comment on conditions IX.A.(1) and (2).

\* \* \*

I. Condition: IX.C.(3)

II. Issue: This condition erroneously requires CSSI to sound each well and piezometer every other year.

III. Proposed Change: Delete the second and third sentences of this condition and add the following sentences:

"For any well which has dedicated sampling equipment, the Permittee, during each sampling event, shall evaluate each well for indication of excessive silt by noting the purge volume from each well and measuring the turbidity in each sample. Excessive siltation in the well will be indicated by decrease in purge volumes or increasing turbidity measurements for subsequent well samplings. If the Permittee concludes that there may be excessive silt in the monitoring well, then the Permittee shall undertake an investigation of the total well



depth to define the extent of siltation. The Permittee shall sound any well or piezometer which does not have dedicated sampling equipment for well depth every other year beginning with the first semi-annual sampling event (or annual sampling event for SWMU's) after the completion of construction of all monitoring wells which are specified in permit condition IX.A.(2). The Permittee shall maintain records of the purge volumes, turbidity measurements, depth of well measurements and the silt/sedimentation accumulation in the operating record, for the term of this permit."

IV. Reason/Rationale for Proposed Change: A well with a dedicated sampling system does not need to be sounded every other year. The purpose of installing a dedicated sampling system is to minimize the potential for contaminating groundwater samples. By pulling the equipment every two years, the pump and discharge lines are exposed to the atmosphere and local environment. High winds and blowing soil from agricultural operations occur in the area. Because analytical techniques are sensitive to the low parts per billion, removal of dedicated equipment would unnecessarily expose the equipment to the possibility of contamination. CSSI agrees that the integrity of the borehole should be maintained, but it should be based on a performance specification associated with a drop in the yield of the well or excessive turbidity in the water samples.

\* \* \*

I. Condition: IX.C.(4)(a)

II. Issue: This condition erroneously requires CSSI to redevelop a monitoring well or piezometer after sediment has accumulated to a depth of a one foot or more.

III. Proposed Changes: Delete this condition.

IV. Reason/Rationale for Proposed Change: CSSI has outlined a performance specification for determining when a monitoring well should be redeveloped in the proposed change in its comment on condition IX.C.(3). That change, if adopted, would make this condition unnecessary.

Also, piezometers are used only for water level measurements. Normally they would not be subjected to pumping. Therefore, there is no mechanism for silt to enter a piezometer.

\* \* \*

IX.D. Detection Monitoring Program.

I. Condition: IX.D.2

II. Issue: This condition requires groundwater elevation data to be adjusted for barometric efficiency.

III. Proposed Change: Delete the phrase "adjusted for barometric efficiency at each well," so this condition reads:

"The Permittee shall use these data, to construct water table elevation (or piezometric surface) contour maps for Level 1 and Level 2 of the Selah Aquifer."

IV. Reason/Rationale for Proposed Change: Changes in atmospheric pressure can produce water level fluctuations in wells or piezometers. The relationship is an inverse one; increases in atmospheric pressure create declines in observed water levels while decreases in atmospheric pressure create increases in observed water levels. Barometric efficiency describes the response of a well to changes in atmospheric pressure. A well with a barometric efficiency of 100 percent indicates that the well water level responds an equal, but opposite amount to the atmospheric pressure change; an increase in atmospheric pressure

of 10 bars (0.335 feet of water) would induce a corresponding decline in the well water level of 0.335 feet. Generally barometric efficiencies range between 20 and 75 percent (Freeze and Cherry, 1979) and hence atmospheric pressure changes induce a somewhat less than equal change in well water levels. The higher efficiencies are generally seen in confined aquifers.

In order to correct well water levels for barometric efficiency, the barometric efficiency of each well must be determined because all wells will not be impacted identically by pressure changes. This involves continuous water level measurements over a period of days or weeks and comparison of the well water levels to the corresponding atmospheric pressure. This would be a lengthy task considering the numbers of wells in the monitoring network.

Dames and Moore report that barometric efficiencies for wells F, J and MW-1 are 35, 29 and 69 percent respectively as determined from observations during April, 1984. Barometric efficiency for wells 30-1, 30-2, 2 V-2 and 3T-1a was determined as 169, 29, 60 and 70 percent respectively. The barometric efficiency for well 30-1 was questionable since it was in excess of 100 percent.

Dames and Moore report daily atmospheric pressure changes at the facility of at least 5 millibars (mb). In addition, over a two-week period, two apparent cycles of about seven days length with amplitudes of 7 to 8 mb were recorded. For a well with a barometric efficiency of 100 percent this would translate to a maximum water level fluctuation of 0.27 feet.

Information from the National Weather Service in Portland indicates atmospheric pressure changes of 20 mb above and below normal (i.e. 40 mb range) as major weather systems pass through the Pacific Northwest. Extreme atmosphere pressure changes of more than 30 mb above and below normal (i.e. 60 mb range) have been recorded (Dames and Moore, 1987).

Based on average conditions, it appears that pressure changes over several days when levels might be recorded would probably be less than 10 mb unless a major weather system is passing through the area. Under worst case conditions, i.e. wells with barometric efficiencies ranging from zero to 100 percent, this could result in water level errors ranging from zero to 0.33 feet.

Considering the fairly steep hydraulic gradient across the facility, these water level measurement errors would not have a significant impact in determining the groundwater flow directions and rate across the facility.

Therefore, correcting water levels for barometric efficiency is not necessary to determine groundwater flow rate and direction.

\* \* \*

- I. Condition: IX.D.(4)(c)
- II. Issue: This condition allows the agencies to direct CSSI to initiate a compliance monitoring program (40 CFR § 264.99) or a corrective action program (40 CFR § 264.100) for a specific monitoring well or group of wells.
- III. Proposed Change: Delete this condition.

IV. Reason/Rationale for Proposed Change: The agencies have no authority to impose this condition. The rules in 40 CFR Part 264 Subpart F including 40 CFR § 264.99 and 40 CFR § 264.100, provide specific conditions under which CSSI must undertake a compliance monitoring program or a corrective action program. Furthermore, the regulations contain a step process for modifying a detection monitoring system which includes first compliance monitoring, and then corrective action, if necessary. This condition, in contrast, indicates that the agencies may require either a compliance monitoring program or a corrective action program whenever they choose to so direct.

Moreover, this condition conflicts with the later condition that provides for determining whether CSSI has to initiate a compliance monitoring program for VOCs. [See condition IX.F.(3).] There the agencies recognize the procedures in place for this purpose. Here they completely ignore the procedures.

The condition grants the agencies unfettered, standardless discretion to require CSSI to submit a plan to undertake what may be significant activities. The agencies have authority [see condition I.F.(2) for citations to such authority] to require CSSI to undertake specific activities but only if certain conditions first exist and if certain procedures are followed. There is no such condition here, nor do the agencies suggest that there is. Under these circumstances, the agencies must follow the regulatory scheme under the authorities they have and take any other action appropriate on a case-by-case basis.

\* \* \*

I. Condition: IX.D.(5)

II. Issue: This condition requires closure of all wells taken out of service.

III. Proposed Change: Delete this condition and replace it with the following:

"Any wells closed shall be closed in accordance with requirements of the State of Oregon Water Resources Department."

IV. Reason/Rationale for Proposed Change: It is premature to decommission wells which are intact and merely idle. There is no such requirement in 40 CFR § 264.97(c). These wells could be useful if the agencies change the monitoring plan or if CSSI develops new plans for the facility.

\* \* \*

IX.E. Groundwater Sampling and Analysis.

I. Condition: IX.E.(3)

II. Issue: This condition erroneously requires that volatile organic compounds (VOC) be collected as soon as three feet of water is recharged into the well after purging.

III. Proposed Change: Delete the second sentence from this condition.

IV. Reason/Rationale for Proposed Change: The agencies base the need for this condition on the belief that VOC may be released due to volatilization or air contact at depths of over 200 feet. It is highly unlikely that air is circulating in a narrow diameter well at these great depths to cause a loss of VOC. The condition is burdensome, in that, it can be interpreted to mean that CSSI must sample as soon as the well recovers to three feet. If

contamination exists such extraordinary measures will not be necessary to detect it.

\* \* \*

I. Condition: IX.E.(4)

II. Issue: This condition erroneously requires that groundwater samples be analyzed in accordance with EPA SW-846, "Test Methods for Evaluating Solid Waste: Physical/Chemical Methods."

III. Proposed Change: This condition should be revised to read:

"The following analytical methods referenced from the Third Edition of EPA SW-846 ('Test Methods for Evaluating Solid Waste, Physical/Chemical Methods') or other EPA-approved methods, shall be used in analysis of groundwater samples, in lieu of those referenced by the Permittee in Attachment 26, Section 5.4:"

IV. Reason/Rationale for Proposed Change: In the permit application, CSSI proposed to use EPA Methods 624 (40 CFR Part 136) for the analysis of the volatile organic parameters and to use the methods specified in "Methods for Chemical Analysis of Water and Wastes," (EPA 600/4-79-020 EPA) for the inorganic parameters. SW-846 Methods, while similar in some respects to EPA 600 series methods and the inorganic methods, have not been tested or proven reliable for groundwater analysis. The Director of the EPA office of Solid Waste agrees as shown in the recent letter attached as Exhibit 14.

The SW-846 methods continuously refer to solid waste in particular, and groundwater incidentally or matter-of-factly. Groundwater has entirely different criteria for interpretation

than solid waste. The former operates at the detection limit in all cases and therefore the error rate on the determination is significant, while the latter operates far above the detection limit (sometimes near the limit of linearity) and therefore the error is insignificant. The impact of detecting Appendix IX constituents in groundwater is an order of magnitude more significant from a cost, publicity, as well as regulatory standpoint, and the false positive rate is much higher, indicating that extreme care must be exercised in setting criteria so that facilities are not continually in unwarranted compliance monitoring programs.

Some of the sampling and analytical techniques describe in SW-846 present specific problems. For example, the level of QA/QC required for Method 8240 is much higher than for the corresponding Method 624. This could directly or indirectly increase the cost of an analytical program and turnaround time for results substantially. Furthermore, SW-846 provides no procedures for sample preservation and the instructions for the shipment and transport of solid waste samples are inapplicable for groundwater samples. Sample bottle preparation instructions also are inadequate for a groundwater monitoring program. If SW-846 sampling and analysis methods are to be applied to groundwater, the methodologies should be revised and restructured to include groundwater procedures in a separate section.

CSSI and its contracting laboratories have been using EPA Methods 624 and the inorganic methods for the past several years, as allowed by interim status regulations. These



laboratories have had the opportunity during this period to perfect their techniques to ensure the greatest degree of accuracy possible. The requirement to change to an alternative, less suitable sampling and analysis methodology may undermine both the agencies' and CSSI's goal to establish a workable and dependable groundwater monitoring program.

\* \* \*

I. Condition: IX.E.(5)

II. Issue: This condition requires CSSI to analyze groundwater samples for dissolved (filtered samples) and total (unfiltered samples) metals for a period of three years to demonstrate that there is no significant difference in the concentration detected between these two samples.

III. Proposed Change: Delete this condition.

IV. Reason/Rationale for Proposed Change: This condition is economically burdensome and is not technically necessary. All groundwater samples requiring metal analyses should be field filtered.

The agencies believe that the concentration of dissolved metals would be less than the concentration of total metals in any one groundwater sample. This is a moot point. Because the amount of silt and sediment found in groundwater samples will vary with time for each well, the total metals detected in each sample will also vary leading to inconsistent results. The agencies will not be able to interpret what the total metals results mean, much less the comparison of total metals to dissolved metals. The agencies should be more concerned with having CSSI generate consistent

results in order to identify more easily a statistically significant increase. By analyzing samples for the dissolved metals, the impacts of natural sediment and silt are eliminated because the sample is filtered. Metals naturally occurring in sediment and silt but suspended in groundwater are not constituents that a monitoring program should be operating to detect.

The agencies are wrong in stating in the Fact Sheet (p. 85 of 91) that there is substantial disagreement in the scientific community on whether groundwater samples should be filtered. Enclosed with these comments as Exhibit 15 is a list of references that discuss how and why groundwater samples should be filtered.

Again, this demonstration project is not necessary and will only generate data which cannot be interpreted. Therefore all groundwater samples should be filtered prior to analyzing for metals.

\* \* \*

#### IX.F. Data Evaluation.

- I. Condition: IX.F.(1)(a)
- II. Issue: This condition establishes the statistical criterion for evaluating volatile organic compound (VOC) results at 20 micrograms per liter for any single VOC compound detected.
- III. Proposed Change: Delete this condition.
- IV. Reason/Rationale for Proposed Change: The presence of contamination is defined by EPA regulations as the statistically significant increase of the measurable value of a monitoring

parameter over its background value. Because VOC are not naturally occurring and it has been documented that low level "hits" of VOC are detected at a frequency on the order of 5%, it might take several years of quarterly monitoring to establish a facility specific background.

Therefore, in order to evaluate VOC results, CSSI developed a tolerance limit based on a database of field and trip blank results. The tolerance limit established at 95% confidence was 40 micrograms per liter for any one VOC.

Although the agencies appear to have accepted this statistical method, the limit set forth in the permit of 20 micrograms per liter is arbitrary and technically unsupported. CSSI requests that the agencies delete this condition and also provide their documentation supporting a statistical limit of 20 micrograms per liter.

\* \* \*

I. Condition: IX.F.(2)(b)

II. Issue: This condition requires CSSI to verify statistically significant results by resampling the well using a fluorocarbon resin or stainless steel bailer after removing the dedicated sampling equipment.

III. Proposed Change: Delete this condition.

IV. Reason/Rationale for Proposed Change: The RCRA regulations at 40 CFR § 264.97(h)(i) state:

"If the test indicates that the difference is significant, the owner or operator must repeat the same procedure . . . with a fresh sample from the monitoring well. If this second round of analyses indicates that the difference is significant, the owner or

operator must conclude that a statistically significant change has occurred."

The RCRA regulations at 40 CFR § 264.98(i) also state:

"If the owner or operator determines pursuant to paragraph (g) of this section, that there is a statistically significant increase ... he may demonstrate that a source other than a regulated unit caused the increase or that the increase resulted from error in sampling, analysis or evaluation."

By requiring CSSI to undertake the effort required by this condition, the agencies are not following the RCRA regulations. The verification of a statistically significant value must be repeated using the same procedure with a fresh sample from the monitoring well. After verifying that there is a statistically significant increase, the owner/operator may then demonstrate that a source other than the unit caused the increase. By this permit condition, the agencies have identified the sampling equipment as a source other than the regulated unit prior to verifying the original result.

\* \* \*

I. Condition: IX.F.(3)(b)

II. Issue: This condition requires CSSI to develop as one of two options a report that a source other than a waste management area caused a statistically significant increase.

III. Proposed Change: Revise this condition to read:

"A report demonstrating that a source other than a waste management unit (or waste management area) caused the increase or that the increase resulted from error in sampling, analysis, or evaluation, and in addition when required by 40 CFR § 264.98(i), an application for a permit modification to make any appropriate changes to the detection monitoring program at the facility."

IV. Reason/Rationale for Proposed Change: The applicable RCRA regulation, 40 CFR § 264.98(i), sets forth instances when a permit modification need not be submitted. The condition should be changed as proposed to reflect the requirements of the regulation.

\* \* \*

I. Condition: IX.F.(4)

II. Issue: This condition imposes an additional step in the groundwater monitoring process which is neither provided for in the regulations nor necessary to protect the environment.

III. Proposed Change: Delete this condition.

IV. Reason/Rationale For Proposed Change: This condition requires that CSSI investigate and report to the agencies, as well as submit a permit modification, if CSSI detects VOC above the statistical monitoring criteria using one of the two sampling techniques prescribed in condition IX.F.(2). If CSSI detects VOC above the statistical monitoring criteria using both sampling techniques in condition IX.F.(2), condition IX.F.(3) requires CSSI to take certain actions, nearly all of which are consistent with the RCRA regulatory requirements.

The intermediate step provided in this condition is without regulatory basis and is inappropriate. Obviously, the agencies do not consider finding a hit using one of the two sampling techniques significant event. However, it still triggers the necessity to submit a permit modification for the detection monitoring program. If not significant, it should not be required.

Additionally, the Fact Sheet (p. 89 of 91) contradicts the terms of this condition as it does the terms of condition IX.F.(3)(b). For both of these conditions, the Fact Sheet states that the Director or Administrator may direct CSSI to either go into a compliance monitoring program or a corrective action program. As discussed in the Reason/Rationale in CSSI's comment on condition IX.D.(4)(c), these provisions of Subpart F are self-implementing. The agencies do not have authority to direct such actions. Additionally, the regulations do not provide for compliance monitoring or corrective action. It is a stepwise process that begins with detection monitoring and then goes to compliance monitoring and finally to corrective action if certain findings are made through the process.

\* \* \*

I. Condition: IX.F.(6)

II. Issue: This condition has absolutely no basis in fact or in law.

III. Proposed Change: Delete this entire condition except for the requirement that CSSI submit analytical data for the supplemental parameters listed in Table 6-1 of Attachment 26.

IV. Reason/Rationale for Proposed Change: This condition is not only far outside the scope of the regulations, but it is also patently unfair as it sets up a subjective test for determining whether the agencies think CSSI should take any "corrective" action, regardless of established regulatory requirements in 40 CFR Part 264 Subpart F, which have already been imposed regarding VOC's.

First, the agencies mistakenly refer to the parameters other than VOC's as "indicator" parameters. The Groundwater Monitoring Plan which the agencies have attached as Attachment 26 specifically distinguishes between the "indicator" parameters (VOC's) and the supplemental parameters. It is clear from the Groundwater Monitoring Plan that there was no intent that these supplemental parameters be in any way connected with the groundwater monitoring requirements in 40 CFR Part 264 Subpart F. Indeed, the plan specifically states that these parameters are to be used only to confirm the results of VOC analyses. They have no separate significance in the regulatory framework. The agencies seem to recognize this by suggesting this data be used to develop time trend analysis, yet they still indicate in the Fact Sheet (p. 90 of 91) that this is part of the detection monitoring program.

Second, the agencies have cited absolutely no authority for requiring CSSI to perform a time trend analysis with respect to these parameters. The agencies have already imposed substantial requirements to enforce compliance with 40 CFR Part 264 Subpart F concerning VOC's. They have provided absolutely no basis for broadening the scope of the groundwater monitoring program. Notwithstanding all of that, it is not at all clear how this time trend analysis is to be developed or applied. The Fact Sheet states (p. 90 of 91):

"Upon submittal of this trend analysis, in which data from each well is compared to all other data from that well over time, the Department and the Agency will consider all available data and determine whether a

significant increase in any parameter had occurred in that well . . ."

CSSI has absolutely no idea what this means. What data is compared to what data? What constitutes "all available data"? And, most importantly, what constitutes a "significant increase in any parameter"? There is simply no objective method available for analyzing the results from these wells. The agencies themselves have admitted in the Fact Sheet (p. 90 of 91) that there is no background for these parameters. Yet, CSSI is placed in serious jeopardy that it may have to take significant actions based on the subjective view of the agencies as to when those actions are triggered with respect to the supplemental parameters.

CSSI is willing to collect background information regarding these constituents over the next three years, but it cannot be subject to arbitrary determinations by the agencies as to what that data means.

For these reasons, CSSI suggests that it will submit the data it collects on supplemental parameters to the appropriate agency and, as specified in its Groundwater Monitoring Plan, use the data in the confirmation process provided under the regulations with regard to VOC's.

\* \* \*

I. Condition: IX.F.(7)

II. Issue: This condition arbitrarily requires CSSI to take certain actions including corrective action under 40 CFR § 264.100 with 90 days of a request from the agencies whenever it is "determined to be appropriate."

III. Proposed Change: Delete this condition.



IV. Reason/Rationale for Proposed Change: The agencies have no authority to impose this condition. They claim they can require CSSI to modify its detection monitoring program under 40 CFR Part 264 Subpart F and to implement the two Subpart F programs which they might require to be implemented. The agencies completely ignore the Subpart F steps which specifically detail and require, a self-implementing program for going from detection monitoring to either compliance monitoring or corrective action.

These requirements include that the owner/operator determine whether there is a statistically significant increase over background values for any parameter. If there is, he can either submit a permit modification for a compliance plan or demonstrate that a source other than a regulated unit caused the increase or that the increase resulted from a sampling, analysis, or evaluation error. [40 CFR § 264.98(i)]. Additionally, the regulations provide for a step process, including detection monitoring, then compliance monitoring if necessary, then corrective action if necessary. This provides more of an objective standard, giving CSSI notice as to its obligations. This condition, in contrast, indicates that the agencies may require either a compliance monitoring program or corrective action program whenever they choose to so direct.

This condition simply grants the agencies unfettered, standardless discretion to require CSSI to submit a plan to undertake what may be significant activities. The agencies have authority [see condition I.F.(2) for citations to such authority] to require CSSI to undertake specific activities but only if

certain conditions first exist. No such standards are present in this condition. The agencies may be authorized to require certain actions under certain circumstances, but such authority has not been, nor can it be, invoked in this situation.

\* \* \*

I. Condition: IX.G.(3)

II. Issue: This condition erroneously provides for extension of the 30-year post-closure period for any unit but not for the shortening of the period.

III. Proposed Change: Delete this condition.

IV. Reason/Rationale for Proposed Change: CSSI incorporates the Reason/Rationale from its comments on conditions II.L.(2) and II.L.(3).

I. Plates and Table: Plates 1 and 2 and Table 1

II. Issue: These Plates and Table are incorrect.

III. Proposed Change: Revise Plates 1 and 2 and Table 1 to reflect CSSI's Part B permit application and CSSI's comments on conditions IX.A.(3)(a) and IX.A.(3)(b).

IV. Reason/Rationale for Proposed Change: CSSI incorporates the Reason/Rationale from its comments on conditions IX.A.(1) and IX.A.(2) and the Reason/Rationale from its comments on conditions IX.A.(3)(a) and IX.A.(3)(b).

ATTACHMENT IV

Community Information Program

STATE OF OREGON  
DEPARTMENT OF ENVIRONMENTAL QUALITY

Community Information Program

Pertaining to:

Proposed EPA/DEQ Joint Permit No. ORD089452353

Chem-Security Systems, Inc.  
Hazardous Waste Treatment/Storage/Disposal Facility  
Gilliam County, Oregon

Background:

Chem-Security Systems, Inc. (CSSI), a subsidiary of Waste Management, Inc., operates a commercial hazardous waste treatment, storage and disposal facility which includes drum storage areas, surface impoundments, landfills and bulk liquid storage tanks.

The facility is located approximately 12 road miles south of the City of Arlington, Oregon. The land in the vicinity of the facility is primarily used for farming and raising livestock.

CSSI provides services for clients located primarily in the Pacific Northwest, Alaska and Hawaii, although waste has been received from other western states and Canada.

Wastes received at the site are regulated as hazardous under the Resource Conservation and Recovery Act (RCRA) or by state regulations. Also, PCB wastes regulated under the Toxic Substances Control Act (TSCA) are received and disposed of at the site. The facility does not accept explosive, radioactive or infectious waste.

In response to public comment and in order to promote communication between Chem-Security Systems, Inc., the Department of Environmental Quality (DEQ) and the public, this Community Information Program (CIP) has been developed by the DEQ.

Community Information Program Objectives:

The primary purpose of the Community Information Program is to provide pathways of communication between Chem-Security Systems, Inc., the Department of Environmental Quality and the public. In order to accomplish this purpose the DEQ has established several objectives for the CIP, as follows:

- ▶ Provide a forum for public input. Offer a chance for the public to make comments to CSSI, DEQ or other regulatory agencies that are involved in operations at the facility.
- ▶ Establish continuity of communication between the permanent residents of the area and CSSI or regulatory personnel.

Community Information Program Tools:

To achieve the CIP objectives, the DEQ will provide the following avenues for input:

- ▶ Informational meetings and open houses. These will be held at least annually, with additional meetings or open houses conducted as needed to meet the CIP objectives.
- ▶ Copies of the Narrative Inspection Reports from the DEQ semi-annual facility inspections will be filed in the Gilliam County Library after release of the report by the DEQ. Additional report copies will be available from the DEQ for interested individuals or groups upon request.
- ▶ Fact Sheets concerning significant issues including clarification of the regulatory process, and information on site inspections, permitting and enforcement will be published by the DEQ.
- ▶ The DEQ will maintain a mailing list of individuals and groups for Fact Sheets and Narrative Inspection Reports.
- ▶ The DEQ contact for information concerning the CSSI site is:

Paul D. Christiansen  
Senior Environmental Engineer  
Hazardous Waste Section  
(503) 229-5095

- ▶ DEQ files containing material which has not been classified as Confidential Business Information are open for public review, 8:00 a.m. to 5:00 p.m. weekdays, at the DEQ Headquarters, 8th floor, 811 SW Sixth, Portland, Oregon. Information may also be obtained by calling the DEQ at 1-800-452-4011.

**Conclusion:**

The DEQ Community Information Program was drafted in response to evidence presented by the public demonstrating the need for establishment of a communication system which includes regulatory agency participation. The annual meeting provides a vehicle for individuals or groups to communicate concerns to the DEQ. The mailing list, Narrative Inspection Reports, Fact Sheets and DEQ files establish a means of distributing information to interested parties.

It is anticipated that this CIP will continually evolve as issues surface, additional public comment is received and individuals or groups become involved in the process.

ATTACHMENT V

Letter to Gilliam County





## Department of Environmental Quality

811 SW SIXTH AVENUE, PORTLAND, OREGON 97204-1390 PHONE (503) 229-5696

February 23, 1988

Mr. Jim Lutz  
Road Superintendent  
Gilliam County  
221 S. Oregon Street  
Condon, OR 97823

Dear Mr. Lutz:

Enclosed, please find public comments which pertain to a possible safety issue under your jurisdiction.

During the course of an October 6, 1987 public hearing on the proposed issuance of a hazardous waste permit to Chem-Security Systems, Inc., Arlington, Oregon, we received comments from four persons pertaining to the condition of Cedar Springs Road between State 19 and the Chem-Security facility.

The commenters felt that the road was not up to the standard necessary to accommodate traffic to the facility.

Could you please respond back to us on these comments.

Sincerely,  
*Britt McKnight* For  
Jan Whitworth, Supervisor  
Hazardous Waste Section  
Hazardous and Solid Waste Division

FB:m  
SM1419  
Enclosures



U.S. ENVIRONMENTAL PROTECTION AGENCY  
REGION 10  
1200 SIXTH AVENUE  
SEATTLE, WASHINGTON 98101

REPLY TO HW-112  
ATTN OF:

MAR 11 1988

James E. Petersen, Chairman  
Oregon Environmental Quality Commission  
Portland, Oregon 99204

Re: Chem-Security Systems, Inc. Permit  
Environmental Protection Agency Facility No. ORD 089 452 353

Dear Mr. Petersen:

The Chem-Security Systems, Inc. (CSSI) permit is on the March 11, 1988, EQC agenda for signature and issuance. It has just come to our attention that a minor wording change is necessary in order for CSSI to be able to comply with this permit.

This change involves an alternative method for determining when groundwater monitoring wells must be redeveloped. The existing language in the permit specifies that specific capacity of the well be used as the criteria for redevelopment. Due to low yield of a number of the wells, this method may not be applicable in all cases.

The following is a revision to paragraphs 1 and 2 of permit condition IX.C.(3). The revised language is underlined to provide clarification.

"The Permittee shall maintain borehole integrity of each monitoring well and piezometer, as required by 40 CFR §264.97(c). For any existing monitoring well which has dedicated sampling equipment, the Permittee shall calculate either the specific capacity or the recovery rate of that well within 120 calendar days after the effective date of this permit. The specific capacity or the recovery rate shall then be recalculated for that well by July 1 of each even numbered year during the term of this permit. If, at any time, the specific capacity or the recovery rate of that well decreases by more than 20 percent of the original calculated value, that well shall be redeveloped and made operational or replaced prior to the next scheduled sampling event.

The Permittee shall calculate the specific capacity or the recovery rate for any new well constructed and equipped with dedicated sampling equipment within the term of this permit, within 120 calendar days after that well is available for sampling. The recalculation and redevelopment criteria, as specified above, for existing wells, shall then be followed by the Permittee."

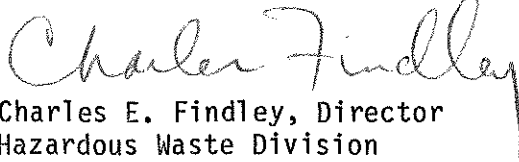
For your convenience, we have enclosed revised pages to the permit and the response to comments which includes this new language and the basis for the revision. We are committed to issuance of the highest quality permit possible and we appreciate your consideration of this last minute change.

This permit has already been signed and dated for EPA Region 10 by Charles Findley. This change will not require that the Mr. Findley sign the permit again.

Sincerely,

Frederic J. Hansen, Director  
Oregon Department of  
Environmental Quality

Sincerely,

  
Charles E. Findley, Director  
Hazardous Waste Division  
EPA Region 10

Enclosure

cc. Fred Bromfeld/Paul Christiansen, DEQ  
Terry Vernig, CSSI

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**IX.C. Monitoring Well/Piezometer Maintenance.**

- IX.C.(1) The Permittee shall maintain all monitoring wells and piezometers in good working order, making necessary repairs in a timely manner so that the sampling program is not hindered or delayed in any way. The Permittee shall maintain an adequate supply of replacement parts and repair equipment to ensure that each sampling event proceeds on schedule.
- IX.C.(2) The Permittee shall follow the procedures in the Inspection Plan, Table 3-2 and Figure A-3, which are included in Attachment 4 of this permit for routine inspection of monitoring wells and piezometers. Within 60 calendar days after completion of construction of all additional monitoring wells required by permit conditions IX.A.(1) and IX.A.(2), the Permittee shall revise and submit Figure A-3 to the Manager and the Administrator to reflect the additional monitoring wells.
- IX.C.(3) The Permittee shall maintain borehole integrity of each monitoring well and piezometer, as required by 40 CFR §264.97(c). For any existing monitoring well which has dedicated sampling equipment, the Permittee shall calculate either the specific capacity of that well or the recovery rate of that well within 120 calendar days after the effective date of this permit. The specific capacity or recovery rate shall then be recalculated for that well by July 1 of each even numbered year during the term of this permit. If, at any time, the specific capacity or the recovery rate of that well decreases by more than 20 percent of the original calculated value, that well shall be redeveloped and made operational or replaced prior to the next scheduled sampling event.

The Permittee shall calculate the specific capacity or the recovery rate for any new well constructed and equipped with dedicated sampling equipment within the term of this permit, within 120 calendar days after which that well is available for sampling. The recalculation and redevelopment criteria, as specified above for existing wells, shall then be followed by the Permittee.

128. IX.B.(7) and IX.B.(8) (p. 184)

DEQ and EPA agree to revise this condition to reflect the language proposed by CSSI. The revised wording is equally accurate and enforceable to the language contained in the draft permit condition.

129. IX.C.(2) (p. 185)

Refer to response number 118 in regard to the agencies' position on well placement IX.A.(1) and IX.A.(2). This condition will not be modified.

130. IX.C.(3) (p. 185)

DEQ and EPA agree to revise this permit condition to delete the requirement that all wells be sounded biennially. However, the language proposed by CSSI is not adequate to resolve this issue. The measurement of purge volumes may not provide confirmation of whether significant silting has occurred, because the necessary volumes can be removed over any time frame. The measurement of turbidity of a water sample has some relationship to potential siltation of the well, but it is not possible to know if the sediments are entering the well only during pumping or if sediments are accumulating in the screen below the pump.

This condition will be revised to specify that all piezometers be sounded on a biennial basis and either specific capacity or recovery rate will be measured for all monitoring wells on a biennial basis. The baseline for specific capacity or recovery rate will be determined within 120 calendar days after the effective date of permit issuance for existing wells and; for new wells, within 120 calendar days after each new well is available for sampling. If the specific capacity or recovery rate for any well decreases by more than 20% of the baseline or original value, the well must be redeveloped or otherwise repaired or replaced so that it is available for sampling during the next scheduled sampling event.

131. IX.C.(4)(a) (p. 186)

Refer to response number 130, regarding this issue. Rather than requiring monitoring wells to be redeveloped after one foot of sediment has accumulated, the agencies will revise this permit condition to require redevelopment of all monitoring wells in which the specific capacity or recovery rate drops by more than 20%. Since piezometers can be sounded, the one foot of sediment accumulation still provides a good basis for redevelopment. If CSSI is correct in its assertion that sediment can not accumulate in piezometers because they are not pumped, then redevelopment will not be an issue.

**Note:** Due to the rewording of permit condition IX.C.(3), conditions IX.C.(4), IX.C.(4)(a), and IX.C.(4)(b) have been deleted from the permit.

# Route Slip



Date 3-10

TO:	Name	Division/Section	Initial	Date
1.	FRED HANSEN			
2.	DEP			
3.	GM FLOOR			
4.				
5.	— HAND DELIVERY —			

<input type="checkbox"/>	as requested	<input type="checkbox"/>	investigate	<input type="checkbox"/>	per conversation
<input type="checkbox"/>	approval	<input type="checkbox"/>	justify	<input type="checkbox"/>	prepare reply
<input type="checkbox"/>	comment	<input type="checkbox"/>	necessary action	<input type="checkbox"/>	return with more detail
<input type="checkbox"/>	confer	<input type="checkbox"/>	initial and return	<input type="checkbox"/>	review and circulate
<input type="checkbox"/>	for your information	<input type="checkbox"/>	note and file	<input type="checkbox"/>	signature

FROM: Kurt B. [Signature]

Central Stores 97677

Phone No.

See Other Side

Recycled Paper



STATE OF OREGON

INTEROFFICE MEMO

TO: FRED HANSEN  
MIKE DOWNS, DEP

FROM: Kurt Burkholder, DOJ

SUBJECT: CSSI OWNERSHIP.

DATE: 3-10-88

THIS DEAL IS ACCEPTABLE BECAUSE IT PROTECTS STATE INTEREST BY (1) EXPRESSLY TRANSFERRING BURIED WASTE, & (2) NEUTRALIZING # Y ("IF ANY").

CSSI DID NOT AGREE TO SENTENCE I PROPOSED TO ADD TO # Y, BUT I THINK FINAL FORM PRESERVES STATUS QUO. (WE'LL LITIGATE LEASE, LIABILITY, ETC. LATER)

I CAN DISCUSS W/ YOU MORE FULLY TOMORROW. IF YOU APPROVE, WE'LL AIM TO EXECUTE @ 8:30.

SCHWABE, WILLIAMSON, WYATT, MOORE & ROBERTS  
ATTORNEYS AT LAW

Pacwest Center, Suites 1600-1800  
1211 S.W. Fifth Avenue  
Portland, Oregon 97204-3795  
(503) 222-9981

OFFICE OF THE DIRECTOR

CABLE ADDRESS "ROBCAL"  
TELEX 4937535 SWK UI  
TELECOPIER (503) 796-2900

March 10, 1988

HAND DELIVERY

Mr. Fred Hansen, Director  
Department of Environmental Quality  
811 S.W. Sixth Avenue  
Portland, Oregon 97207

Re: Chem-Security Systems, Inc.

Dear Mr. Hansen:

Enclosed please find a Bargain and Sale Deed in form acceptable to my clients.

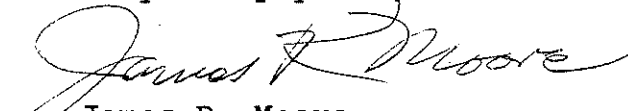
Kindly have this Deed executed and acknowledged on behalf of the Grantor.

We anticipate having a representative of the Grantee at Friday's meeting who would be able to execute the Deed. We will then take care of recording.

I presume that there will be someone at the meeting who can notarize my clients' signature. If that is not the case, please advise and I will make separate arrangements.

If you have any questions about this matter, please let me know.

Very truly yours,

  
James R. Moore

JRM:JDG:jm:4215  
Enclosure

cc: Mr. Kurt Burkholder  
(w/encl. - hand del.)



AFTER RECORDING,  
RETURN TO:

James R. Moore, Esq.  
Schwabe, Williamson & Wyatt  
1211 S.W. Fifth Avenue  
1600-1800 Pacwest Center  
Portland, Oregon 97204

UNTIL A CHANGE IS REQUESTED,  
ALL TAX STATEMENTS SHALL BE SENT TO:

Chemical Waste Management, Inc.  
c/o Roger Zehntner, Staff  
Vice President  
3003 Butterfield Road  
Oak Brook, Illinois 60521

STATUTORY BARGAIN AND SALE DEED

The State of Oregon, acting through the Department of Environmental Quality, Grantor, conveys to Chem-Security Systems, Inc., a Washington corporation, Grantee, the following described real property including waste buried thereon:

See Exhibit "A" which is attached hereto and incorporated herein by this reference (herein the "Property").

THIS INSTRUMENT WILL NOT ALLOW USE OF THE PROPERTY DESCRIBED IN THIS INSTRUMENT IN VIOLATION OF APPLICABLE LAND USE LAWS AND REGULATIONS. BEFORE SIGNING OR ACCEPTING THIS INSTRUMENT, THE PERSON ACQUIRING FEE TITLE TO THE PROPERTY SHOULD CHECK WITH THE APPROPRIATE CITY OR COUNTY PLANNING DEPARTMENT TO VERIFY APPROVED USES.

The true and actual consideration for the grant and acceptance of this conveyance is \$0. Other property or value is the whole consideration. Such other property or value consists of the following agreements of the parties, all of which are a part of this conveyance. The parties agree as follows:

1. Oregon law previously required Grantee and its predecessor in title, Chem-Nuclear Systems, Inc., a Washington corporation, to convey the Property to Grantor. Contemporaneously with the conveyance of portions of the Property to Grantor, Grantor leased such portions of the Property to Grantee or its predecessor for the purpose of using the same for the treatment, storage and disposal of hazardous materials, pursuant to a Lease dated April 20, 1976 and amendments 1 through 9 thereto (herein collectively the "Lease").

2. Oregon law no longer requires that Grantor hold fee title to the Property. Grantor desires that Grantee accept a conveyance of the Property from Grantor and that the Lease be terminated.

3. Effective upon execution and delivery of this Deed by Grantor, the Lease is terminated.

4. The effectiveness of this conveyance shall not waive, alter or terminate the obligations, responsibilities and liabilities of Grantor, if any, that arose or may arise by reason of Grantor being an owner or lessor of the Property including, but not limited to, obligations, responsibilities and liabilities, if any, that exist or may exist for materials that were buried on the Property by Grantee or Grantee's predecessor during the term of Grantor's ownership. Such obligations, responsibilities and liabilities, if any, survive termination of Grantor's ownership and termination of the Lease.

5. This Deed releases that certain Memorandum of License recorded February 23, 1979 at recorder's number M-60-239, records of Gilliam County, Oregon.

6. This Deed shall be effective as a conveyance of the Property only upon execution and delivery by Grantor, and execution and recording by Grantee.

IN WITNESS WHEREOF, each of the parties has caused this Deed to be executed as of the respective date indicated and warrants that each has authorized the individual signing this Deed on its behalf to do so.

STATE OF OREGON

By: Department of Environmental  
Quality

By: \_\_\_\_\_  
Its: \_\_\_\_\_  
Date: \_\_\_\_\_

CHEM-SECURITY SYSTEMS, INC.,  
a Washington corporation

By: \_\_\_\_\_  
Its: \_\_\_\_\_  
Date: \_\_\_\_\_

STATE OF \_\_\_\_\_ )  
County of \_\_\_\_\_ ) ss.

On this \_\_\_ day of \_\_\_\_\_, 1988, personally appeared \_\_\_\_\_, the \_\_\_\_\_ of the Department of Environmental Quality, and acknowledged the foregoing instrument, on behalf of the Department of Environmental Quality, on behalf of the State of Oregon, as its voluntary act and deed.

NOTARY PUBLIC FOR \_\_\_\_\_  
My Commission Expires: \_\_\_\_\_

STATE OF \_\_\_\_\_ )  
County of \_\_\_\_\_ ) ss.

On this \_\_\_ day of \_\_\_\_\_, 1988, personally appeared \_\_\_\_\_, the \_\_\_\_\_ of Chem-Security Systems, Inc., a Washington corporation, and acknowledged the foregoing instrument, on behalf of such corporation, as its voluntary act and deed.

NOTARY PUBLIC FOR \_\_\_\_\_  
My Commission Expires: \_\_\_\_\_

50 FOOT WIDE ROAD DESCRIPTION  
FROM COUNTY ROAD TO  
CHEM-NUCLEAR SERVICES, INC.

A 50 foot wide road over and across the North 1/2 of the North 1/2 of Section 36, T. 2 N., R. 20 E., W.M., and the East 1/2 of Section 25, T. 2 N., R. 20 E., W.M., Gilliam County, Oregon, being 25 feet on each side of the following described centerline:

Beginning at a point on the centerline of an existing County road in the said North 1/2 of the North 1/2 of Section 36, said point being South 1106.17 feet and West 30.61 feet from the Northeast corner of said Section 36; thence North  $14^{\circ} 14' 29''$  West 46.36 feet; thence on a 334.90 foot radius curve left 135.77 feet (the long chord which bears North  $25^{\circ} 51' 19''$  West 134.84 feet); thence North  $37^{\circ} 28' 09''$  West 19.90 feet; thence on an 807.70 foot radius curve left 226.43 feet (the long chord which bears North  $45^{\circ} 30' 00''$  West 225.68 feet); thence North  $53^{\circ} 31' 52''$  West 24.30 feet; thence on a 984.51 foot radius curve left 257.82 feet (the long chord of which bears North  $61^{\circ} 01' 59''$  West 257.08 feet); thence North  $68^{\circ} 32' 07''$  West 52.99 feet; thence on a 594.63 foot radius curve left 216.59 feet (the long chord of which bears North  $78^{\circ} 58' 13''$  West 215.40 feet); thence North  $89^{\circ} 24' 19''$  West 426.58 feet; thence on a 368.46 foot radius curve right 169.78 feet (the long chord of which bears North  $76^{\circ} 12' 18''$  West 168.28 feet); thence on a 252.42 foot radius curve right 149.49 feet (the long chord of which bears North  $46^{\circ} 02' 18''$  West 147.32 feet); thence North  $29^{\circ} 04' 19''$  West 65.25 feet; thence on a 153.89 foot radius curve right 117.88 feet (the long chord of which bears North  $07^{\circ} 07' 41''$  West 115.02 feet); thence on a 304.69 foot radius curve right 121.43 feet (the long chord which bears North  $26^{\circ} 13' 57''$  East 120.62 feet); thence North  $37^{\circ} 38' 57''$  East 213.24 feet; thence on a 1507.77 foot radius curve right 219.41 feet (the long chord of which bears North  $41^{\circ} 49' 05''$  East 219.22 feet); thence North  $45^{\circ} 59' 13''$  East 24.09 feet; thence on a 614.65 foot radius curve left 130.88 feet (the long chord of which bears North  $39^{\circ} 53' 13''$  East 130.63 feet); thence North  $33^{\circ} 47' 13''$  East 48.23 feet

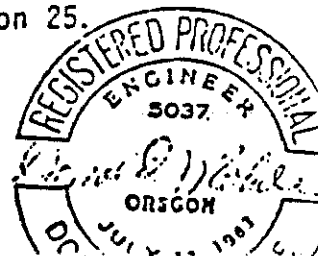
50 FOOT WIDE ROAD DESCRIPTION  
FROM COUNTY ROAD TO  
CHLM-NUCLEAR SERVICES, INC.

Page 2

thence on a 311.37 foot radius curve right 155.76 feet (the long chord of which bears North 48° 07' 03" East 154.14 feet); thence North 62° 26' 54" East 55.17 feet; thence on a 129.09 foot radius curve left 149.13 feet (the long chord which bears North 29° 21' 09" East 140.98 feet); thence on a 55.13 foot radius curve left 65.53 feet (the long chord of which bears North 37° 47' 50" West 61.74 feet); thence North 71° 51' 04" West 9.46 feet thence on a 91.77 foot radius curve left 93.98 feet (the long chord of which bears South 78° 48' 43" West 89.92 feet); thence South 49° 28' 29" West 144.37 feet; thence on a 1265.01 foot radius curve right 283.79 feet (the long chord of which bears South 55° 54' 05" West 283.19 feet); thence South 62° 19' 42" West 277.76 feet; thence on a 1384.56 foot radius curve left 210.24 feet (the long chord of which bears South 57° 58' 42" West 210.03 feet); thence South 53° 37' 42" West 335.44 feet; thence on a 368.12 foot radius curve right 253.92 feet (the long chord of which bears South 73° 46' 42" West 253.62 feet); thence North 86° 04' 18" West 215.60 feet; thence on a 126.63 foot radius curve right 190.83 feet (the long chord of which bears North 42° 54' 01" West 173.28 feet); thence North 00° 16' 15" East 1268.04 feet; thence North 14° 01' 07" West 50.60 feet; thence North 00° 16' 14" East 583.64 feet; thence on a 235.31 foot radius curve right 229.34 feet (the long chord of which bears North 28° 11' 29" East 220.37 feet); thence North 56° 06' 44" East 147.83 feet; thence on a 1292.45 foot radius curve left 160.65 feet (the long chord of which bears North 52° 33' 05" East 160.54 feet); thence North 48° 59' 26" East 182.31 feet; thence on a 163.12 foot radius curve left 97.09 feet (the long chord of which bears North 31° 56' 21" East 95.66 feet); thence North 14° 53' 16" East 257.38 feet to the terminus of this description, said point of terminus being North 87.43 feet and West 1979.09 feet from the East 1/4 corner of said Section 25.

Contains 9.29 Acres, more or less.

**EXHIBIT A, PAGE 2**



50 FOOT WIDE ROAD DESCRIPTION  
TO TRENCH 1 AND TRENCH 2  
FOR  
CHEM-NUCLEAR SERVICES, INC.

A 50 foot wide road over and across a portion of the Southwest 1/4 of the Southeast 1/4 of Section 25, T. 2 N., R. 20 E., W.M., Gilliam County, Oregon, being 25 feet on each side of the following described centerline:

Beginning at a point that is South 1368.31 feet and West 2578.92 feet from the East 1/4 corner of said Section 25; thence South 83° 34' 51" East 437.00 feet to the terminus of this road description, said point of terminus being South 1417.17 feet and West 2144.05 feet from the East 1/4 corner of said Section 25.

Contains 0.50 acre, more or less.



Property Description  
For  
Chem-Nuclear Service, Inc.

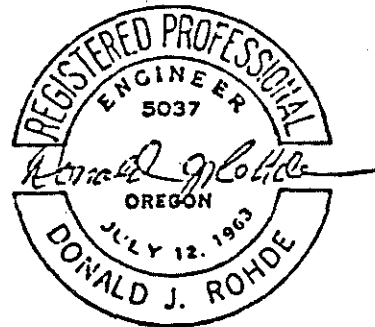
Chemical Disposal Area

Tract No. 1

A tract of land situated in the S. 1/2 of the S. E. 1/4 of Section 25, T. 2 N., R. 20 E., W.M., Gilliam County, Oregon, more particularly described as follows:

Commencing at the S. 1/4 corner of said Section 25; thence N. 00°17'05" E., along the North-South centerline of said Section 25, 1,320.62 feet to the N. W. corner of said S. 1/2 of the S. E. 1/4 of Section 25; thence S. 89°51'42" E., along the North line of said S. 1/2 of the S. E. 1/4 of Section 25, 1,259.25 feet; thence at right angles S. 00°03'18" W., 77.00 feet to a 5/8 inch iron rod and the true point of beginning of this description; thence continuing S. 00°08'18" W., 848.00 feet to a 5/8 inch iron rod; thence N. 89°51'42" W., 800.00 feet to a 5/8 inch iron rod; thence N. 00°08'18" E., 853.00 feet to a 5/8 inch iron rod; thence S. 89°30'12" E., 800.00 feet to the true point of beginning.

Containing 15.62 acres, more or less.



July 9, 1974  
W.O. #5088

PROPERTY DESCRIPTION

for

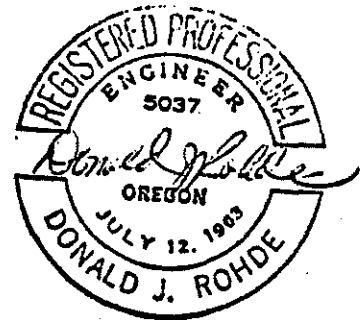
CHEM-NUCLEAR SYSTEMS, INC.

Evaporation Ponds Tract

A tract of land situated in the N. 1/2 of the S.E. 1/4 of Section 25, T.2 N., R.20 E., W.M., Gilliam County, Oregon, more particularly described as follows:

Commencing at the S. 1/4 corner of said Section 25; thence N.  $00^{\circ} 17' 05''$  E., along the North-South centerline of said Section 25, 1823.78 ft.; thence S.  $89^{\circ} 51' 42''$  E., 470.36 ft. to the true point of beginning of this description; thence N.  $88^{\circ} 33' 02''$  E., 200.00 ft.; thence N.  $01^{\circ} 26' 58''$  W., 250.00 ft.; thence S.  $88^{\circ} 33' 02''$  W., 200.00 ft.; thence S.  $01^{\circ} 26' 58''$  E., 250.00 ft to the true point of beginning.

Containing 1.15 acres more or less.





PROPERTY DESCRIPTION  
for  
CHEM-NUCLEAR SYSTEMS, INC.

Evaporation Pond Tract

A tract of land situated in the North 1/2 of the Southeast 1/4 of Section 25, Township 2 North, Range 20 East, Willamette Meridian, Gilliam County, Oregon, being more particularly described as follows:

Commencing at the South 1/4 Corner of said Section 25; thence North 00°17'05" East along the north-south centerline of said Section 25 a distance of 2,029.07 feet; thence South 89°42'55" East 314.41 feet; thence North 24°56'52" East 281.78 feet to the true point of beginning of this description; thence North 88°20'21" East 245.54 feet; thence South 01°19'53" West 474.27 feet; thence South 88°18'57" West 197.56 feet; thence North 04°28'03" West 474.27 feet to the true point of beginning of this description.

Contains 2.41 acres, more or less.

REGISTERED  
PROFESSIONAL  
LAND SURVEYOR

*Donald J. Rohde*

OREGON  
SEPT. 23, 1977  
DONALD J. ROHDE  
1313

*Done*

PROPERTY DESCRIPTION

for

CHEM-NUCLEAR SYSTEMS, INC.

50' Wide Road to Evaporation Pond

A 50 foot wide road over and across a portion of the North 1/2 of the Southeast 1/4 of Section 25, Township 2 North, Range 20 East, Willamette Meridian, Gilliam County, Oregon, the aforesaid road being 25 feet on either side of the following described centerline.

Commencing at the South 1/4 Corner of said Section 25; thence North 00°17'05" East along the north-south centerline of said Section 25 a distance of 1,909.07 feet; thence South 89°42'55" East 12.50 feet to the centerline of the existing access road and the true point of beginning of this description, said point also being the point of curve of the existing access road; thence along the arc of a 224.99 foot radius curve right 220.48 feet (the long chord of which bears North 28°20'39" East 211.76 feet); thence North 56°25'05" East 185.63 feet; thence on a 542.42 foot radius curve left 146.74 feet (the long chord of which bears North 48°40'05" East 146.29 feet); thence North 40°55'05" East 51.48 feet; thence on a 76.00 foot radius curve right 182.28 feet (the long chord of which bears South 70°22'18" East 141.63 feet) to a point on the northerly line of the evaporation pond site and terminus of this description, said point of terminus being North 88°20'21" East 110.5 feet from the Northwest corner of said evaporation pond, said point further being North 2,884.0 feet and East 443.3 feet from the South 1/4 Corner of said Section 25.

Contains 0.90 acre, more or less.

REGISTERED  
PROFESSIONAL  
LAND SURVEYOR

*Donald J. Rohde*

OREGON  
EFF. 23. 1977  
DONALD J. ROHDE  
1313

W.O. #5240  
June 26, 1979

RECEIVED  
OCT 18 1979  
SOLID WASTE SECTION

PROPERTY DESCRIPTION  
For  
CHEM-NUCLEAR SERVICE INC. EVAPORATING  
POND AREA

A tract of land situated in the west one-half of the southeast one-quarter of Section 25, Township 2 North, Range 20 East, Willamette Meridian, Gilliam County, Oregon, being more particularly described as follows:

Commencing at the south one-quarter corner of said Section 25; thence N.  $00^{\circ}17'05''$  E. 1,320.62 feet to the northwest corner of the southwest one-quarter of the southeast one-quarter of said Section 25; thence S.  $89^{\circ}51'42''$  E. along the north line of said southwest one-quarter of the southeast one-quarter of said Section 25, 459.25 feet; thence at right angles S.  $00^{\circ}08'18''$  E. 72 feet to the point of beginning of this description; [thence N.  $52^{\circ}26'48''$  E. 222.22 feet; thence on a 318.5 foot radius curve left 177.19 feet (the long chord of which bears N.  $36^{\circ}30'33''$  E. 174.91 feet); thence N.  $20^{\circ}34'18''$  E. 98.21 feet; thence on a 400.5 foot radius curve left 81.75 feet (the long chord of which bears N.  $14^{\circ}43'26''$  E. 81.61 feet); thence N.  $08^{\circ}52'33''$  E. 95.46 feet; thence N.  $35^{\circ}53'01''$  E. 148.26 feet; thence N.  $67^{\circ}35'50''$  E. 27.5 feet; thence N.  $41^{\circ}24'48''$  E. 91.25 feet; thence N.  $89^{\circ}53'31''$  E. 170.93 feet; thence S.  $00^{\circ}04'35''$  E. 476.62 feet; thence N.  $89^{\circ}30'12''$  W. 694.85 feet to the point of beginning.]

Contains 6.87 acres, more or less.

Note: The reference above to "thence S.  $00^{\circ}04'35''$  E. 476.62 feet" contains typographical errors and was originally, and is now, intended to read "thence S.  $00^{\circ}04'33''$  E. 746.62 feet".

CHEM NUCLEAR SERVICES, INC.

DESCRIPTION FOR  
CHEMICAL DISPOSAL AREA - TRACT NO. 3

A TRACT OF LAND SITUATED IN THE SOUTH ONE-HALF OF THE SOUTHEAST ONE-QUARTER OF SECTION 25, TOWNSHIP 2 NORTH, RANGE 20 EAST, WILLAMETTE MERIDIAN, GILLIAM COUNTY, OREGON, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCING AT THE SOUTH ONE-QUARTER CORNER OF SAID SECTION 25; THENCE NORTH 00° 17' 05" EAST ALONG THE NORTH-SOUTH CENTERLINE OF SAID SECTION 25, 1,320.62 FEET TO THE NORTHWEST CORNER OF THE SAID SOUTH ONE-HALF OF THE SOUTHEAST ONE-QUARTER OF SECTION 25; THENCE SOUTH 89° 51' 42" EAST ALONG THE NORTH LINE OF THE SAID SOUTH ONE-HALF OF THE SOUTHEAST ONE-QUARTER OF SECTION 25, 1,259.25 FEET; THENCE AT RIGHT ANGLES SOUTH 00° 08' 18" WEST 77 FEET TO A 5/8" IRON ROD AND THE TRUE POINT OF BEGINNING OF THIS DESCRIPTION; THENCE CONTINUING SOUTH 00° 08' 18" WEST 848.00 FEET TO A 5/8" IRON ROD; THENCE NORTH 55° 47' 36" EAST 513.94 FEET TO A 5/8" IRON ROD; THENCE SOUTH 89° 51' 42" EAST 490.72 FEET TO A 5/8" IRON ROD; THENCE NORTH 00° 08' 18" EAST 552.28 FEET TO A 5/8" IRON ROD; THENCE NORTH 89° 30' 13" WEST 915.02 FEET TO THE POINT OF BEGINNING.

CONTAINS 13.07 ACRES, MORE OR LESS.

REGISTERED  
PROFESSIONAL  
LAND SURVEYOR

*Donald J. Rohoe*

OREGON  
SEPT. 23, 1977  
DONALD J. ROHOE  
1313

Area for Tr. 879

Property Description

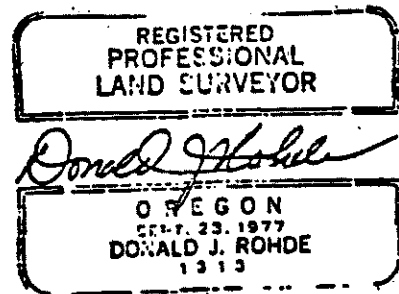
Chem-Nuclear Systems Inc.

Ponds 5, 6, 8 and 9 Tract

A tract of land situated in the west one-half of the southeast one-quarter of Section 25, Township 2 North, Range 20 East, Willamette Meridian, Gilliam County, Oregon more particularly described as follows:

Commencing at the south one-quarter corner of said Section 25; thence North  $00^{\circ}17'05''$  East along the north-south centerline of said Section 25 a distance of 1,320.62 feet to the northwest corner of the southwest one-quarter of the southeast one-quarter of said Section 25; thence South  $89^{\circ}51'42''$  East along the north line of said southwest one-quarter of the southeast one-quarter of said Section 25 a distance of 459.25 feet; thence at right angles South  $00^{\circ}08'18''$  West 72 feet to the true point of beginning of this description; thence South  $89^{\circ}30'12''$  East 694.85 feet; thence North  $00^{\circ}04'33''$  West 977.47 feet; thence North  $87^{\circ}22'57''$  West 472.05 feet; thence South  $01^{\circ}19'53''$  West 424.67 feet; thence South  $20^{\circ}27'45''$  West 606.74 feet to the point of beginning.

Contains 12.26 acres, more or less.



PROPERTY DESCRIPTION  
FOR A 50 FOOT WIDE ROAD  
Chem-Nuclear Services, Inc.

A strip of land 50 feet wide across Northwest 1/4 of the Northwest 1/4 of Section 31, Township 2 North, Range 21 East, Willamette Meridian, Gilliam County, Oregon, being more particularly described as follows:

A strip of land 25 feet wide on each side (when measured at right angles) of the following described centerline:

Commencing at the Northwest corner of said Section 31; thence South 00° 02' 00" West along the West line of said Section 31 a distance of 705.72 feet to the point of beginning and centerline of the following described road; thence leaving said West line of said Section 31, South 74° 46' 20" East 304.07 feet; thence along the arc of a curve to the right with a radius of 180.00 feet 82.75 feet (the long chord of which bears South 61° 36' 05" East 82.03 feet); thence South 48° 25' 50" East 274.48 feet; thence along the arc of a curve to the right with a radius of 60 feet 47.84 feet (the long chord of which bears South 20° 35' 20" East 46.58 feet); thence South 02° 44' 50" East 24.73 feet, more or less, to the centerline of Cedar Springs County Road and terminus of this description.

SUBJECT TO: All easements and rights-of-way of record.

Contains 0.81 acre, more or less.



JUL 23 1980

July 23, 1980  
W.O. 5240

PROPERTY DESCRIPTION

Chem-Nuclear Systems Inc.  
Evaporation Pond No. 7

A tract of land situated in the north one-half of the southeast one-quarter of Section 25, Township 2 North, Range 20 East, W.M., Gilliam County, Oregon more particularly described as follows:

Commencing at the south one-quarter corner of said Section 25; thence North  $00^{\circ} 17' 05''$  East along the north-south centerline of said Section 25 a distance of 2,350.51 feet; thence South  $89^{\circ} 42' 55''$  East 558.60 feet to the true point of beginning of this description; thence North  $06^{\circ} 36' 42''$  East 139.75 feet; thence South  $87^{\circ} 19' 33''$  East 141.28 feet; thence South  $04^{\circ} 29' 30''$  West 128.95 feet; thence South  $88^{\circ} 34' 34''$  West 147.16 feet to the true point of beginning.

Contains 0.44 acre, more or less.

REGISTERED  
PROFESSIONAL  
LAND SURVEYOR

*Donald J. Rohde*

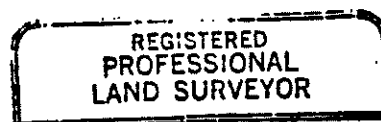
OREGON  
SEPT. 23, 1977  
DONALD J. ROHDE  
1313

PROPERTY DESCRIPTION  
FOR  
CHEM-NUCLEAR SYSTEMS INCORPORATED  
BIO FARM AREA

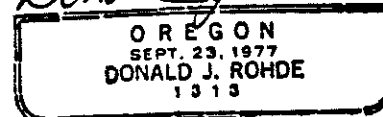
A tract of land situated in the southwest one-quarter of the northeast one-quarter and the northwest one-quarter of the southeast one-quarter of Section 25, Township 2 North, Range 20 East, Willamette Meridian, Gilliam County, Oregon, more particularly described as follows:

Commencing at the south one-quarter corner of said Section 25; thence North  $00^{\circ}17'05''$  East along the north-south centerline of said Section 25 a distance of 2,870.28 feet; thence South  $89^{\circ}42'55''$  East 812.12 feet to the true point of beginning of this description; thence South  $13^{\circ}46'54''$  West 141.95 feet; thence South  $06^{\circ}05'54''$  West 161.83 feet; thence South  $18^{\circ}42'09''$  East 155.62 feet; thence South  $68^{\circ}57'42''$  East 84.69 feet; thence North  $14^{\circ}38'48''$  East 285.71 feet; thence North  $30^{\circ}04'39''$  West 84.97 feet; thence North  $21^{\circ}30'39''$  West 115.10 feet; thence North  $73^{\circ}19'33''$  West 68.39 feet to the true point of beginning.

Contains 1.44 acres, more or less.



*Donald J. Rohde*





PROPERTY DESCRIPTION  
FOR  
VARIABLE WIDTH ROAD FOR CHEM-NUCLEAR SERVICES, INC.

A strip of land of variable width across a portion of the north one-half of the northeast one-quarter of Section 36, Township 2 North, Range 21 East, Willamette Meridian, Gilliam County, Oregon, being more particularly described as follows:

Beginning with a strip of land 50 feet wide being 25 feet on each side (when measured at right angles) of the following described centerline:

Commencing at the north one-quarter corner of said Section 36; thence South  $89^{\circ}46'30''$  East along the north line of said Section 36 a distance of 25 feet to the point of beginning and centerline of the following described road; thence on a 150 foot radius curve left 185.88 feet (the long chord of which bears South  $35^{\circ}12'55''$  East a distance of 174.21 feet); thence beginning a 200 foot wide strip of land being 100 feet on each side of the following continuous described centerline; thence South  $70^{\circ}42'55''$  East a distance of 814.12 feet; thence continuing with a 250 foot wide strip of land being 150 feet on the southerly side (when measured at right angles) and 100 feet on the northerly side (when measured at right angles) continuing South  $70^{\circ}42'55''$  East a distance of 431.80 feet; thence on a 400 foot radius curve left 128.97 feet (the long chord of which bears South  $79^{\circ}57'07''$  East a distance of 128.41 feet) to the centerline of an existing 50 foot wide road and terminus of this description.

Contains 7.17 acres, more or less.



*Donald J. Rohde*

A rectangular stamp with a double-line border. The text inside reads "OREGON SEPT. 23, 1977 DONALD J. ROHDE 1313" in all caps.

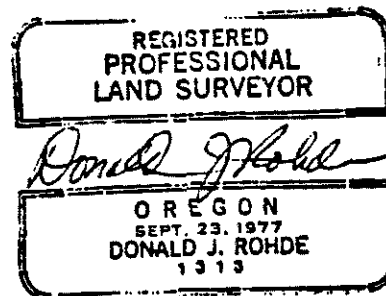
PROPERTY DESCRIPTION

Chemical Disposal Area - Trench No. 10

A tract of land situated in the north one-half of the southeast one-quarter of Section 25, Township 2 North, Range 20 East, Willamette Meridian, Gilliam County, Oregon, being more particularly described as follows:

Commencing at the south one-quarter corner of said Section 25; thence North  $00^{\circ}17'05''$  East along the north-south centerline of said Section 25 a distance of 1,320.62 feet to the southwest corner of the said north one-half of the southeast one-quarter of Section 25; thence South  $89^{\circ}51'42''$  East along the south line of the said north one-half of the southeast one-quarter of Section 25 a distance of 1,474.25 feet to the true point of beginning of this description; thence continuing South  $89^{\circ}51'42''$  East a distance of 600.00 feet; thence at right angles North  $00^{\circ}08'18''$  East a distance of 400.00 feet; thence North  $89^{\circ}51'42''$  West a distance of 600.00 feet; thence South  $00^{\circ}08'18''$  West a distance of 400.00 feet to the true point of beginning.

Contains 5.51 acres, more or less.



April 13, 1984

PROPERTY DESCRIPTION  
for  
VARIABLE WIDTH ROAD  
for  
CHEM-SECURITY SYSTEMS, INC.

REGISTERED  
PROFESSIONAL  
LAND SURVEYOR  
*Donald J. Rohoe*  
OREGON  
SEPT. 23, 1977  
DONALD J. ROHOE  
1 3 1 8

A strip of land of variable width across a portion of the Northwest one-quarter of the Northwest one-quarter of Section 31, Township 2 North, Range 21 East, Willamette Meridian and across the North one-half of the Northeast one-quarter of Section 36, Township 2 North, Range 20 East, Willamette Meridian and across a portion of the South one-half of the Southeast one-quarter of Section 25, Township 2 North, Range 20 East, Willamette Meridian, Gilliam County, Oregon, being more particularly described as follows:

Beginning at the centerline of Cedar Springs County Road, said point being South 1,075.00 feet and East 587.93 feet from the northwest corner of said Section 31; thence North 02°44'50" West 24.73 feet; thence along the arc of a 60.00 foot radius curve left 47.84 feet (the long chord of which bears North 20°35'20" West 46.58 feet); thence North 48°25'50" West 274.48 feet; thence along the arc of a 180.00 foot radius curve left 82.75 feet (the long chord of which bears North 61°36'05" West 82.03 feet); thence North 74°46'20" West 307.83 feet to an intersection with the section line between said Section 31 and Section 36, said point being South 00°20'21" West a distance of 704.72 feet from the northwest corner of said Section 31; thence continuing North 74°46'20" West 363.54 feet; thence along the arc of a 1,000.00 foot radius curve left 251.63 feet (the long chord of which bears North 81°58'50" West 250.96 feet); thence North 89°11'20" West 574.27 feet; thence beginning a 250 foot strip of land, being 150 feet southerly (when measured at right angles) and 100 feet northerly (when measured at right angles) on each side of the following continuous described centerline; thence on a 400 foot radius curve right 128.97 feet (the long chord of which bears North 79°57'07" West a distance of 128.41 feet); thence North 70°42'55" West 431.80 feet; thence continuing with a 200 foot wide strip of land, being 100 feet southerly (when measured at right angles) and 100 feet northerly (when measured at right angles) on each side of the following continuous described centerline North 70°42'55" West 814.12 feet; thence continuing with a 50 wide strip of land being 25 feet on each side of the following continuous described centerline, along the arc of a 150 radius curve right 185.88 feet (the long chord of which bears North 35°12'55" West a distance of 174.21 feet) to the intersection with the north line of said Section 36, said point being South 89°46'30" East along the north line of said Section 36 a distance of 25.00 feet; thence continuing along the said centerline North 00°17'05" East parallel with the north-south centerline of said Section 25 and being 25 feet parallel and easterly of said line 1,320.62 feet to the terminus of this description, said point of terminus being South 89°51'42" East a distance of 25.00 feet from the northwest corner of the South one-half of the Southeast one-quarter of said Section 25.

Contains 10.90 acres, more or less

STATE OF OREGON }  
GILLIAM COUNTY }

THESE INSTRUMENTS HAVE BEEN RECORDED IN ACCORDANCE WITH THE PUBLIC RECORDS ACT, ORS 309.010, AND THE INSTRUMENTS AS INSTRUMENTS OF RECORD OR ON FILE IN THE COUNTY.

151 Christopher N. Childs  
GILLIAM COUNTY CLERK

5/24/84 *R. Jamison*

EXHIBIT A PAGE 16

15  
Work Order No. 6435-H  
May 23, 1986

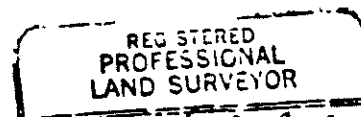
PROPERTY DESCRIPTION  
for  
CHEM-SECURITY SYSTEMS, INC.  
Landfill L-13

A tract of land in the Southeast one-quarter of the Southeast one-quarter of Section 25, and the Northeast one-quarter of the Northeast one-quarter of Section 36, Township 2 North, Range 20 East, Willamette Meridian, Gilliam County, Oregon, more particularly described as follows:

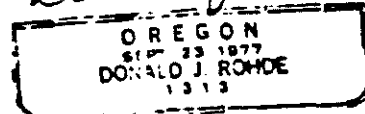
Commencing at a 5/8 inch iron rod, said point being North 7.00 feet and West 63.16 feet from the Southeast corner of said Section 25; thence South 46°01'31" West 91.78 feet to a 5/8 inch iron rod; thence South 70°01'31" West 98.63 feet to a 5/8 inch iron rod; thence 82°39'45" West 173.49 feet to a 5/8 inch iron rod; thence South 89°13'46" West 430.87 feet to a 5/8 inch iron rod; thence South 84°42'09" West 149.77 feet to a 5/8 inch iron rod; thence North 70°32'05" West 61.44 feet to a 5/8 inch iron rod; thence North 28°03'01" West 66.00 feet to a 5/8 inch iron rod; thence North 02°58'54" East 85.54 feet to a 5/8 inch iron rod; thence North 21°19'00" East 299.02 feet to a 5/8 inch iron rod; thence North 10°38'42" East 282.69 feet to a 5/8 inch iron rod; thence North 77°03'49" East 35.19 feet to a 5/8 inch iron rod; thence North 11°27'45" East 95.81 feet to a 5/8 inch iron rod; thence North 45°16'42" East 83.50 feet to a 5/8 inch iron rod; thence North 77°42'10" East 61.06 feet to a 5/8 inch iron rod; thence North 00°08'18" East 79.68 feet to the south boundary of Trench L-8; thence South 89°51'42" East along the said south boundary and extension of said boundary 661.03 feet; thence South 03°26'40" East 372.15 feet to a 5/8 inch iron rod; thence South 00°39'43" West 231.41 feet to a 5/8 inch iron rod; thence South 02°14'40" East 164.09 feet to a 5/8 inch iron rod; thence South 20°55'33" West 70.80 feet to the point of beginning.

Bearings based on Bearing System established for the East line of the Southeast one-quarter of said Section 25.

EXHIBIT A, PAGE 17



*Donald J. Rohde*



RON WYDEN, OREGON  
CHAIRMAN

PETER A. DIFAZIO, OREGON  
DAVID E. PRICE, NORTH CAROLINA  
THOMAS A. LUKE, OHIO  
ROMANO L. MAZZOLI, KENTUCKY  
JIM COOPER, TENNESSEE  
JIM OLIN, VIRGINIA  
FLOYD H. FLAKE, NEW YORK

100th Congress

United States House of Representatives  
Committee on Small Business  
Subcommittee on Regulation and  
Business Opportunities  
B-363 Rayburn House Office Building  
Washington, DC 20515

WM B. BROOMFIELD, MICHIGAN  
JAN MEYERS, KANSAS  
J. ALEX McMILLAN, NORTH CAROLINA  
LARRY COMBEST, TEXAS  
RICHARD H. BAKER, LOUISIANA

RICHARD SHAPIRO  
SUBCOMMITTEE STAFF DIRECTOR  
202-224-7787

ANTHONY J. POWELL  
MINORITY SUBCOMMITTEE PROFESSIONAL  
STAFF MEMBER  
202-224-6136

July 29, 1987

Mr. Charles A. Bowsher  
Comptroller General of the United States  
General Accounting Office  
441 G Street, NW  
Washington, DC 20548

Dear Mr. Bowsher:

I would like the General Accounting Office to evaluate the success of federal efforts under the Clean Water Act to improve water quality of rivers in areas undergoing urban and suburban growth.

The nation has spent billions of tax dollars on water pollution regulation and sewage treatment. I am concerned that these well-intended efforts are not achieving the Clean Water Act's goal of fishable, swimmable waters. As a result, we may find ourselves forced to adopt stringent new pollution regulations, regulations which may seriously hamper economic growth among businesses of all sizes.

The Tualatin River, in Oregon, presents the problem in microcosm. We have spent some \$100 million in federal, state, and local funds on sewage treatment facilities there during the past fifteen years. Despite these efforts, the river is in deplorable condition, downstream residents live with poor water quality, regulators have been sued to impose stricter limits on discharges, and planners are contemplating spending millions more on pollution abatement.

I would like the GAO to review the federal effort to control water pollution, using as case studies the Tualatin and one or two other small rivers with water quality problems, to be chosen in consultation with my staff. In particular, I would like you to examine the following areas:

(1) The scope of the problem. How are the water quality problems in these rivers, and the accompanying remedial efforts, likely to affect growth in their basins? Are there many rivers nationally in similar situations?

(2) Sewage treatment construction grant spending. In a 1977 report on advanced waste treatment, GAO recommended creation of a comprehensive water quality management plan for the Tualatin. Since then, some \$75 million in federal funds have gone towards sewage treatment on the river. Has federal funding promoted coordinated water quality planning in the basins? Has the funding led attention to focus on sewage treatment and sewage-treatment-based criteria instead of on overall water quality improvement?

Page 2

Mr. Charles A. Bowsher

July 29, 1987

(3) Enforcement. Have the water quality laws been enforced effectively? On the Tualatin, the state is in the process of setting total maximum daily loads (TMDLs) for two pollutants in the river under Clean Water Act section 303(d). Would early establishment of TMDLs have led to better use of federal monies on the rivers? Would a different enforcement emphasis have lead to cleaner water?

(4) Non-point pollution. To what extent are the water quality problems due to non-point sources of pollution? Are there practical steps the federal government could take to reduce non-point pollution? Do the regulatory agencies have effective tools to control non-point pollution?

(5) Research and innovation. Is it likely that technology will soon offer a solution to these basins' problems? Should the federal government spend future dollars on better understanding the basins' hydrology, or on development of innovative means of pollution control?

We have committed ourselves as a nation to having clean water. But urban and industrial growth inevitably means increased demands on our rivers. Ultimately, failure to keep our rivers clean may create barriers to growth. If our efforts to clean up our rivers are inefficient or misguided, GAO could perform a great service by helping Congress, the agencies, and the States chart a new course.

If you have any questions, please contact me or Ken Rosenbaum of my staff, at 225-4811. Thank you for your prompt consideration and assistance.

Sincerely,

RON WYDEN  
Chairman

RW/kr

on

Yard debris rules timeline

Title due	3/29	5/3			
Staff report due to Rozell	3/31	5/4			
Staff report due to Payne	4/6	5/11			
Staff review	4/11	5/17			
Revise staff report	4/12	5/20			
Mail to EQC	4/15	4/20			
Hearing authorized by EQC	4/29	6/3			
Notice to S of S	5/1	6/3	6/6		
Hearing notice published	5/15	6/15	7/1		
Public hearing	5/31	6/30	7/19		
Staff report due to Rozell	6/8	7/19	7/20	8/31	10/11
Title due	6/8	7/19	7/19	9/7	10/18
Staff report due to Payne	6/15	7/27	7/27	9/14	10/25
Staff review	6/20	8/1	8/1	9/19	10/31
Revise staff report	6/21	8/3	8/3	9/21	11/2
Mail to EQC	6/24	8/5	8/5	9/23	11/3
Final adoption by EQC	7/8	8/19	8/19	10/7	11/18
File final rule	7/13	8/24	8/24	10/12	11/23

Hillsboro Argus Feb 18, 1988

# County to urge slow approach to river cleanup

By DOUG BROWNING  
Of the Argus

Washington County will ask state officials next month not to get too carried away with cleaning up the Tualatin River.

The occasion will be a meeting of the state Environmental Quality Commission, considering a rule that would require the county to do a better job of reducing pollution.

In particular, the rule would limit the amount of phosphorus that can be dumped into the river.

The county resents being portrayed as a polluter and appears headed into a defensive

posture which could get it yanked into federal court.

Already, some officials have claimed that phosphorus is not a pollutant. This week several county commissioners derided cleanup efforts as "plastic surgery."

That's a reference to the fact that phosphorus does not pose health risks but instead promotes algae growth which makes the river look unappealing.

Masses of algae grow rapidly during summer low-flow periods when they are exposed to sunlight for longer periods.

This growth occurs mainly in the lower river, in the Lake Oswego area. Residents

there are becoming increasingly irritated at county attempts to minimize their concerns by describing them as "aesthetic."

The Unified Sewerage Agency says it has spent millions already on improvements designed to improve water quality.

However, people on the lower river asked the Northwest Environmental Defense Council to file a lawsuit to force the state to enforce provisions of the federal Clean Water Act.

NEDC filed suit in federal court last spring. As part of a negotiated out-of-court settlement, EQC agreed to set, and enforce, limits on ammonia and phosphorus.

Ammonia standards can be achieved fairly easily. Phosphorus is a different story.

There are numerous sources for it, but the most easily identified are USA's two big treatment plants in Hillsboro and Durham.

A consultant says USA can not meet the state's suggested phosphorus limit, .010 milligrams per liter of river water, without drastically increasing monthly user fees.

The consultant, Vic Kaczinsky of CH2M-Hill, suggests the allowable limit should be 50 per cent lower, .015 mg/L.

Even with that standard, he says, USA will have to spend millions on a pipeline to carry its Durham effluent to the Willamette River,

assuming it can persuade DEQ to issue a discharge permit.

Kaczinsky says the key to the problem is not the amount of phosphorus that USA puts into the river but the fact that in summer the river is so sluggish.

He suggests that the most cost-effective way to deal with the problem would be to augment the river's flow to dilute the pollution.

Where this water would come from is an unanswered question.

As one step, USA will ask the Tualatin Valley Irrigation District to sell it more water from Hagg Lake south of Forest Grove.

(Continued on page 2)

## Tualatin River cleanup

(Continued from page 1A)

Another possibility would be to raise the dam to increase storage at Barney Reservoir in the Coast Range for summer use.

Other possibilities include reviving interest in a separate dam near Cherry Grove and a pipeline to import water from the Columbia River.

Kaczinsky also says non-point sources of phosphorus will have to be controlled if the county is to meet the state standard.

Nonpoint sources, so called because their origins can't be traced precisely, come mainly from urban areas. They flow into the river after being washed into tributaries during rainstorms.

The EQC rule won't be adopted until summer. Ninety days later, USA is to submit its plan to reduce the amounts of phosphorus coming out of its treatment plants.

Later, DEQ will determine which agencies—state or local or a combination—should be assigned responsibility for reducing nonpoint sources of phosphorus.

The county expects to ask voters sometime in 1989 to authorize creation of a storm drainage special district to control urban runoff.

Should voters approve the district, a DEQ spokesman said, it would be a natural agency to designate as a nonpoint source regulator.



U

Rena Cusma  
Executive Officer  
Metropolitan Service District  
2000 S. W. First Ave  
Portland, Oregon 97201

Dear Ms. Cusma:

Your letter of January 29, 1988, to the Governor on yard debris as a recyclable material is appreciated. I hope that Metro continues to place a high level of emphasis on the reduction of yard debris from the solid waste stream.

The Environmental Quality Commission chose a very difficult task when it addressed the issues of backyard burning and yard debris recycling. The Commission's recent action, identifying yard debris as a principal recyclable material, was consistent with its legislative mandate to identify all of the principal recyclable materials in each watershed. It is equally appropriate for the Commission to consider recycling as a major alternative to open burning or landfilling of organic material.

I know that Metro has put considerable effort into planning for solid waste management and waste reduction. You can be assured that the Department of Environmental Quality and Commission will give full consideration to the perspectives which Metro has presented and the process which Metro is developing. With the level of joint participation of Metro and Department staff in the Metro planning and Commission rulemaking processes I am sure that the Commission will have more than ample information available to them.

I look forward to both the resolution of the yard debris recycling issue by the Commission and the implementation of a waste reduction program by Metro. These programs are both compatible and necessary. I look forward to our two agencies working cooperatively together to develop the best solid waste management and waste reduction programs for the Portland metropolitan area.

Sincerely,  
Original Signed By  
Fred Hansen

Fred Hansen  
Director

FEB 19 1988

WRB:m  
SM1390

3/10/88 P.M.

BEFORE THE ENVIRONMENTAL QUALITY COMMISSION

1		
2	DEPARTMENT OF ENVIRONMENTAL	)
3	QUALITY, OF THE STATE OF	)
4	OREGON,	)
5		)
6	Department,	)
7		)
8	v.	)
9		)
10	MCINNIS ENTERPRISES, LTD,	)
11	an Oregon corporation,	)
12	dba Schulz Sanitation;	)
13	STEPHEN JAMES MCINNIS;	)
14	and ROBERT LEO CHURNSIDE,	)
15		)
16	Respondents.	)

Nos. 56-WQ-NWR-83-79  
and 59-SS-NWR-83-33290P-5  
Multnomah County

STIPULATION AND  
CONSENT ORDER

WHEREAS:

1. On September 2, 1983 the Department of Environmental Quality (DEQ) filed with the Environmental Quality Commission (EQC) a Notice of Assessment of Civil Penalty in Case No. WQ-NWR-83-79 against corporate Respondent McInnis Enterprises, Ltd., an Oregon corporation, dba Schulz Sanitation (Schulz), and individual Respondents.

2. On October 13, 1983, DEQ filed with EQC a Notice of Intent to Revoke the Sewage Disposal Service License [No. 33290P-5] of Schulz.

3. Respondents timely filed answers and requested hearings with respect to the allegation in the Notices referred to in paragraphs 1 and 2.

4. On December 15, 1983, said Notices were consolidated for hearing.

5. The parties now wish to compromise and settle these and factually related matters for the reasons and on the terms and

RANSOM, BLACKMAN & SIMSON  
Attorneys at Law  
American Bank Building  
421 S. W. Morrison Street  
Portland, Oregon 97205  
Telephone (503) 228-0487  
Telecopier (503) 227-5984

1 conditions set forth below.

2 NOW, THEREFORE, in consideration of the mutual covenants  
3 and agreements of the parties, it is hereby stipulated and agreed:

4 I. INTRODUCTION.

5 This Consent Order is entered into this \_\_\_\_\_ day of March,  
6 1988 between the EQC and Schulz to resolve the (1) Notice of  
7 Assessment of Civil Penalty No. WQ-NWR-83-79 Multnomah County; (2)  
8 Notice of Intent to Revoke Sewage Disposal Service License No.  
9 33290P-5; and (3) all claims and matters referred to in said  
10 Notices. In addition, the parties are aware of, intend and agree  
11 that the terms set forth in Section V below shall be incorporated  
12 into the agreement disposing of those proceedings currently  
13 pending in the Multnomah County Circuit Court commonly known as  
14 State of Oregon v. McInnis Enterprises, Ltd., dba Schulz  
15 Sanitation, Case No. C84-09-34177.

16 II. PURPOSES.

17 In entering into this Consent Order, the mutual objects of  
18 the parties are to:

- 19 1. Improve and foster a positive and productive  
20 relationship between DEQ and Respondents;
- 21 2. Promote and protect the best interests of the public;
- 22 3. Facilitate communication between DEQ and Respondents,  
23 efficiently monitor Respondents' future performance, and implement  
24 effective sanctions in the event of noncompliance.

25 III. JURISDICTION AND AUTHORITY.

26 This Consent Order is entered into on behalf of EQC by DDEQ

1 pursuant to the authority of ORS 468.130(4), ORS 454.715 and OAR  
2 340-11-136(1). This Consent Order is entered into on behalf of  
3 individual respondents personally and on behalf of Schulz by its  
4 duly authorized representative acting under authority of an  
5 appropriate corporate resolution.

6 IV. STIPULATIONS.

7 The parties hereby stipulate:

8 1. The above-captioned proceedings involve allegations  
9 which, if true, would represent significant violations of statutes  
10 and regulations designed to insure that sewage and septage waste  
11 are disposed of in an environmentally appropriate manner;

12 2. Respondents have and continue to dispute and contest the  
13 factual allegations set forth in the Notice of Assessment of Civil  
14 Penalty No. WQ-NWR-83-79, in paragraph III G of the Notice of  
15 Intent to Revoke Sewage Disposal Service License No. 33290P-5, and  
16 in the Multnomah County Circuit Court case above-referenced;  
17 neither this Consent Order nor any of its contents constitutes nor  
18 is to be construed as an admission of liability or responsibility  
19 by any Respondent;

20 3. Since the initiation of these proceedings, Respondents  
21 have not been cited for any violation of any DEQ statute or  
22 regulation;

23 4. It is in the best interests of the public that all  
24 above-referenced matters be resolved by mutual agreement of the  
25 parties rather than by further administrative proceedings or  
26 litigation.

1 V. TERMS AND CONDITIONS.

2 1. During the three years that this Stipulation and Consent  
3 Order is in effect, should DEQ receive credible evidence which, if  
4 uncontradicted, would establish that corporate Respondent or any  
5 employee acting at corporate respondent's request or with  
6 corporate Respondent acquiescence knowingly violated any provision  
7 of this Order or knowingly engaged in conduct violative of ORS  
8 454.605 -- 454.785, ORS 468.720 or OAR 340-71-600(1), (2), (6)(c),  
9 (7), (8), (10), (11), (12) or (13), it may initiate a contested  
10 case proceeding in accordance with the provisions of ORS Chapter  
11 183 and OAR 340-11-100, et. seq. In the event that DEQ receives  
12 credible evidence that corporate Respondent has violated OAR  
13 340-71-600(13)a) or (b), DDEQ may thereupon suspend corporate  
14 Respondent's Sewage Disposal Service License pending a hearing.  
15 The hearing in any proceeding brought pursuant to this paragraph  
16 shall commence within 30 days of EQC's receipt of the request for  
17 a hearing by Respondent unless the EQC and corporate Respondent  
18 mutually agree to a delay in the commencement of such hearing. In  
19 the event that the hearings officer finds that a knowing violation  
20 has occurred, the allegations contained in Notice No. 56-WQ-NWR-  
21 83-79 and 59-SS-NWR-83-33290P-5 shall be deemed established for  
22 purposes of imposition of sanction, corporate Respondent's license  
23 shall forthwith be revoked pursuant to OAR 340-71-600(9)(a)(B),  
24 and corporate Respondent shall surrender said license to EQC as  
25 provided in OAR 340-71-600(9)(b). This provision applies to any  
26 successor of corporate respondent which performs licensed sewage

1 disposal services and in which any officer or owner of corporate  
2 respondent has an ownership interest.

3 2. In the event that no contested case proceeding has been  
4 initiated as described in paragraph 1 during the three years this  
5 Stipulation and Consent Order is in effect, no action to suspend  
6 or revoke Respondent's license under OAR 340-71-600(9) thereafter  
7 initiated shall assert as a grounds therefore or rely on in any  
8 respect Respondent's alleged failure to comply with the terms and  
9 conditions of this Consent Decree. Any action thereafter  
10 initiated shall be brought pursuant to the civil penalty  
11 provisions of ORS 468.130 and/or OAR 340-12.

12 3. Respondent Schulz shall pay to the EQC the sum of  
13 \$14,500.00 on or before April 15, 1990 in quarterly installments  
14 of not less than \$1,805.00. This sum represents the total  
15 penalties assessed in setting the above-captioned case. Unless  
16 otherwise authorized by EQC, quarterly installments shall be  
17 received by EQC by 5:00 p.m. on April 15, July 15, October 15, and  
18 January 15 of each year.

19 4. DEQ and Respondent Schulz shall each select ~~not less~~  
20 ~~than~~ one representative to perform the following functions  
21 during the three years this Consent Decree is in effect:

22 a. DEQ representative shall:

23 (1) Make themselves available to confer with  
24 Respondent's representatives regarding regulations and compliance  
25 procedures;

26 (2) Monitor Respondents' performance;

(3) Meet with representatives of Respondent as necessary.

b. Respondent Schulz's representatives shall:

(1) Confer with DEQ's representatives about regulatory requirements or applications and before altering any existing practice utilized in performing sewage disposal services;

(2) Meet with DEQ representatives as necessary.

5. Nonperformance by EQC or DEQ of any obligation under this Stipulation and Consent Order shall not excuse continued compliance by corporate Respondent with its obligations under this Stipulation and Consent Order.

SCHULZ SANITATION

By: \_\_\_\_\_  
Name/Title

DATE \_\_\_\_\_

ENVIRONMENTAL QUALITY COMMISSION

By: \_\_\_\_\_  
James E. Petersen, Chairperson

DATE \_\_\_\_\_

By: \_\_\_\_\_  
Mary V. Bishop, Member

DATE \_\_\_\_\_

By: \_\_\_\_\_  
Wallace B. Brill, Member

DATE \_\_\_\_\_

By: \_\_\_\_\_  
Arno H. Denecke, Member

DATE \_\_\_\_\_

By: \_\_\_\_\_  
William P. Hutchison, Jr., Member

DATE \_\_\_\_\_



# LEAGUE OF WOMEN VOTERS OF OREGON

189 Liberty Street N.E., Room 307

Salem, Oregon 97301

(503) 581-5722

February 16, 1988

DEPARTMENT OF ENVIRONMENTAL QUALITY  
RECEIVED  
FEB 17 1988

Environmental Quality Commission  
811 SW Sixth Avenue  
Portland, Oregon 97204

OFFICE OF THE DIRECTOR

The League of Women Voters of Oregon approves of your recent decision to adopt procedures for hearings on air quality permits.

We urge you to establish the same rules to apply to hearings for water quality and solid waste permits. The standard that a hearing will be held if ten people or an organization representing ten people request a hearing seems reasonable.

The League believes democratic government depends upon the active participation of its citizens, and governmental bodies must give adequate notice of proposed actions, hold open meetings and make public records accessible. Therefore, we encourage you to extend the rules and procedures to cover water quality and solid waste permits as soon as possible.

Sincerely,

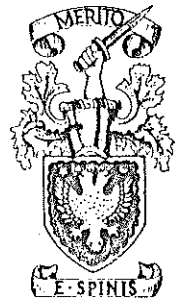
Sharon Little  
President

Adele Newton  
Natural Resources Chair



Tino -

At Wally's  
home on 28<sup>th</sup>



February 27, 1988

Commissioner Wallace B. Brill,  
Environmental Quality Commission,  
Oregon State Capitol,  
Salem, Ore. 97310

Dear Wally:-

As you know, I have been tracking the progress and procedures being used in the attempt to institute a Community Development Block Grant application submitted by Jackson County "to assist in funding the replacement of noncertified woodstoves for low and moderate income residents."

I at first accepted the assurances from our Department of Environmental Quality that stoves certified by that agency performed within the parameters required to alleviate satisfactorily the woodsmoke pollution from stoves and fireplaces here in Jackson County. Not so. In early January I learned of an extensive study just completed by the New York State Energy Research & Development Agency and the E.P.A. The published summary of this study concluded that: "Some individual new stove models performed relatively better and some worse", and that "The catalytic stoves, as a group, showed statistically insignificant reduction in smoke emissions compared to the conventional stoves". Also that the variables, such as chimney configuration and construction, firebox specifications, location within the home, etc., produced a mixed bag of results. The study indicates, however, that there was some good information derived, such as lowered creosote production and less fuel consumption in some models. And that: "Even with this variety of results, some new woodstove models clearly did reduce smoke emissions."

Inasmuch as this study was done in New York, I assumed early on that our D.E.Q. probably had little or no knowledge of it. Later, I found that Omni Environmental Service, of Beaverton, had done "some of the work", hence I presumed the D.E.Q. must have had some knowledge of how the final report would come out. At this point I raised the question with the Governor's office and the HUD offices in Washington, D.C., as to the appropriateness of approving a Community Development Block Grant application for the expenditure of so substantial a sum on

equipment that is judged to be unreliable. This morning our postman delivered to me a copy of the full NYSEDA report -- 317 pages of it. From it I learn that Omni had indeed done "some of the work". They were the study contractor and had prepared the entire report! Further, a letter to me from Merlyn Hough received day before yesterday now admits the D.E.Q. had been aware of the New York study "for quite some time". To me it is absolutely appalling that an important agency of our State government would have all along been in possession of such solid information and yet still "strongly support" a grant application to fund a program whose most essential increment (the stoves themselves) that agency knows to be deficient.

Our D.E.Q. downplays this comprehensive New York project by saying, "As I pointed out to you, the NYSEDA study was started several years ago and contained mostly first generation technology". Translation: The study is obsolete and used old equipment. The truth is that the New York study, released in November of 1987 was under full review in 68 homes in New York and Vermont, plus an additional 33 homes that were monitored for emissions only, for the wood heating seasons of 1985-86 and 1986-87, which is not "several years ago" (this being early 1988) and that the stated purpose of the study was "Performance monitoring of advanced technology woodstoves", -- not first generation "older stoves" as our D.E.Q. has described them to me.

Day before yesterday I received from the D.E.Q. what they termed "summaries of later in-home studies" done by Omni and described to me by the D.E.Q. as "recent studies" although dated May 1987 -- six months prior to the NYSEDA release. A copy of the Portland area summary was attached. It declares, "Two homes were selected for participation in the study." and "Two one-week sampling periods were completed in each (then) the catalytic devices were switched to the other home and two additional one-week sampling periods were completed." This permitted only four weeks of mean particulate tracing. Very good number were claimed, but I am not convinced that two stoves monitored for a total of four weeks can be considered adequate methodology compared with the information gained from in situ evaluation of 101 stoves over a two year period. Also, this would appear to have the D.E.Q. contradicting its own criticism of a recent report disputing their conclusions on industrial pollution here when they suggested -- correctly, I think -- that Dr. Palzer should be using a larger data base. A 2-stove, 4-week data base appears insufficient to quantify woodstove performance evaluation. In the same paragraph with the foregoing the D.E.Q. tells me, "We feel financial assistance to install such equipment would be a wise use of public funds to effectively address serious air pollution problems." In other words, they are

willing to continue pushing for the grant application approval so that \$800,000.00 can be spent in spite of obviously unsatisfactory test information.

What I believe this all boils down to is:

- \* Congress created the Environmental Protection Agency, mandating certain action under the Clean Air Act.
- \* Congress is now pressing the E.P.A. for greater effort in this field.
- \* Our D.E.Q. is being threatened with sanctions by the E.P.A. unless a State Implementation Plan is submitted to them by May 1st. (NOTE: An implementation plan is now so impossible of achievement within this time-frame that the deadline will undoubtedly be extended.)
- \* A contract between Jackson County and HUD, resulting from approval of the grant, would satisfy the E.P.A. that a plan was being implemented.
- \* They could include this "progress" in their report to Congress who would lessen the pressure on the E.P.A. and everybody would be happy -- never mind this would all be achieved by approval of a grant to spend a huge amount of tax dollars on unproven equipment which will not function.

I will leave to your imagination the uproar that will surely follow when it is eventually (soon) discovered that air quality here has not been significantly improved.

We now have a much larger problem than whether or not stoves perform as so optimistically represented. The problem is one of public trust in an agency the proper function of which affects so vital a matter as improvement of the environment in which we must survive. The efforts to cleanse our air here in Jackson County must go forward with due speed, but with prudence. We cannot afford time lost by interruption and the consequent backtracking of this effort due to obdurate insistence or to which alternatives could be suitable. If the public -- and others with whom the D.E.Q. is involved -- are deliberately being fed funny numbers in order to create the impression certain desirable/necessary results will be forthcoming, then clearly the administration of that agency can come into sharp question. And if at any point our own County officials' actions also indicate misfeasance, that also should be brought to light. I trust the foregoing will merit your attention.

Very truly yours,

John F. Dunlap

32 Black Oak Drive,  
Medford, Ore. 97504

TESTIMONY PRESENTED BY JEANNE ORCUTT  
AT THE EQC MEETING ON MARCH 11, 1988  
COPY OF WHICH IS SUBMITTED FOR THE  
RECORD.

I asked both Portland and Gresham for copies of any communications between the City and the EQC/DEQ in regard to concerns I raised at the last EQC meeting.

The only communication I received was a letter (dated 3-3-88) from John Lang to Fred Hansen, Director of the Department of Environmental Quality. The letter is in regard to only one of my concerns. Portland has agreed to reduce the sewer user rate charged to residential properties outside city boundaries by an amount equal to the 7% franchise fee collected within the city limits. The rate reduction would be retroactive to the effective date of House Bill 3101.

My questions today are:

1. Why should the reduction apply only to residential properties?
2. Why should the rate reduction be retroactive only to the effective date of HB-3101. At no time can Portland legally collect a franchise fee in the unincorporated area.

It is interesting that the Portland City Attorney's Office now feels that the language of HB-3101 is ambiguous in light of the fact that the City had its legal counsel present at the negotiation sessions when United Citizens, Inc. worked out the wording of the legislation with Portland and Gresham.

As I mentioned earlier, this addresses only one of my concerns. I would like to have all my concerns that I brought to the EQC at the last meeting adequately addressed.

Thursday, June 11, 1987

R-2

by June 11, 1987 Pg. 106½ & 109 J156

fica-

BEFORE THE BOARD OF COUNTY COMMISSIONERS

OF MULTNOMAH COUNTY, OREGON

LUTION

by

In the matter of establishing )  
a policy to remonstrate against )  
the assessment of county open ) RESOLUTION  
space lands in Local )  
Improvement Districts. )

rther

WHEREAS, the City of Portland assesses all lands,  
including publicly owned land, for a uniform levy of assessment  
within Local Improvement Districts (LID); and

WHEREAS, the County owns open space lands such as  
parks and cemeteries that derive little or no benefit from  
certain types of public improvements, such as sewers; and

to

WHEREAS, pursuant to Portland City Code 17.12.050(c)  
the County may remonstrate against the assessment of any County  
property within the LID, after which the City cannot assess an  
amount in excess of the special and peculiar benefit accruing  
to the County property;

by

THEREFORE BE IT RESOLVED, the County shall exercise  
its right to remonstrate against the assessment of County  
parks, recreation areas, cemeteries and other open space to be  
included within the City of Portland LID's.

rdin-  
rs-  
nty

ADOPTED this 11th day of June, 1987.

BOARD OF COUNTY COMMISSIONERS  
FOR MULTNOMAH COUNTY, OREGON

(SEAL)

By Gladys McCoy  
Gladys McCoy  
Multnomah County Chair

APPROVED AS TO FORM:  
Laurence Kressel  
County Counsel

Noelle Billups  
Noelle Billups  
Assistant County Counsel

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STATE OF OREGON

DEPARTMENT OF ENVIRONMENTAL QUALITY

INTEROFFICE MEMO

TO: Environmental Quality Commission

DATE: March 7, 1988

FROM: Fred Hansen

SUBJECT: Staff Response to Jeanne Orcutt Testimony at the January 22, 1988, EQC Meeting, Public Forum.

Jeanne Orcutt presented testimony to the EQC regarding compliance with HB 3101. A review of her testimony has been completed by staff and a response is included below.

Issue 1 - Gresham Safety Net Program

a) **Program Availability** - Ms. Orcutt stated that a copy of the Gresham safety net plan has not been available for her review. Gresham submitted their safety net plan on February 1, 1988, and a copy has been sent to Ms. Orcutt for her review.

b) **Citizen Participation** - Ms. Orcutt stated that inadequate opportunity for citizen participation has been provided, and that Gresham's plan to have a three-member citizens advisory committee is inadequate to comply with statutory requirements.

Gresham has responded that copies of the program were available at the September 29, 1987, Gresham City Council meeting when the draft plan was first presented to the council. Furthermore, a public hearing was held on October 20, 1987, at which time citizens were invited to comment on the proposed plan. At that meeting, several citizens raised questions regarding the proposed safety net plan. A written response to these questions was presented to the Council prior to adoption of the safety net plan on November 3, 1987. The Department finds that this citizen participation process was adequate for development of the plan as required by OAR 340-81-110 (3)(a)(e).

The Department does, however, plan to recommend that no disbursement of safety net loan funds be made to the City until establishment of a citizens sewer advisory committee, in order to assure compliance with the requirements of ORS 454.370 (2). The statute states:

The members of each citizens sewer advisory committee shall represent a cross section of businesses, homeowners and renters in the affected area and others affected by the order. At least two-thirds of the members shall reside or do business within the affected area. At least one-third of the members shall be persons eligible for financial relief under the safety net plan provided for in ORS 454.365.

There is no statutory requirement regarding the number of members the committee must have. The statute only requires that a representative cross-section of citizens be on the committee. It would be possible for a three-member committee to comply with statutory requirements if one person represents more than one constituency (e.g. one member could own a business and rent an apartment in the affected area). The Department would, therefore, find a three-member committee adequate to comply with statutory requirements, if it had a representative cross-section of citizens. Gresham currently has two committee members and is attempting to find a third.

#### Issue 2 - Portland Safety Net Program

a) **Citizen participation** - Ms. Orcutt testified that she does not believe that the composition of Portland's citizen advisory board complies with the requirements of HB 3101. Portland currently has a six-member citizen sewer advisory board. Of these six, two members are safety net eligible, five live in the area, one works in the area and one is a renter. They are currently seeking more board members to bring the total membership to nine. The board's membership complies with the requirements of ORS 454.370 (2) because more than two-thirds of the members reside in the area, and one-third of the members are eligible for financial relief under the safety net plan. The City has had problems in the past maintaining the board's membership due to inability to find safety net eligible members and due to the lack of interest by members in participation on the board for long terms. The City has, however, shown a concerted effort to maintain the board's membership. The Department finds that Portland complies with the statutory requirements regarding the citizens advisory board.

b) **Minutes of the Citizen Advisory Board** - Ms. Orcutt questioned whether the City of Portland had complied with the statutory requirement to submit minutes from the citizen advisory board meetings to the EQC. The minutes from all meetings since September, when HB 3101 took effect, have been submitted to the Commission Assistant, Tina Payne, and are available upon request. The City plans to submit these minutes to the EQC every six months.

c) **Charging property owners outside the city limits a seven percent franchise fee** - The City of Portland has until recently charged all sewer users inside and outside the city a seven percent franchise fee. The City is required by city ordinance to charge this fee within the City limits but not outside the City limits. Ms. Orcutt stated that this charge outside the city limits conflicts with the requirements of ORS 454.375 which states that user charges shall be based on the cost of providing sewer service and that the city boundary shall not be the basis for charging different user fees unless there are documented cost causative factors. The City has agreed to reduce monthly sewer rates charged to residential property outside the city limits so this fee is no longer paid by these property owners. The City will make the rate reduction retroactive to the date that HB 3101 became effective.

d) **Multnomah County's Right of Remonstrance** - Ms. Orcutt objected to Multnomah County's resolution to remonstrate assessments for sewerage county properties. She believes this is contrary to statutory requirements and would increase sewer costs to other property owners within the LID. According to ORS 454.280, treatment works may be constructed by a municipality without being subject to a remonstrance procedure when an Environmental Quality Commission order has been filed with the local government. The effect of this statute is to prohibit local property owners from challenging the requirement to connect to sewers and pay associated assessments. Multnomah County is concerned about the sewer assessment charges it will have to pay for large parcels of land, such as parks, in the Mid-Multnomah County area. In response to this concern, the County Board of Commissioners passed a resolution to remonstrate assessments on county property. The City of Portland and Multnomah County are currently negotiating this matter and no final decision has been made at this time regarding charges to the County for sewerage county properties. It is, therefore, inappropriate for the Department to become involved in this matter at this time.

e) **Rebates for Sewer Connections** - Ms. Orcutt objected to the City's decision to provide a partial rebate to citizens who connected to sewers after December 14, 1984. This was the date of the preliminary EQC determination of the threat to drinking water. This date was selected because the city at that time began encouraging property owners to connect to sewers as soon as possible. Sewer charges have been lowered since that time and the City has determined that the most equitable approach is to charge all property owners the same for connections after the preliminary EQC order was issued.

The Department has determined that this is an issue which should be left to the local jurisdiction to address since the Department has no statutory mandate with regard to this issue and since construction grants have not provided any funds for local sewer connection assessments.



Page 1.

Testimony by Jeanne Circuit  
during the Public Forum  
of the EOC Meeting on 1-22-88

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During the 1987 legislative session, United Citizens introduced 10 bills that would provide meaningful financial relief to property owners faced with the sewer mandate. The chair of the House Intergovernmental Affairs Committee told United Citizens that they would get nothing from the legislature unless they sat down with Portland and Gresham and negotiated a mutually acceptable bill. After many hours of negotiations, the culmination of our efforts was HB-3101 which, I am sorry to say, provides very little financial relief for affected property owners.

Today, I wish to advise you that it appears Portland and Gresham are not living up to the letter of the law. House Bill 3101 requires that a municipality providing sewer service within the affected area shall approve and adopt a Safety Net Program. Although Portland has adopted a Safety Net Program, Gresham is dragging its feet. When I asked the City for a copy of its Safety Net Program, I was told that some changes

were being made and I could have a copy when it was finalized. Gresham is developing its Safety Net Program without any citizen participation whatsoever.

House Bill 3101 also requires a municipality providing sewer service in the affected area to establish a Citizens Sewer Advisory Committee to advise the E.O.C. and the local governing body on matters relating to implementation of the sewer mandate. The committee shall consist of persons directly affected by the mandate and shall represent a cross section of businesses, homeowners, renters and others affected by the order. Although Portland created a Citizens Sewer Advisory Committee prior to the passage of HB-3101, the composition does not comply with the law which requires that  $\frac{1}{3}$ rd of the members of the committee shall be eligible for safety net benefits. Gresham has not complied with the law, and does not have a Citizens Sewer Advisory Committee. However, they contemplate establishing a 3 member committee. How can only 3 members be representative.

of a cross section of businesses, homeowners, renters, and others such as institutions, churches, schools, mobile home owners, etc.?

The law further provides that a Citizens Sewer Advisory Committee shall submit its minutes and recommendations to the E.C.C. Has the Portland Citizens Sewer Advisory Committee complied with this requirement of law?

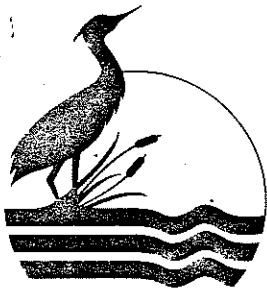
I believe that Portland is in violation of another provision of the law. Before a property owner is required to pay for construction or connection to a sewer, the local governing body shall file with the E.C.C. documentation that sewer connection and user charges are based on the cost of providing sewer service and that the existence of a city boundary shall not be used as a basis for imposing a differential sewer user rate or connection fee. Unless there are documented cost-causative factors to justify the differential. Portland is charging the same sewer user fee in the unincorporated area as it does within the city. However, the user

fee within the city limits includes the 7% franchise fee which the City cannot legally collect in the unincorporated area. Therefore, rate-payers in the unincorporated area are paying a higher user fee than property owners within the City. The amount equal to the 7% franchise fee which is collected in the unincorporated area is being diverted to the General Fund - just as if it was a franchise fee. The General Fund can be used for any purpose approved by the City Council. I am submitting a list I received from Portland of property owners in the unincorporated area who are paying the 7% that is being transferred to the General Fund. I am also submitting a memo dated 12-28-87 from Bob Rieck to the Bureau of Environmental Services Citizens' Advisory Committee members regarding franchise fees and overhead payments to the General Fund. I trust you will review this information and do whatever is within your power to correct this injustice and force Portland & Gresham to comply with the State law.

I have yet two additional concerns. Although state law has removed the property owners right to remonstrate against sewers, Multnomah County has passed a resolution that would give it the right to remonstrate against assessments for sewerage County properties. This in turn would increase the sewer costs to other property owners within the HID.

My second concern is that Portland is now giving rebates on connection charges back as far as 1984. The grants being received are for the affected area so why should property owners who connected prior to the sewer mandate receive a rebate.

Since you are the Board that mandated the Mid Multnomah County Sewer Project, I'm sure you will be interested in seeing that it is implemented in a fair and equitable manner.



March 8, 1988

1120 S.W. 5th Avenue  
Room 400  
Portland, Oregon  
97204-1972  
(503) 796-7740

Fred Hansen  
Executive Director  
Oregon Department of Environmental Quality  
811 SW 6th Ave.  
Portland, OR 97204

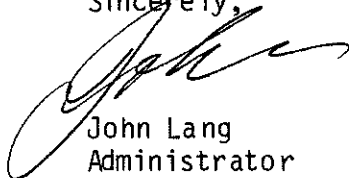
Dear Fred:

Attached are copies of all Citizen Sewer Advisory Board Meeting minutes held since September of 1987. As required by HB 3101, we will continue to convey these to you every six months.

We may also, of course, be bringing Board recommendations to the Commission as well as our City Council as the Board determines appropriate.

Please let me know if I can answer any questions from you, your staff or the Commissioner regarding CSAB activities.

Sincerely,

A handwritten signature in cursive script, appearing to read "John Lang".

John Lang  
Administrator

JML:lld  
161:hansen

cc: Maggie Connelly  
Karen Kramer  
CSAB Members





CITY OF

# PORTLAND, OREGON

BUREAU OF ENVIRONMENTAL SERVICES

**Bob Koch, Commissioner**  
John Lang, Administrator  
1120 S.W. 5th Ave.  
Portland, Oregon 97204-1972

**FINAL MINUTES**  
CITY OF PORTLAND  
CITIZENS' SEWER ADVISORY BOARD  
**November 17, 1987**  
Floyd Light Middle School  
10800 SE Washington, Lecture Room

In attendance at this meeting were:

Board Members:

Georgia Hoffman  
Duncan McCaig  
David Williamson

Staff: Lana Danaher  
David Kliever  
John Lang  
Bonnie Morris

1. Introduction & Welcome

David Williamson called the meeting to order in the absence of the Board's Chair, Rich Cannon. David introduced the other board members present.

The minutes from April, May and June will be held over until the next meeting due to lack of a quorum.

David explained that the Board had met informally during the month of October for brainstorming sessions. The Board decided to:

Be more of an advocate for citizens views and needs.  
Get out in the community more (attend workshops, neighborhood meetings, spend time at the Customer Service Center).

The Board decided that they would meet on the third Tuesday of every other month. The month that there is no formal meeting Board members will attend a workshop or community meeting.

## II. Status Report on Safety Net Application

Bonnie Morris explained to the Board that the safety net is now being applied to real cases. She said that 1,400 mandatory connection letters had been mailed out. Some of these properties have had sewer available for many years but had not yet hooked up. 2/3 of these properties had assessments paid and 1/3 of the properties were on trunk lines.

Bonnie explained that the Customer Service Center was receiving many calls. The Service Center employees fill out a form (initial contact form). If these people appear to be qualified for the safety net or show an interest in going through the safety net application process, they are asked to come in for an interview. They are sent an appointment letter which tells them the item they need to bring with them for the interview.

A file is opened for this person and they come to the Customer Service Center for their interview. If it is not possible for them to come in to the office, Lana will go to their home for the interview.

During the interview Lana explains what the safety net can and can't do. She talks to them about what other agencies are available to help them. The information supplied by the applicant is verified and then the file is sent to PDC (Portland Development Commission) where they proceed with the loans.

The Bureau has a contract with PDC for them to do this work. The Bureau does not have the staff or the resources to do the work in-house.

Lana discussed the handout that shows how many people have applied, some of the special problems that have come up, etc.

There was some concern about the number of senior citizens that are applying and some of their special circumstances. The Board will monitor these very carefully.

The Initial Contact Sheets are being kept so that staff can see what problems are occurring with the safety net. No one has requested an appeal yet and an appeals process has not yet been fully developed.

The format of the report may change as more people apply for the safety net. PDC will be giving the Bureau the amounts of loans that are given so the Bureau can report back to the Board this information also.



### III. Board Consideration on Safety Net Qualification Period of Deferral

Bonnie Morris discussed the period of deferral with the Board. Staff wants to go back to Council to have the re-evaluation period changed to 3 or 5 years. It would be very costly to have a 1 year re-evaluation period. The loans originally were to be until the property changes hands. Since people's circumstances can change there should be a 3-5 year re-evaluation process. This would also ensure that money is going to those who need it the most and to re-circulate the loan money. People over 65 would not have to re-apply. This would also mean that people would not feel that they were being harassed by checking on them on a yearly basis.

The Board would like to have more information on this at their next meeting.

The Board would also like to have a status of funding report at the next meeting.

### IV. Comments to David Kliever's Letter

David Kliever had the Board review the mandatory connection charge letter that was sent out to property owners. David Williamson commented that maybe the letter should include that the Citizens Sewer Advisory Board exists.

There was some discussion on the incentive program. Since Karen Kramer was not at the meeting, this will be put on the agenda for the next meeting.

### V. Citizen Review and Comments

Herb Brown talked about the 7% franchise fee on monthly sewer rates. He said that he would like to see half of this money (which goes to the General Fund) go towards costs of mid-County sewers. He would like the Board to consider taking this proposal to the City Council. The Board requested that staff provide them with more information at the next meeting.

### VI. Establishing Agenda for January 19 Meeting

Agenda items for the next meeting include:

- An update on safety net funding
- More information on the incentive program
- More information on the 7% franchise issue (report from staff)
- A task Check for Board Members
- Staff recommendation on deferral time
- An update on the safety net applications, etc.



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BUREAU OF ENVIRONMENTAL SERVICES

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BUREAU OF ENVIRONMENTAL SERVICES

Bob Koch, Commissioner  
John Lang, Administrator  
1120 S.W. 5th Ave.  
Portland, Oregon 97204-1972

FINAL MINUTES  
CITY OF PORTLAND  
CITIZENS' SEWER ADVISORY BOARD  
June 15, 1987  
1517 NE 122ND AVENUE

In attendance at this meeting were:

Board Members:

Jane Baker  
Ed Benedict  
Rich Cannon, Chair  
Duncan McCaig  
Beverly Moffatt  
David Williamson

Staff: Cynthia Baker  
Frank Buehler  
Laura Demarinis  
Bill Gaffi  
David Gooley  
David Kliever  
Lee Klingler  
Karen Kramer  
John Lang  
Bonnie Morris  
Bob Rieck

Commissioner Bob Koch  
Commissioner Koch's Staff: Karen Masterson

1. Introduction & Welcome

Rich Cannon opened the meeting and explained that this meeting was the one year point for the Board and it was also the last meeting for two of the Board Members.

2. Mid-County Sewer Project: Design and Construction Progress and Scheduling

Ron Sunnarborg, manager of the design division for the Bureau of Environmental Services spoke about some of the projects that are being worked on in his division. Ron said that in order for the Bureau to remain in compliance with the Environmental Quality Commission's Order, the Bureau must design 50 miles of sewers in the first year and 30 miles per year thereafter. Ron briefly explained some of the new technology in the field of sewer design. The

Computer Aided Drafting System (CAD) is now being used and several members of the staff have attended evening classes to learn this new technology. Ron showed slides of maps of the affected area. These maps showed where designs had been completed and what areas were not complete. There were slides of survey crews checking actual house elevations and crews in the field doing soil sampling. Ron said that to date, 30 projects had been completed totaling 58 million dollars (62 miles of sewer).

Lee Klingler, manager of the construction division, handed out maps which showed what areas had been completed and what was left to complete. Lee introduced Frank Buehler who is the project manager for the 122nd Avenue Interceptor Project. Lee said that letters were sent to property owners in advance, and most property owners were contacted in person to let them know that construction is going to be occurring in the area. (It was explained by other staff members that property owners are also contacted many times before construction even begins). A citizen in the group was concerned that streets in the area are not being left in very good condition after construction. Beverly Moffatt agreed. Frank Buehler said that he would put this on the list of items to speak with the contractor about. Lee added that if all goes well, the Cherry Park Interceptor Project will be completed by Thanksgiving. The Argay 2 project is now 70% complete.

There was a question from a citizen regarding how the treatment plant would be able to handle the added load of the affected area without having to expand. Bill Gaffi explained that there were no immediate plans for expansion at the plant. Bill also explained that the sewage coming into the plant from the affected area would have no affect on sewage from other parts of the City and would not cause any more combined sewer discharge into the river than is already occurring during heavy rain periods.

Lee showed some slides of current construction on the SE Relieving Interceptor and the 78 inch diameter tunnel lines where sewer pipe is going in. Lee said that 161,000 feet of construction had been completed. Lee added that the basic concept is teamwork. Teamwork between the City, the Contractor and the citizens.

### 3. Status Report on Safety Net and Connection Program

Bonnie Morris explained the safety net ordinance that will be heard next week, June 24 or 25, before City Council. Bonnie reiterated that the City would be bringing quarterly reports to the Board and that modifications could and most probably would be made to the safety net plan.

David Gooley said that Senate Bill 878 (the safety net funding bill) had been passed by the Senate Committee and was on its way to the Ways & Means Committee. He said that the Bill was gaining much more support and after its passage by the Ways & Means Committee it would be signed into law.

#### Mandatory Connection Program

David Kliewer explained the mandatory connection program. The objectives of the program provide for the following:

1. Sufficient connections within the Environmental Quality Commission timelines.
2. Voluntary connections encouraged through incentives.
3. An effective means of enforcement to ensure connections, applied only to those who do not qualify for deferral based on financial hardship.
4. Connection via the most economical and practical route of service for each property.

The connection requirements elements are:

- Effective Date - July 1, 1987
- Grace Period - Each developed property is allowed one year to connect following notification, generally once the sewer is immediately available.
- Area of Application - Portland's portion of the affected area.
- Immediate availability - A sewer is adjacent to the property or an easement serving the property and is the intended route of sewer service.

The connection incentives are:

- Connection Fee Lock-ins - Lock in today's fees for connections as much as five years in the future.
- Connection Fee Discounts - Discounts for earlier connection in the grace period.
- Cooperative Plumbing Arrangements - Lowered private plumbing costs through neighborhood cooperation.
- Voluntary Savings Programs - Savings to help pay future sewer costs.

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Connection enforcement is through:

- Noticing Process - Notices and warnings reminding property owners of available incentives programs, the safety net program, and possible enforcement.
- Nuisance Abatement Process - Notices, appeals processes, City abatement and/or liening of charges and penalties in a process similar to the Building Bureau's nuisance process.
- Title Change Requirements - Requirements to prevent property that has the connection requirement from changing title without connection.
- Beginning of Service Charges - Service charges to start 90 days after notice to connect regardless of whether connected or not. That will remove a disincentive for connection.

#### 4. Future Meetings

A motion was made and passed unanimously for the Board to take the summer off. Two of the Board members will be leaving and new members will need to be appointed.

#### 5. Closing Comments and Reception

Commissioner Koch spoke about the hard work that the Board had done in the last year and thanked Ed Benedict and Beverly Moffatt for donating their time and hard work to the Board. Commissioner Koch talked about Senate Bill 3101 that had been worked on by the City staff, Commissioner's staff and citizens of mid-County.

The meeting was adjourned and a reception followed.

The Board will not be meeting again until September.



CITY OF

# PORTLAND, OREGON

BUREAU OF ENVIRONMENTAL SERVICES

Bob Koch, Commissioner  
John Lang, Administrator  
1120 S.W. 5th Ave.  
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FINAL MINUTES  
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### 3. Status Report on Safety Net and Connection Program

Bonnie Morris explained the safety net ordinance that will be heard next week, June 24 or 25, before City Council. Bonnie reiterated that the City would be bringing quarterly reports to the Board and that modifications could and most probably would be made to the safety net plan.

David Gooley said that Senate Bill 878 (the safety net funding bill) had been passed by the Senate Committee and was on its way to the Ways & Means Committee. He said that the Bill was gaining much more support and after its passage by the Ways & Means Committee it would be signed into law.

#### Mandatory Connection Program

David Kliwer explained the mandatory connection program. The objectives of the program provide for the following:

1. Sufficient connections within the Environmental Quality Commission timelines.
2. Voluntary connections encouraged through incentives.
3. An effective means of enforcement to ensure connections, applied only to those who do not qualify for deferral based on financial hardship.
4. Connection via the most economical and practical route of service for each property.

The connection requirements elements are:

- Effective Date - July 1, 1987
- Grace Period - Each developed property is allowed one year to connect following notification, generally once the sewer is immediately available.
- Area of Application - Portland's portion of the affected area.
- Immediate availability - A sewer is adjacent to the property or an easement serving the property and is the intended route of sewer service.

The connection incentives are:

- Connection Fee Lock-ins - Lock in today's fees for connections as much as five years in the future.
- Connection Fee Discounts - Discounts for earlier connection in the grace period.
- Cooperative Plumbing Arrangements - Lowered private plumbing costs through neighborhood cooperation.
- Voluntary Savings Programs - Savings to help pay future sewer costs.

Connection enforcement is through:

- Noticing Process - Notices and warnings reminding property owners of available incentives programs, the safety net program, and possible enforcement.
- Nuisance Abatement Process - Notices, appeals processes, City abatement and/or liening of charges and penalties in a process similar to the Building Bureau's nuisance process.
- Title Change Requirements - Requirements to prevent property that has the connection requirement from changing title without connection.
- Beginning of Service Charges - Service charges to start 90 days after notice to connect regardless of whether connected or not. That will remove a disincentive for connection.

#### 4. Future Meetings

A motion was made and passed unanimously for the Board to take the summer off. Two of the Board members will be leaving and new members will need to be appointed.

#### 5. Closing Comments and Reception

Commissioner Koch spoke about the hard work that the Board had done in the last year and thanked Ed Benedict and Beverly Moffatt for donating their time and hard work to the Board. Commissioner Koch talked about Senate Bill 3101 that had been worked on by the City staff, Commissioner's staff and citizens of mid-County.

The meeting was adjourned and a reception followed.

The Board will not be meeting again until September.



CITY OF

**PORTLAND, OREGON**

BUREAU OF ENVIRONMENTAL SERVICES

**Bob Koch, Commissioner**  
John Lang, Administrator  
1120 S.W. 5th Ave.  
Portland, Oregon 97204-1972

**FINAL MINUTES**  
CITY OF PORTLAND  
CITIZENS' SEWER ADVISORY BOARD  
**May 18, 1987**  
MULTNOMAH COUNTY EDUCATION SERVICE DISTRICT BLDG.  
AUDITORIUM

In attendance at this meeting were:

Board Members:

Jane Baker  
Rich Cannon, Chair  
Beverly Moffatt  
David Williamson

Staff: Laura Demarinis  
David Gooley  
David Kliever  
Bonnie Morris  
Jane Whitcher

Commissioner Koch's Staff: Karen Masterson  
Consultant Staff: Jeanne Lawson of  
Dames & Moore

1. Introduction & Welcome

Rich Cannon called the meeting to order and said that there were only four members present therefore no motion or decision could be made.

Rich introduced Karen Kramer who reviewed the Ground Breaking ceremony that had taken place on May 4, 1987 at the San Rafael Shopping Center on 122nd and Halsey. Karen showed pictures and video tape highlights of the ground breaking ceremony. Karen introduced the staff in attendance.

2. Review of Proposed Sewer Connection Program

David Kliever explained that the sewer connection program was a requirement of the "Mid-Multnomah County Sewer Implementation Plan", as ordered by the Environmental Quality Commission.

David said there were several reasons why the program was important including the need to comply with a cesspool removal curve known as the "EQC Benchmark Removal Rate". The rate is a straight line removal of cesspools beginning in 1987 with all cesspools out of service by the end of 2005. This rate became part of the Order. The Benchmark Curve is also referenced in the Oregon Administrative Rules for On-Site Disposal. The OARs would disallow issuance of new construction/installation permits for cesspools and seepage pits within the "Affected Area" when the Benchmark Curve is not met.

Grant funds could also be affected by the strength of the connection program. The EPA, in awarding grant funds, requires that facilities built with grant funds be used as fully as possible soon after construction.

The connection program objectives are:

- EQC timelines for removal of on-site disposal systems
- Voluntary connections should be encouraged where possible (through incentives)
- The use and severity of enforcement action should be limited but should be pursued when property owner does not qualify for safety net deferrals and disregards connection notices.
- All affected property owners should receive consistent and equitable treatment.
- The program should not be implemented until financial assistance programs are available.
- Connection should be allowed by the most practical route of service.

#### STAFF RECOMMENDATIONS ON THE PROPOSED SEWER CONNECTION PROGRAM

- A starting date of July 1, 1987 (in place and ready for implementation.
- Make sure that financial programs (safety net) are ready.
- A one year grace period.
- The area of application will be:
  1. The affected area
  2. Other City areas with scattered unsewered and unconnected properties (with emphasis on areas with a health hazard).

There are two elements to assure eventual connection: incentives and enforcement.

The proposed incentives are:

- Discounts on connection charges
- special neighborhood coordinating services
- connection fee price lock-in
- voluntary savings program
- service charge rebates

The proposed enforcement actions are:

- dunning process (thorough series of reminders, notices and warning letters)
- show cause hearing (to allow individuals to appeal their connection requirement based upon special criteria)
- lien connection charges with assessments
- penalty liens
- disconnection of water service
- Building Bureau nuisance abatement procedure
- misdemeanor penalties
- circulation of a connection delinquency list
- litigation

Beverly Moffatt and Jane Baker expressed opposition to the water service disconnection plan. Dave Kliewer said that it had been an idea and that it was not well accepted by the staff at the Bureau either.

Beverly Moffatt said that City properties should be treated the same as affected area properties. The process should be equitable.

Dave Kliewer stated that it was easier to find out who is and is not connected in the affected area. Many parts of the City have sewers but are not connected. The records of City sewer connections date back to the early 1900's and are sketchy, inaccurate and, in some cases, unavailable.

There was a question from the audience regarding hiring of private plumbers. Bonnie Morris answered that there was a list of plumbers but the City is unable to recommend one over the other. She added that citizens should get bids from several plumbers to get the best price.

#### 4. Staff Status Reports

There was some discussion on the safety net with regard to available money in the fund and poverty level rates.

Bonnie Morris gave the Board a status report of the safety net application process. Bonnie reviewed the exception process for qualification and she proposed a re-qualification process and quarterly reports to the Board. Members received a packet of information that included the above information and the draft safety net application.

David Gooley gave an update on the status of Senate Bills 878 and 117. He said that they had both been passed out of the Senate Government Operations Committee and were now on their way to the Ways and Means Committee. He said that both Bills were gaining more interest.

The meeting was adjourned. The next meeting will be June 15 at the mid-County office at 1517 NE 122nd Ave.





CITY OF

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BUREAU OF ENVIRONMENTAL SERVICES

Bob Koch, Commissioner  
John Lang, Administrator  
1120 S.W. 5th Ave.  
Portland, Oregon 97204-1972

FINAL MINUTES  
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BUREAU OF ENVIRONMENTAL SERVICES

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1120 S.W. 5th Ave.  
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**FINAL MINUTES**  
CITY OF PORTLAND  
CITIZENS' SEWER ADVISORY BOARD  
**APRIL 20, 1987**  
MULTNOMAH COUNTY EDUCATION SERVICE DISTRICT BLDG.  
AUDITORIUM

In attendance at this meeting were:

Board Members:

Jane Baker  
Ed Benedict  
Rich Cannon, Chair  
Duncan McCaig  
Beverly Moffatt  
Cheryl Perrin  
Joan Smith - Vice Chair  
David Williamson

Staff: Drew Barden  
Laura Demarinis  
David Gooley  
David Kliewer  
John Lang  
Bonnie Morris  
Bob Rieck

1. Introduction & Welcome

Rich Cannon opened the meeting and explained that the Board would be reviewing the revised safety net proposal, deliberating and making a decision. Rich reminded the guests to sign the list if they wanted to receive information on future meetings.

2. Review and Approval of February 9, 1987 and March 9, 1987 Meeting Minutes

February 9, 1987 - Approved

March 9, 1987 - Approved

### 3. Presentation of Revised Safety Net Proposal

Bonnie Morris gave a review of the EQC Order and the City Council Resolution to develop a financial safety net program for property owners in the affected area. Bonnie gave some information regarding the public hearing and summarized the testimony that was given.

#### Summary of March 9 Public Hearing

The major concerns of the citizens who testified were: the overall cost of the project; the "holes" in the safety net; the fact that renters and small business owners were not included in the plan; and not all property owners would have the safety net available to them.

The Board requested the City staff clarify the program concept and the eligibility criteria for participation. The Board's objective was that "no one should suffer financial hardship or the loss of their home because of sewers."

The staff recommendation for the revision of the original proposal was:

- . The original proposal for homeowners was recommended for implementation. Applicants who meet the three tests of income, assets and percentage of household costs would be automatically eligible for safety net assistance.
- . All other property owners would be eligible to apply for safety net assistance. Homeowners who do not meet the criteria, owners of businesses or rental property, schools, and non-profit organizations who feel that the cost of their sewers will cause them financial hardship can apply for the safety net through a review process. Each applicant will have an opportunity to state their special needs and have their case considered individually.

The recommended criteria to determine safety net eligibility in the review were:

- . To prevent the loss of shelter of any property owners.
- . To prevent the closure of businesses because of sewer costs.
- . To preserve the community's stock of low income housing.

### 4. Board Deliberation and Decision On Proposal

The Board expressed concern that they be able to review the forms, applications and administration of the program. This information is being worked on by the staff and will be brought to the Board during future meetings, for review.

The Board also expressed concern about monitoring the review process and being able to amend any decision or amend the entire program if necessary.

A motion was made by Cheryl Perrin to adopt the staff recommendations with the addition of quarterly report review, procedure review, review of financial statements and an annual review of the safety net program in general. Beverly Moffatt seconded, the motion was unanimously approved by the Board.

#### 5. Status Report on Safety Net Funding

Bob Rieck introduced David Gooley who talked about Senate Bill 878 and Senate Bill 117. He told that Glenn Otto had introduced the Bill and that it was now making its way through the legislature. He also talked about funding coming from the federal government, through the Clean Water Act.

#### 6. Briefing on Rate Study

Bob Rieck said that the rate study was not yet complete. He told the preliminary findings of the study showed that the rates would need to increase by 7 1/2%. He said though that the connection charges would not increase and the current differential for out of City residents would be dropped. He added that rates would go up throughout the City not just in the mid-County area. David Gooley explained some of the new connection costs. Drew Barden the Bureau's economist was introduced and he explained some of the actual rate calculations.

#### 7. Public Comments

There were several comments from the public.

Art Stevenson was concerned that the project was going to turn the entire area into slums and degrade the community.

Herb Brown stated that actual costs to the treatment plant should drop as more sewage flows into the plant.

Beverly Hanson was concerned that no one was willing to help the mid-County area with their problem.

Charles Barrier was concerned that the Board made their decision before they had heard any comments from the public. (Rich stated that testimony had been heard at the public hearing on March 9).

Jeanne Orcutt was concerned that the criteria for the safety net would not help very many people. She also wanted to know if the disabled rate and senior citizen rates would still be available.

8. Update and Discussion on Agenda Items for May 18 Meeting

Items to be placed on the next meeting agenda are:

- . A presentation regarding the mandatory connection program
- . An update on the monthly service charge without connection.
- . Continuation of discussion on administrative processes for the safety net program.
- . Legislative update.

The next meeting will be held on May 18th at 7:00 at the Multnomah County Education Service District Building, Auditorium at 220 SE 102nd.

The meeting was adjourned.



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John Lang, Administrator  
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**FINAL MINUTES**  
CITY OF PORTLAND  
CITIZENS' SEWER ADVISORY BOARD  
**APRIL 20, 1987**  
MULTNOMAH COUNTY EDUCATION SERVICE DISTRICT BLDG.  
AUDITORIUM

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Board Members:

Jane Baker  
Ed Benedict  
Rich Cannon, Chair  
Duncan McCaig  
Beverly Moffatt  
Cheryl Perrin  
Joan Smith - Vice Chair  
David Williamson

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**FINAL MINUTES**  
CITY OF PORTLAND  
CITIZENS' SEWER ADVISORY BOARD  
PUBLIC HEARING  
**MARCH 9, 1987**  
MADISON HIGH SCHOOL

In attendance at this meeting were:

Board Members:

Jane Baker  
Ed Benedict  
Rich Cannon, Chair  
Duncan McCaig  
Beverly Moffatt  
Cheryl Perrin  
Joan Smith - Vice Chair  
David Williamson

Rich Cannon welcomed everyone to the hearing. Rich introduced all of the Board members and the staff members sitting at the front table.

Rich explained that the Board was a group of involved and concerned citizens and were there as advocates of the public. He explained the Board had no ties to anyone and they receive no compensation. He said the Board was there to hear testimony and make a decision that would then be sent to the City Council for approval.

Rich laid out the ground rules for the hearing. He said that the Board was not there to answer questions, they were there to hear testimony. He added that there would be a 3 minute time limit and no yielding of time to another speaker. He told the public that the staff would be in the back room all evening to answer any questions that they had, or any questions that may come up regarding the safety net and the entire sewer project.

Rich explained that the Board would be taking testimony from citizens who had filled out the testimony cards and questions of speakers would not be allowed.

David Gooley reviewed what the costs were going to be for the sewer program and briefly explained how the safety net works.

Karen Kramer showed and explained the 2 examples of how the safety net works, from the mailout brochure.

The Board then took testimony from the following:

John Vogl - Mr. Vogl was concerned that the safety net was not saving people's home, it was only postponing losing homes. He thought that there should be a cap of 3% of takehome pay going to sewer, not closer to what it is now at about 10%. Mr. Vogl stated that the State should make up the difference.

Sharon Kelly - Ms. Kelly was representing the Eastside Business Alliance. This group represents about 2,000 businesses in East County. She believes that businesses should be considered in the safety net plan, especially small restaurants and very small businesses whose monthly net income is very low. She said that the Board should also consider the issue of spendable income and prepare an economic impact statement for not only businesses but the whole of East County. She stressed that the businesses and residents go "hand in hand".

Francis Goray - Ms. Goray is a 76 year old widow who has only herself to rely on. Her question to the Board was how people in her situation are supposed to deal with this added cost.

Walt Meyer - Mr. Meyer stated that he felt this project was too much of a property tax burden and that many people would be unable to pay. He mentioned other areas that had done similar projects for a lot less money.

Michelle Feagins - Ms. Feagins said that she has no way to pay, and she will lose her house. She added that the State should use lottery money to pay for the project.

Earl Meyers - Mr. Meyers was concerned about the maintenance of the sewer lines between the connection and the curb. He believes that no one should hook up to the sewer until there is a contract with the City stating they will handle this maintenance.

Rich Cannon reiterated that the Board was there to hear testimony regarding only the safety net proposal.

Robert Miller - Mr. Miller stated that if the project were handled properly that there would be no need for a safety net. He said that when annexed to the City, the people in East County would be paying money for services in Portland and if East County is helping Portland then Portland should hold them. He believes the City should pay, through assessments, for trunk lines and everything to bring the line up past the property owner's home. Mr. Miller told about a program in Vancouver, BC which was worked in this way and had worked out well.

Marci Herinck - Ms. Herinck stated that she believed the Board was trying to tell the people what they can and can't afford. She was concerned about the money that is being spent on the printing of the brochures that are mailed out to each property owner. She told the Board they had no right to put a 3 minute time limit on speaking. She felt the City should come up with a different program altogether.

Georgia Hoffman - Ms. Hoffman said that she was at the meeting on behalf of small businesses. She was concerned about some of the information that was given regarding small businesses, for example the tax credit. She said the tax credit would be spread over a 17 year period. Ms. Hoffman owns a small motel (used as apartments) in which tenants pay weekly rent. 87% of the tenants living there make \$400 a month or less. She said her bill to connect would be over \$29,000. She said that she would not pass on the costs to her renters. She said there is no safety and no net in the proposal. She feels unless some type of federal funding is found to help, people should refuse to hook up.

Herb Brown - Mr. Brown was representing the group United Citizens. He mentioned that unfair comments had been made by City and County officials about this group. He also noted that United Citizens had brought news to more people in the affected area than any other group. He said all the group seeks is just representation from local government. He stated that work should not continue on the project until bills that United Citizens have introduced have been decided on by the State Legislature and until the EQC and the State give their approval on the plan.

Pat Brown - Ms. Brown had quite a few problems with the safety net proposal, she commented on the Board making a decision when not all members were present at all of the meetings. She also said that the plan is not affordable. People should know the entire impact including taxes on schools, etc. Ms. Brown was also concerned about small businesses. She mentioned elderly people who had subdivided lots years ago and now it would become a liability to them. She also stated that there were going to be more charges than people have been told about. Ms. Brown also said that it is not right or fair to have total family income being considered.

Les Langston - Mr. Langston's main concern was that people already have too many bills and one more on top of it will make many lose their homes. He stated that the City needs to find some other way to finance the program. Mr. Lanston also indicated that people at the meeting should be talking to the City Council and not to the Board.

Art Stevenson - Mr. Stevenson spoke about a program in Washington that the whole State was responsible for paying for. He said that the people living in the affected are are not guilty but are being treated as if they are. He believes the entire State should do something to solve this problem of clean water.

Jack Powell - Mr. Powell stated that he can afford to pay the sewer, and if he had his way he wouldn't pay anything. There are too many people who are unable to pay and the citizens should not be dictated to.

Jeanne Orcutt - Ms. Orcutt said that the safety net proposal was not developed or approved by the Board, she mentioned that there had only been 4 members present at the last meeting. There is no overall relief program and the safety net is simply a loan deferral program. She noted that the safety net was as yet unfunded. She was also concerned that criteria had not been developed for appeals, and renters and businesses were not included.

Dan Phegley - Mr. Phegley's main concerns with the safety net proposal were that the affected area should pay, sewer costs cannot be subsidized they can only be deferred. He was also concerned about the fact that tax savings were nominal for businesses. He said that if people in this area could help everyone else out but no one was willing to help them out. He stated that 80% of small businesses have less than \$10,000, and that there was no member on the Board representing small businesses.

Mary Lou Jone - Ms. Jone chose to address the people rather than the Board. She stated that the assessments, at the time a home is sold the lien has to be paid, she felt it should just be added on to the selling price of the home.

Bonnie Morris of the City staff gave a brief summary on the written testimony that had been received:

- 3 letters were from people inquiring if their personal situation would qualify them for the safety net program.
- 3 questioned the validity of the EQC findings and the validity of the entire project.

- I that the Board make their decision on humanitarian issues rather than financial issues.
- I did not have the money to pay and did not want a lien against his property.
- I asked to have the Board consider no interest loans for low income, not quite eligible for the safety net.

#### Return to Testimony

Roger Hergenrader - Mr Hergenrader believes that the program is just a money-generating plan. He stated that whether money comes from the State or from the feds, it still comes from the people. He was also concerned about having to pay for different permits and being forced to pay, having no options.

A report was given by Jane Witcher on questions that were being asked in the back room. Jane said that the major portion of citizens were asking when the sewer was going in and how much it is going to cost. 10 to 20% of the people wanted to know if given their personal situation, would they qualify for the safety net.

#### Further Testimony

Joe Garrett - Mr. Garrett was concerned about the overall cost of permits and the costs that have to be paid by contractors. He was also concerned about what taxpayers may have to pay for schools.

Barbara Letchet - Ms. Letchet was concerned about the overwhelming costs, she has only owned her home for 4 years and hopes she will not have to lose it. She felt that the City or the State should pick up the assessment fee.

#### Close of Testimony

The Board then began deliberations and commenting on what they had heard.

Ed Benedict - Ed stated that some of the citizens were misinformed. He said that he felt the State should help take some of the burden off the citizens, he added though that this was probably unlikely since they don't have the resources available either. He said that sewers are inevitable but should not be a hardship and he would not like to see anyone lose their home.



Duncan McCaig - Mr. McCaig stated that he was not connected to the City; he was there representing the citizens. He agreed that sewers are inevitable and have already been mandated by the State. He believes though that the safety net should include renters and small businesses to some extent. He also said that it would be difficult to find funds and there is not a lot of money in the State. He noted that the City was helping to some extent by providing their Bancroft bonding and making it available to everyone so that they would not have to borrow from private lending institutions with higher interest rates.

David Williamson - Mr. Williamson was surprised that no one spoke of the need for a fully funded State program, although this was mentioned to some extent. He also said that sewers are inevitable. He mentioned that he has had a problem all along with several aspects of the safety net proposal-primarily the exclusion of renters. He is concerned about all types of renters, mobile home, etc.

Jane Baker - Ms. Baker said she also shared the concerns of the other Board members. Her major concerns were for funding of schools, small businesses and rental property owners. She was also concerned about some of the extra ordinary cases and hardships. She would like to see some type of relief to lower the cost of the entire program. She said she did not have enough information to make a decision immediately.

Joan Smith - Ms. Smith said she agreed with what had already been said by the other Board members. She said that there was some misinformation that the public had, for example, the idea that a family would have to sell a second car. She was concerned about small businesses and needs more information to make a decision and also wants more information on an appeals process. She suggested that more information regarding schools, churches, etc., and how to lighten their burden be found.

Rich Cannon - Mr. Cannon had a great deal of doubt that the job is completely done. He also has a great deal of concern about small businesses. He agreed with the other Board members that there is no doubt the sewers are going to be built. He said that he could not at this time make any decision.

Beverly Moffatt - Ms. Moffatt thanked the people for coming to the hearing although she said some had been less than informed. She said that if the citizens would get their facts from the Bureau, then they would only get one set of facts. She was also concerned about small businesses. She has a major concern with students living at home having their income added to household income. She believes that the City should have a charge for Bull Run water users to help to lower costs of the entire program. She also said that she was not prepared to make any decision.

Cheryl Perrin - Ms. Perrin agreed that the City and the Board needed to go back and look at the issue of small businesses. She added that it would not be possible to satisfy everyone with any plan, but the Board should work on getting as fair a plan as possible. She said she thought the City had done an excellent job of putting information together. She stated that the State and federal funding are very hard to get. She explained that this is a geographical issue and almost all communities have something that they think the State should pay for and it all comes down to population numbers.

There was no motion for a vote. The Board directed that additional studies be made by the staff on small businesses, the renter policy and other financing that may be available.

Rich Cannon said the next Board meeting would be held on April 13th at the East County Office at 7:00 pm.

Beverly Moffatt moved to adjourn and Cheryl Perrin seconded the motion.

Meeting adjourned.

139:minutes3/9



CITY OF

# PORTLAND, OREGON

BUREAU OF ENVIRONMENTAL SERVICES

Bob Koch, Commissioner  
John Lang, Administrator  
1120 S.W. 5th Ave.  
Portland, Oregon 97204-1972

FINAL MINUTES  
CITY OF PORTLAND  
CITIZENS' SEWER ADVISORY BOARD  
PUBLIC HEARING  
MARCH 9, 1987  
MADISON HIGH SCHOOL

In attendance at this meeting were:

Board Members:

Jane Baker  
Ed Benedict  
Rich Cannon, Chair  
Duncan McCaig  
Beverly Moffatt  
Cheryl Perrin  
Joan Smith - Vice Chair  
David Williamson

Rich Cannon welcomed everyone to the hearing. Rich introduced all of the Board members and the staff members sitting at the front table.

Rich explained that the Board was a group of involved and concerned citizens and were there as advocates of the public. He explained the Board had no ties to anyone and they receive no compensation. He said the Board was there to hear testimony and make a decision that would then be sent to the City Council for approval.

Rich laid out the ground rules for the hearing. He said that the Board was not there to answer questions, they were there to hear testimony. He added that there would be a 3 minute time limit and no yielding of time to another speaker. He told the public that the staff would be in the back room all evening to answer any questions that they had, or any questions that may come up regarding the safety net and the entire sewer project.

Rich explained that the Board would be taking testimony from citizens who had filled out the testimony cards and questions of speakers would not be allowed.

David Gooley reviewed what the costs were going to be for the sewer program and briefly explained how the safety net works.

Karen Kramer showed and explained the 2 examples of how the safety net works, from the mailout brochure.

The Board then took testimony from the following:

John Vogl - Mr. Vogl was concerned that the safety net was not saving people's home, it was only postponing losing homes. He thought that there should be a cap of 3% of takehome pay going to sewer, not closer to what it is now at about 10%. Mr. Vogl stated that the State should make up the difference.

Sharon Kelly - Ms. Kelly was representing the Eastside Business Alliance. This group represents about 2,000 businesses in East County. She believes that businesses should be considered in the safety net plan, especially small restaurants and very small businesses whose monthly net income is very low. She said that the Board should also consider the issue of spendable income and prepare an economic impact statement for not only businesses but the whole of East County. She stressed that the businesses and residents go "hand in hand".

Francis Goray - Ms. Goray is a 76 year old widow who has only herself to rely on. Her question to the Board was how people in her situation are supposed to deal with this added cost.

Walt Meyer - Mr. Meyer stated that he felt this project was too much of a property tax burden and that many people would be unable to pay. He mentioned other areas that had done similar projects for a lot less money.

Michelle Feagins - Ms. Feagins said that she has no way to pay, and she will lose her house. She added that the State should use lottery money to pay for the project.

Earl Meyers - Mr. Meyers was concerned about the maintenance of the sewer lines between the connection and the curb. He believes that no one should hook up to the sewer until there is a contract with the City stating they will handle this maintenance.

Rich Cannon reiterated that the Board was there to hear testimony regarding only the safety net proposal.

Robert Miller - Mr. Miller stated that if the project were handled properly that there would be no need for a safety net. He said that when annexed to the City, the people in East County would be paying money for services in Portland and if East County is helping Portland then Portland should hold them. He believes the City should pay, through assessments, for trunk lines and everything to bring the line up past the property owner's home. Mr. Miller told about a program in Vancouver, BC which was worked in this way and had worked out well.

Marci Herinck - Ms. Herinck stated that she believed the Board was trying to tell the people what they can and can't afford. She was concerned about the money that is being spent on the printing of the brochures that are mailed out to each property owner. She told the Board they had no right to put a 3 minute time limit on speaking. She felt the City should come up with a different program altogether.

Georgia Hoffman - Ms. Hoffman said that she was at the meeting on behalf of small businesses. She was concerned about some of the information that was given regarding small businesses, for example the tax credit. She said the tax credit would be spread over a 17 year period. Ms. Hoffman owns a small motel (used as apartments) in which tenants pay weekly rent. 87% of the tenants living there make \$400 a month or less. She said her bill to connect would be over \$29,000. She said that she would not pass on the costs to her renters. She said there is no safety and no net in the proposal. She feels unless some type of federal funding is found to help, people should refuse to hook up.

Herb Brown - Mr. Brown was representing the group United Citizens. He mentioned that unfair comments had been made by City and County officials about this group. He also noted that United Citizens had brought news to more people in the affected area than any other group. He said all the group seeks is just representation from local government. He stated that work should not continue on the project until bills that United Citizens have introduced have been decided on by the State Legislature and until the EQC and the State give their approval on the plan.

Pat Brown - Ms. Brown had quite a few problems with the safety net proposal, she commented on the Board making a decision when not all members were present at all of the meetings. She also said that the plan is not affordable. People should know the entire impact including taxes on schools, etc. Ms. Brown was also concerned about small businesses. She mentioned elderly people who had subdivided lots years ago and now it would become a liability to them. She also stated that there were going to be more charges than people have been told about. Ms. Brown also said that it is not right or fair to have total family income being considered.

Les Langston - Mr. Langston's main concern was that people already have too many bills and one more on top of it will make many lose their homes. He stated that the City needs to find some other way to finance the program. Mr. Lanston also indicated that people at the meeting should be talking to the City Council and not to the Board.

Art Stevenson - Mr. Stevenson spoke about a program in Washington that the whole State was responsible for paying for. He said that the people living in the affected are are not guilty but are being treated as if they are. He believes the entire State should do something to solve this problem of clean water.

Jack Powell - Mr. Powell stated that he can afford to pay the sewer, and if he had his way he wouldn't pay anything. There are too many people who are unable to pay and the citizens should not be dictated to.

Jeanne Orcutt - Ms. Orcutt said that the safety net proposal was not developed or approved by the Board, she mentioned that there had only been 4 members present at the last meeting. There is no overall relief program and the safety net is simply a loan deferral program. She noted that the safety net was as yet unfunded. She was also concerned that criteria had not been developed for appeals, and renters and businesses were not included.

Dan Phegley - Mr. Phegley's main concerns with the safety net proposal were that the affected area should pay, sewer costs cannot be subsidized they can only be deferred. He was also concerned about the fact that tax savings were nominal for businesses. He said that if people in this area could help everyone else out but no one was willing to help them out. He stated that 80% of small businesses have less than \$10,000, and that there was no member on the Board representing small businesses.

Mary Lou Jone - Ms. Jone chose to address the people rather than the Board. She stated that the assessments, at the time a home is sold the lien has to be paid, she felt it should just be added on to the selling price of the home.

Bonnie Morris of the City staff gave a brief summary on the written testimony that had been received:

- 3 letters were from people inquiring if their personal situation would qualify them for the safety net program.
- 3 questioned the validity of the EQC findings and the validity of the entire project.

- I that the Board make their decision on humanitarian issues rather than financial issues.
- I did not have the money to pay and did not want a lien against his property.
- I asked to have the Board consider no interest loans for low income, not quite eligible for the safety net.

#### Return to Testimony

Roger Hergenrader - Mr Hergenrader believes that the program is just a money-generating plan. He stated that whether money comes from the State or from the feds, it still comes from the people. He was also concerned about having to pay for different permits and being forced to pay, having no options.

A report was given by Jane Witcher on questions that were being asked in the back room. Jane said that the major portion of citizens were asking when the sewer was going in and how much it is going to cost. 10 to 20% of the people wanted to know if given their personal situation, would they qualify for the safety net.

#### Further Testimony

Joe Garrett - Mr. Garrett was concerned about the overall cost of permits and the costs that have to be paid by contractors. He was also concerned about what taxpayers may have to pay for schools.

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#### Close of Testimony

The Board then began deliberations and commenting on what they had heard.

Ed Benedict - Ed stated that some of the citizens were misinformed. He said that he felt the State should help take some of the burden off the citizens, he added though that this was probably unlikely since they don't have the resources available either. He said that sewers are inevitable but should not be a hardship and he would not like to see anyone lose their home.

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Jane Baker - Ms. Baker said she also shared the concerns of the other Board members. Her major concerns were for funding of schools, small businesses and rental property owners. She was also concerned about some of the extra ordinary cases and hardships. She would like to see some type of relief to lower the cost of the entire program. She said she did not have enough information to make a decision immediately.

Joan Smith - Ms. Smith said she agreed with what had already been said by the other Board members. She said that there was some misinformation that the public had, for example, the idea that a family would have to sell a second car. She was concerned about small businesses and needs more information to make a decision and also wants more information on an appeals process. She suggested that more information regarding schools, churches, etc., and how to lighten their burden be found.

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Beverly Moffatt - Ms. Moffatt thanked the people for coming to the hearing although she said some had been less than informed. She said that if the citizens would get their facts from the Bureau, then they would only get one set of facts. She was also concerned about small businesses. She has a major concern with students living at home having their income added to household income. She believes that the City should have a charge for Bull Run water users to help to lower costs of the entire program. She also said that she was not prepared to make any decision.



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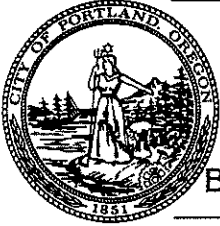
There was no motion for a vote. The Board directed that additional studies be made by the staff on small businesses, the renter policy and other financing that may be available.

Rich Cannon said the next Board meeting would be held on April 13th at the East County Office at 7:00 pm.

Beverly Moffatt moved to adjourn and Cheryl Perrin seconded the motion.

Meeting adjourned.

139:minutes3/9



CITY OF

# PORTLAND, OREGON

BUREAU OF ENVIRONMENTAL SERVICES

Bob Koch, Commissioner  
John Lang, Administrator  
1120 S.W. 5th Ave.  
Portland, Oregon 97204-1972

FINAL MINUTES  
CITY OF PORTLAND  
CITIZENS' SEWER ADVISORY BOARD  
February 9, 1987  
7:00 - 9:00 PM  
1517 NE 122ND AVENUE

In attendance at this meeting were:

Board Members:

Rich Cannon, Chair  
Beverly Moffatt  
Joan Smith - Vice Chair  
David Williamson

Staff:

John Lang  
Laura Demarinis  
Karen Kramer  
David Kliewer  
David Gooley  
Bob Rieck

1. Welcome and Purpose of Work Session

Rich opened the meeting and explained that it would be a worksession with board and staff. He noted that any public comments would be taken during the last 15 minutes of the meeting. The purpose of the meeting was to review a recommendation for the safety net that would eventually be submitted to Council for a decision. There will be a public hearing on this recommendation on March 9, 1987.

2. Review and Approval of Minutes from January 12, Meeting

Approved

3. Safety Net Worksession

The facilitator for the meeting was Karen Kramer.

David Gooley reviewed why the Safety Net had come into existence. He then explained in detail the four costs associated with the sewer program. The first cost being the assessment cost, then the connection fee, the private plumbing costs and the monthly user fees.

David explained that with the existing City low-interest loan program assessment costs and connection charges can be financed by all sewer customers, including homeowners, businesses and institutions. Private plumbing costs however must be paid or financed through private lending institutions. David explained that the proposed safety net proposal is a deferral program and that all customers using the proposal would have their connection deferred. This automatically means that the connection fee and the private plumbing costs would also be deferred. The amount that cannot be deferred is the assessment because that fee pays for the sewer line that must be installed. Therefore, the safety net proposal focuses on the assessment costs - estimated to be \$3,150 for a 70 x 100 ft. lot.

The subject of who would be eligible for the proposal was discussed. There was in depth discussion as to why institutions and businesses were not being recommended to be eligible for the Safety Net. Bob Rieck explained that this group has other ways to relive the costs. They have tax write offs, and businesses can pass costs onto customers. Bob explained that the Safety Net should be targeted for those who need it the most; homeowners. The homeowner has no way to get rid of the cost. Bob added that there would however be an appeals process for other groups.

There was also some concern regarding renters and the Safety Net. David Williamson stated that most renters were young families because rental homes can be low cost housing. He was also concerned that the landlords would just pass on the cost to the renters.

Gooley said that there were approximately 20,000 rental units in the area about 1/2 of which were multi-family. David said that in the implementation plan the cost would be \$10 to \$20 if the landlord passed the entire cost of sewers on the the tenant. Gooley also said that there are tax advantages for homeowners renting out a home. Because of market pressure landlords would probably not pass the cost on to renters, since the renter always has the option of moving. David also added that by including renters in the Safety Net, it would raise the cost of the entire program. This discussion resulted in two major additions to the proposal:

1. An appeal process should be available to all new customers, including businesses, residential rental property owners and institutions.
2. The safety net proposal will have a 5 year review period to allow the Board to assess its effectiveness.

David Gooley talked about the criteria for qualifying for the Safety Net. Income, must be at 200% or less of the poverty level. He showed how the scale would work for below 75% to 200% of poverty level. The next criteria is assets, households will be allowed their primary

residence, household furnishings, one automobile and \$20,000 of additional net assets. The third criteria is the amount of household costs. Household costs include: mortgage payments, average utility cost and sewer assessments, sewer connection fees and private plumbing improvements (assuming connection to the sewer has occurred). These costs must be greater than 30% of household income to meet the criteria.

David said that it was concluded from the consultant study that approximately 9,000 households would be eligible to apply for the Safety Net program.

There was some concern about the assets test and the household income test not being very concrete. There was also some concern about children (living at home) having their own income (for college, etc.) being added into total household income.

David spoke on interest rates on deferrals. Based on the consultants study the Safety Net revolving loan fund would require approximately \$12 million dollars. A smaller amount of money would be needed if there was an interest rate charged. What interest rate is charged will depend on the funding source that is used. The interest would be simple, not compound. There would probably have to be some type of low interest to cover at least administrative costs. The Board determined that the proposal should have a low interest rate in the range of 3% - 6%.

David told the group that State funding had a much better chance now because of the passage of the Clean Water Act.

The group decided that they would summarize and distribute the proposal at the public hearing on March 9th.

Karen Kramer asked the Board how they would like to advertise for the public hearing and gave them several options. The Board decided that the best way was to mail out a notice to all property owners and residents in the area.

It was also decided that the meeting would start at 6:00 pm instead of the usual 7:00. Rich Cannon, Joan Smith and John Lang will decide on the criteria for the public hearing.

Richard Hofland of the City of Gresham complimented the Board on their work and inquired about several details associated with the proposal.

Jeanne Orcutt confirmed the Board's decision on mailing the safety net notice to all residents and inquired about Craig Childs (who recently resigned from the board) replacement.

Page Four  
Final Minutes 2/9/87

Jack Taylor was concerned about why the assessments are based on square footage rather than frontage.

Joe Garrett asked how the contracting system worked and commented on the need to make sure contractors did the job according to specifications.

The meeting was adjourned. The next meeting will be a public hearing on March 9th, 1987.

126:minutes2/9



CITY OF

# PORTLAND, OREGON

BUREAU OF ENVIRONMENTAL SERVICES

Bob Koch, Commissioner  
John Lang, Administrator  
1120 S.W. 5th Ave.  
Portland, Oregon 97204-1972

FINAL MINUTES  
CITY OF PORTLAND  
CITIZENS' SEWER ADVISORY BOARD  
February 9, 1987  
7:00 - 9:00 PM  
1517 NE 122ND AVENUE

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126:minutes2/9



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# PORTLAND, OREGON

BUREAU OF ENVIRONMENTAL SERVICES

Bob Koch, Commissioner  
John Lang, Administrator  
1120 S.W. 5th Ave.  
Portland, Oregon 97204-1972

FINAL MINUTES  
CITY OF PORTLAND  
CITIZENS' SEWER ADVISORY BOARD  
January 12, 1987  
7:00 - 9:00 PM  
1517 NE 122ND AVENUE

In attendance at this meeting were:

Board Members:

Jane Baker  
Ed Benedict  
Rich Cannon, Chair  
Duncan McCaig  
Beverly Moffatt  
Joan Smith - Vice Chair  
David Williamson

Staff:

John Lang  
Laura Demarinis  
Karen Kramer  
David Kliewer  
David Gooley  
Bob Rieck

Consultants:

Dave Hasson - CH2M Hill  
Dicksy Scott - CCA, Inc. Seattle

1. Welcome and Purpose of Meeting

Rich Cannon welcomed everyone and explained that the cable television cameras would be there covering this and future meetings.

Rich thanked Joan Smith for her great job as Chair at the December meeting.

Rich said that the Board would be discussing the safety net proposal in more depth and they would be making no decision until the next meeting.

Rich introduced John Lang who then introduced the Bureau's new customer assistance program manager, Bonnie Morris. Bonnie will be working out of the Customer Service Office in east county.

Rich introduced the new commissioner for the Bureau, Bob Koch. Commissioner Koch said that working with the Bureau was a great opportunity to do good work. He also said he was pleased with the management of the Bureau and their sense of direction. He said that the City has an obligation and commitment to provide cost effective, easily obtained sewer systems without economic stress. The Commissioner went on to say that his and John Langs' doors would always be open.

2. Review and approval of minutes from December 15, 1986 meeting.

The minutes were approved with an attached memorandum from Jeanne Orcutt.

3. Questions and Clarification to Written Material Attached to Agenda; Follow up to Issues Raised at 12/15 meeting.

- a. New Date On Income Distribution

David Hasson presented the more detailed information on income distribution in the affected area. Jane Baker commented that 45% of households under \$20,000 was substantial.

Duncan McCaig asked the staff if there was any additional information on businesses in the area. David Gooley told him that the Bureau has hired a CPA firm to examine after tax income for businesses to acquire more details.

Dave Hasson talked about a sample that was taken from the Portland Business Licences. This sample showed gross sales and compensation to owners. Dave noted that in 71% of the cases compensation to owners was greater than net profits. Dave said that profit figures themselves don't tell all. These seem to be cases of businesses that are run out of the home where sewer assessment impact would be shared with the dominant residential use.

Duncan McCaig said that the picture was not as bleak as we had thought before, when looking at overall compensation to owners.

b. Private Plumbing Costs and Financing

Duncan said that he was surprised that such a large portion of homeowners had paid fees out of their savings and if a different area had been surveyed, would it be the same? Hasson said his personal opinion was that it was surprising and he did think that in a different area not as many homeowners would pay out of their savings.

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Jane Baker asked what kinds of bonds would be sold and Gooley answered that it would be Bancroft bonds and that Bancroft Bonding would be available for connection fees and assessments. Someone in the audience asked what the length of time was on Bancroft Bonds, Gooley said that it was 5 years, 10 years or 20 years. Beverly Moffatt asked if the length was at the homeowners options and was told yes.

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David Gooley stated that the level of funding would be between \$8.5 and \$12.5 million. Gooley talked about the evaluation criteria for the funding sources: funding adequacy, public assistance policy-costs spread widely--ability to pay criteria--responsibility appropriate, funding affordability and ease of implementation. He went through each of the sources explaining the criteria (in handout). The sources he spoke about were: State Funding, interest surcharge, water system funding and sewer system funding. Gooley said that based on analysis and discussion, State Funding would be the most appropriate. This would be done by applying to the State's Pollution Control Bond Fund for the total or partial amount. This would require legislative approval.

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Jeanne Orcutt mentioned some other sources of funds that could be looked into such as the water and sewer surcharge program franchise fee, the cigarette and liquor tax and the \$180 million windfall tax.

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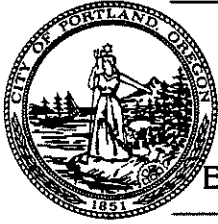
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8. Review of Agenda for February 9, 1987

The Board will continue its discussion on the safety net eligibility criteria and funding sources.

Lang asked the Board if there was any objection to the City working on preparation to acquire State funding, the Board was in favor of the City starting this work.



CITY OF  
**PORTLAND, OREGON**  
BUREAU OF ENVIRONMENTAL SERVICES

**Bob Koch, Commissioner**  
John Lang, Administrator  
1120 S.W. 5th Ave.  
Portland, Oregon 97204-1972

**FINAL MINUTES**  
CITY OF PORTLAND  
CITIZENS' SEWER ADVISORY BOARD  
**January 12, 1987**  
7:00 - 9:00 PM  
1517 NE 122ND AVENUE

In attendance at this meeting were:

Board Members:

Jane Baker  
Ed Benedict  
Rich Cannon, Chair  
Duncan McCaig  
Beverly Moffatt  
Joan Smith - Vice Chair  
David Williamson

Staff:

John Lang  
Laura Demarinis  
Karen Kramer  
David Kliewer  
David Gooley  
Bob Rieck

Consultants:

Dave Hasson - CH2M Hill  
Dicksy Scott - CCA, Inc. Seattle

1. Welcome and Purpose of Meeting

Rich Cannon welcomed everyone and explained that the cable television cameras would be there covering this and future meetings.

Rich thanked Joan Smith for her great job as Chair at the December meeting.

Rich said that the Board would be discussing the safety net proposal in more depth and they would be making no decision until the next meeting.

Rich introduced John Lang who then introduced the Bureau's new customer assistance program manager, Bonnie Morris. Bonnie will be working out of the Customer Service Office in east county.



Rich introduced the new commissioner for the Bureau, Bob Koch. Commissioner Koch said that working with the Bureau was a great opportunity to do good work. He also said he was pleased with the management of the Bureau and their sense of direction. He said that the City has an obligation and commitment to provide cost effective, easily obtained sewer systems without economic stress. The Commissioner went on to say that his and John Langs' doors would always be open.

2. Review and approval of minutes from December 15, 1986 meeting.

The minutes were approved with an attached memorandum from Jeanne Orcutt.

3. Questions and Clarification to Written Material Attached to Agenda; Follow up to Issues Raised at 12/15 meeting.

- a. New Date On Income Distribution

David Hasson presented the more detailed information on income distribution in the affected area. Jane Baker commented that 45% of households under \$20,000 was substantial.

Duncan McCaig asked the staff if there was any additional information on businesses in the area. David Gooley told him that the Bureau has hired a CPA firm to examine after tax income for businesses to acquire more details.

Dave Hasson talked about a sample that was taken from the Portland Business Licences. This sample showed gross sales and compensation to owners. Dave noted that in 71% of the cases compensation to owners was greater than net profits. Dave said that profit figures themselves don't tell all. These seem to be cases of businesses that are run out of the home where sewer assessment impact would be shared with the dominant residential use.

Duncan McCaig said that the picture was not as bleak as we had thought before, when looking at overall compensation to owners.

b. Private Plumbing Costs and Financing

Duncan said that he was surprised that such a large portion of homeowners had paid fees out of their savings and if a different area had been surveyed, would it be the same? Hasson said his personal opinion was that it was surprising and he did think that in a different area not as many homeowners would pay out of their savings.

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CITY OF

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BUREAU OF ENVIRONMENTAL SERVICES

Bob Koch, Commissioner  
John Lang, Administrator  
1120 S.W. 5th Ave.  
Portland, Oregon 97204-1972

FINAL MINUTES  
CITY OF PORTLAND  
CITIZENS' SEWER ADVISORY BOARD  
DECEMBER 15, 1986  
7:00 - 9:00 PM  
1517 NE 122ND AVENUE

In attendance at this meeting were:

Board Members:

Jane Baker  
Ed Benedict  
Duncan McCaig  
Beverly Moffatt  
Joan Smith - Vice Chair  
David Williamson

Staff:

John Lang	David Gooley
Laura Demarinis	Bob Rieck
Karen Kramer	Lee Klingler
David Kliever	Lester Lee

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1. Review and Approval of Minutes

Joan Smith, chair of the meeting in Rich Cannon's absence, started the meeting by asking for any comments or problems with the November 5th meeting's minutes. None were noted. Final minutes will be prepared and mailed to members.

2. Written Staff Reports

- a. Private Sector Prepayment Program, Karen Kramer  
No comments, no questions.
- b. Report on South Mid-County Interceptor Facility Plan, Lester Lee  
No comments, no questions.

c. Report on 122nd Avenue and Cherry Park Interceptor Construction Schedule and Public Information Activities

Jane Baker asked for a clarification of the construction center next to the Cherry Park Pump Station. Lee Klingler noted that this Center was a temporary construction trailer.

3. Presentation on Safety Net Program, Bob Rieck and David Gooley

Bob Rieck spoke briefly on the safety net plan and introduced David Gooley, Dave Hasson from CH2M Hill and Dicksy Scott from CCA, Inc. in Seattle.

SEWER COSTS

David Gooley spoke about different tables (included in the handout). He talked about the estimated sewer cost and said that the current estimate was \$4,750 (for property of 7000 sq. ft.). This estimate was lower than the original estimate. He added that the City would stay with the original estimate to be conservative. David spoke about the financing of sewer costs, cash price, monthly payment, connection deferral, and the safety net program concepts.

DEMOGRAPHIC DATABASE

David Hasson of CH2M Hill spoke from the handout about the database for mid-County. He said a database was necessary to check the Implementation Plan, update data, add to data and provide information to estimate eligibility. Data base includes population, households, income, properties, businesses, etc. The data came from 70 sources, 49 public and 21 private (a list of examples is in the handout). He talked about population and households, 1986 population by age, 1986 income levels, 1979 income in relation to poverty, numbers of businesses, numbers of employees, businesses by profit level, businesses by employment level, 1986 properties and 1986 delinquent taxes and foreclosures.

There was some concern among Board members about 1986 income levels and what percent were closer to \$15,000 than \$25,000 and \$25,000 to \$50,000.

David Williamson was concerned about the fact that household size was missing and that there is some difficulty in looking at some of these numbers because they are 1979 numbers. Dave Hasson told the Board that he would be unable to get this information; it is not available.

Jane Baker asked David Gooley why 80% of private plumbing costs were \$2,000 or less. David told her that the City has a breakdown of costs and a lot was dependent on the situation. There was some questions about where cesspools were located in relation to costs. David said it appeared that cesspools in backyards were approximately \$200 more.

Jane asked if connection fees were the same outside of the City boundaries. David Gooley said that currently connection fees outside the boundaries were one and one half times that of inside. He also added that the City would be working on a new rate study soon to review this situation.

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Guests then voiced some concerns. Herb Brown wanted to know if financing can now be figured out at the new estimate. David said yes. Jean Orcutt had some concern about unexpected costs during construction (running into rocks, boulders). Bob Rieck told her that these costs were included in the total estimate.

Dicksy Scott went into her portion of the presentation on eligibility criteria. Dicksy spoke about several tables in the handout including monthly income in relation to poverty level, and monthly income to median income in the Portland Metropolitan statistical area. She said that many programs use the poverty level as their source. She added that median income is locally adjusted. She told the Board that the average size household was 2.5 persons.

Dicksy showed some more tables using an average payment of \$33.33 per month. The next table showed the impact on an average household without the safety net. The estimated household budget was at 200% of the poverty level. Definitions including income household and assets and then the program definitions of income, housing expense and net assets.

Monthly housing costs in relation to median income were looked at and Dicksy stated that median income residents probably really didn't need assistance and that there are some problems with the median income level approach. From a poverty level approach 200% and below would need assistance and 75% and below would need to have full assistance.



## FINANCING

David Hasson then spoke on the financing of the safety net program. He talked about the financing assistance alternatives. This is where the fund pays the assessment or the fund pays the assessment payments. He discussed sources of funds, funding source considerations and key factors in fund financing.

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Bob Rieck told the Board that there were really two issues that needed the Board's attention: 1) eligibility, and 2) sources of funds for the safety net.

The Board was asked if they had any questions. Ed Benedict asked that the safety net plan have room for exceptions, extraordinary situations, and be flexible.

David Williamson raised a question regarding low income renters. Dicksy was saying that renters are looked at much differently than a single family. The landlord doesn't necessarily have to pass on the costs to the renters. John Lang added that renters were a whole different program. Joan Smith stated, and the Board agreed, that renters should not be put aside.

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Some discussion was made about GI funded homes and Bancrofting. Bob Rieck stated that there was not any problem with this as far as he knew.

6. Board Discussion and Review of Next Meeting Agenda

Joan Smith said that she would like to see a report with the advantages and disadvantages of each safety net approach.

The Board decided that it would like to see more sources of funding and that they would like to see things in dollars and cents. They would also like to see more information on real budgets, real numbers and maybe some actual case studies.

For the next meeting's agenda, the Board will discuss safety net funding in more depth.

The next meeting will be Monday, January 12, 1987, because of the holiday on January 19, 1987.

DATE: JANUARY 12, 1987  
TO: CITIZENS' SEWER ADVISORY BOARD  
FROM: JEANNE ORCUTT  
SUBJECT: CORRECTIONS TO DECEMBER 15, 1986 MINUTES OF THE CITIZENS' SEWER  
ADVISORY BOARD MEETING.

The statements attributed to Jeanne Orcutt in the minutes of the December 15th Citizens' Sewer Advisory Board meeting are incorrect. I request that the minutes be correct to reflect what I said.

In response to my question as to whether much rock or boulders were encountered in the Argay Sewer Project, the answer I received was "no". Therefore, we can assume that sewer costs will be considerably higher in most of the affected area where they will encounter a lot of rock and huge boulders.

I definitely did not state that the safety net would have high interest rates that would be passed on to others. What I said was that the so called "safety net" will only create a greater debt for those who cannot afford to pay their sewer assessment because interest charged on the postponed costs will create an even greater debt. That property owners who cannot afford to pay their sewer assessment in cash should not have to pay additional interest to subsidize a safety net program which they do not qualify for.

I also stated that the Senior Citizen Deferral Program was not a good deal for seniors because the state adds 6% interest on top of the interest charged on the bankrofted assessment. That the debt together with the interest will soon erode any equity they have in their homes.

*J.O.*



CITY OF

**PORTLAND, OREGON**

BUREAU OF ENVIRONMENTAL SERVICES

**Bob Koch, Commissioner**  
John Lang, Administrator  
1120 S.W. 5th Ave.  
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**FINAL MINUTES**  
CITY OF PORTLAND  
CITIZENS' SEWER ADVISORY BOARD  
**DECEMBER 15, 1986**  
7:00 - 9:00 PM  
1517 NE 122ND AVENUE

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Ed Benedict  
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Beverly Moffatt  
Joan Smith - Vice Chair  
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The Board decided that it would like to see more sources of funding and that they would like to see things in dollars and cents. They would also like to see more information on real budgets, real numbers and maybe some actual case studies.

For the next meeting's agenda, the Board will discuss safety net funding in more depth.

The next meeting will be Monday, January 12, 1987, because of the holiday on January 19, 1987.



DATE: JANUARY 12, 1987  
TO: CITIZENS' SEWER ADVISORY BOARD  
FROM: JEANNE ORCUTT  
SUBJECT: CORRECTIONS TO DECEMBER 15, 1986 MINUTES OF THE CITIZENS' SEWER  
ADVISORY BOARD MEETING.

The statements attributed to Jeanne Orcutt in the minutes of the December 15th Citizens' Sewer Advisory Board meeting are incorrect. I request that the minutes be correct to reflect what I said.

In response to my question as to whether much rock or boulders were encountered in the Argay Sewer Project, the answer I received was "no". Therefore, we can assume that sewer costs will be considerably higher in most of the affected area where they will encounter a lot of rock and huge boulders.

I definitely did not state that the safety net would have high interest rates that would be passed on to others. What I said was that the so called "safety net" will only create a greater debt for those who cannot afford to pay their sewer assessment because interest charged on the postponed costs will create an even greater debt. That property owners who cannot afford to pay their sewer assessment in cash should not have to pay additional interest to subsidize a safety net program which they do not qualify for.

I also stated that the Senior Citizen Deferral Program was not a good deal for seniors because the state adds 6% interest on top of the interest charged on the bancrofted assessment. That the debt together with the interest will soon erode any equity they have in their homes.

*J.O.*



CITY OF

# PORTLAND, OREGON

BUREAU OF ENVIRONMENTAL SERVICES

Dick Bogle, Commissioner  
John Lang, Administrator  
1120 S.W. 5th Ave.  
Portland, Oregon 97204-1972

CITY OF PORTLAND  
CITIZENS' SEWER ADVISORY BOARD  
NOVEMBER 5, 1986  
7:00 - 9:00 PM  
1517 NE 122ND AVENUE

In attendance at this meeting were:

Board Members:

Jane Baker	Beverly Moffatt
Ed Benedict	Cheryl Perrin
Rich Cannon, Chair	Joan Smith
Craig Childs	David Williamson
Duncan McCaig	

Staff:

John Lang	David Gooley
Laura Demarinis	Bob Rieck
Karen Kramer	Bill Gaffi
David Kliewer	David Logsdon

Guests:

Joe Miller	Scott Beyers
Charles Farrier	Oren Ogle
Gayland German	Betty Denbo
Kay Foetisch	Tom Dennehy
Maureen Ruip	Jean Orcutt
Dan Phegley	Max Bickford
Lynda Lesowski	
Kent Leary	

## 1. Welcome and Introductions

Rich Cannon welcomed the committee, staff and guests. Each committee member introduced himself or herself and explained their interest in the project.

John Lang also thanked the committee and guests for their interest in the project and expressed how important the Board's work would be to the Bureau. He also introduced the staff present.

Rich reviewed the agenda, recommending that for tonight's meeting public comments would be taken at the end. He also briefly discussed the Board's responsibilities, suggesting that the Board keep in mind that their task was to assist the Bureau in implementing the Sewer Plan not "re-invent the wheel".

## 2. Introductory Briefing

John gave a short report on project history. Using a Fact Sheet, which he distributed, he summarized the characteristics of the affected area: size, population, costs and schedules. He also discussed the EQC Order and distributed a copy of that document along with a chronology of events spanning 20 years that led up to the Order.

John then reviewed the Board's responsibilities in the project. He passed out "Exhibit A" which details the role of the Board as adopted by the City Council. The key responsibilities include: advising the Bureau on how to appropriately implement the sewer project; to be advocates of the project by holding meetings and soliciting neighborhood involvement; and to act as a appeals board for safety net financing.

John also conveyed the three areas that are very important to the Bureau's work program currently. These are: financing the project; the immediate sewer projects such as the large interceptors that are now being designed; the public information program.

## 3. Status Reports on Work Now Underway

Public Information - Karen Kramer briefed the Board on the Public Information Programs. The program includes the preparation of a comprehensive plan and carrying out immediate public information activities. She emphasized the importance of the Customer Service Center and the six publications and two videos that are planned. The first publication to be distributed in the next few weeks is the "Come On, Portland, Give Us The Facts" newsletter which she showed the Board in mock-up form. Jane Baker asked how the publications would answer questions regarding mobile home courts, schools and churches. Karen said the publication on sewer facts for commercial and institutional property owners would cover those questions.

Safety Net Financing - Bob Rieck discussed the origins and objectives of the safety net program. He noted that "safety net" has meant different things at different times in the planning process. He explained to the committee that consultants were now working to develop the program in detail. The Board has a significant role in this development and Bob specifically requested their assistance in the following program features: eligibility criteria; access to the program; and the design of benefit packages. Because of the pressing need, the safety net will be the first major issue on the Board's work program.

Current construction - Bill Gaffi introduced the Bureau's current sewer construction work. He noted that, although the \$362 million Mid-County Sewer Project was certainly large, the Bureau has built over \$100 million of sewer facilities in the last decade. He explained that the Mid-County project includes 36 miles of trunk lines, 314 miles of lateral lines and 224 miles of house branches. Currently 16.4 miles have been constructed, 14 miles are currently under construction and 28 miles are being designed. He described the Bureau's program for encouraging voluntary LID's. Even though the project is mandatory, some neighborhoods may find it simpler and less expensive to move in advance of their schedule.

#### 4. Committee Discussion

Jane Baker inquired about the Board's role vis a vis the Gresham area. John explained that staff is working with Gresham but the Board is Portland's Board and Gresham had decided to use its City Council as its "sewer board".

Jane and Beverly Moffatt asked about private companies offering investments as a sewer prepayment plan. John suggested staff investigate and talk to the City Attorney about if there is a role for City staff in informing the public to use "caveat emptor" in their dealings with investors and plumbers.

Rich asked how the public should be able to get a message to the Board. Karen suggested using 248-4114 since that is the project phone number. Staff will set up a system to convey public questions and concerns to the Board.

#### 5. Discussion on Future Meeting Arrangements:

Role of Public Testimony - The Board reaffirmed their commitment to hear the public. They decided to arrange agendas so that public comments could occur after each subject and before any board action (Motion: Childs, second: Moffatt)

Meeting times and Places - The Board decided to meet the 3rd Monday of each month from 7:00 pm to 9:00 pm at the Mid-County Office (with the exception of special meetings). (Motion: Moffatt, second: Ed Benedict)

Public Notice Procedures - Karen informed the Board of procedures used for this meeting: Notice to interested persons, Oregonian and Outlook calendar. There was general consensus that these procedures should continue.

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#### 6. Public Testimony

The following people testified:

Joseph Miller who expressed a concern about water quality in the Bull Run Watershed and offered the Board copies of his book.

Dan Phegley who inquired about financing and asked how costs were going to be fairly spread.

Jean Orcutt who questioned whether the Board should be promoting voluntary LID's. In response, the Board clarified that they would not solicit or impose LID's but that they would facilitate them as appropriate.

Tom Dennehy questioned the notion that sewers are less expensive now than they will be in the future. He encouraged the Board to seek full information about costs and financing.

George Muir noted to the Board that much of the affected area is in the City limits. He asked why has that area gone unsewered so long.

The meeting was adjourned at 9:00.

The next meeting will be December 15, 1986, 7:00 to 9:00 pm at the Mid-County Office.

KK:lld  
126:min/kk



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KK:lld  
126:min/kk

SUMMARY OF  
REMEDIAL ACTION ACTIVITIES  
AT  
UNITED CHROME PRODUCTS SUPERFUND SITE

Prepared by: Tom Miller, Remedial Project Manager  
Oregon DEQ

INTRODUCTION

Remedial Action at the United Chrome Products site is underway with construction<sup>1</sup> completion and operation<sup>2</sup> startup scheduled for June 6, 1988. The cleanup involves building demolition and removal, excavation and removal of chromium-contaminated plating tanks and chromium-contaminated dry well soils, extraction of chromium-contaminated ground water, treatment for removal of chromium, and discharge to the Corvallis wastewater treatment plant. Ground water treatment will continue for approximately 10 years.

BACKGROUND

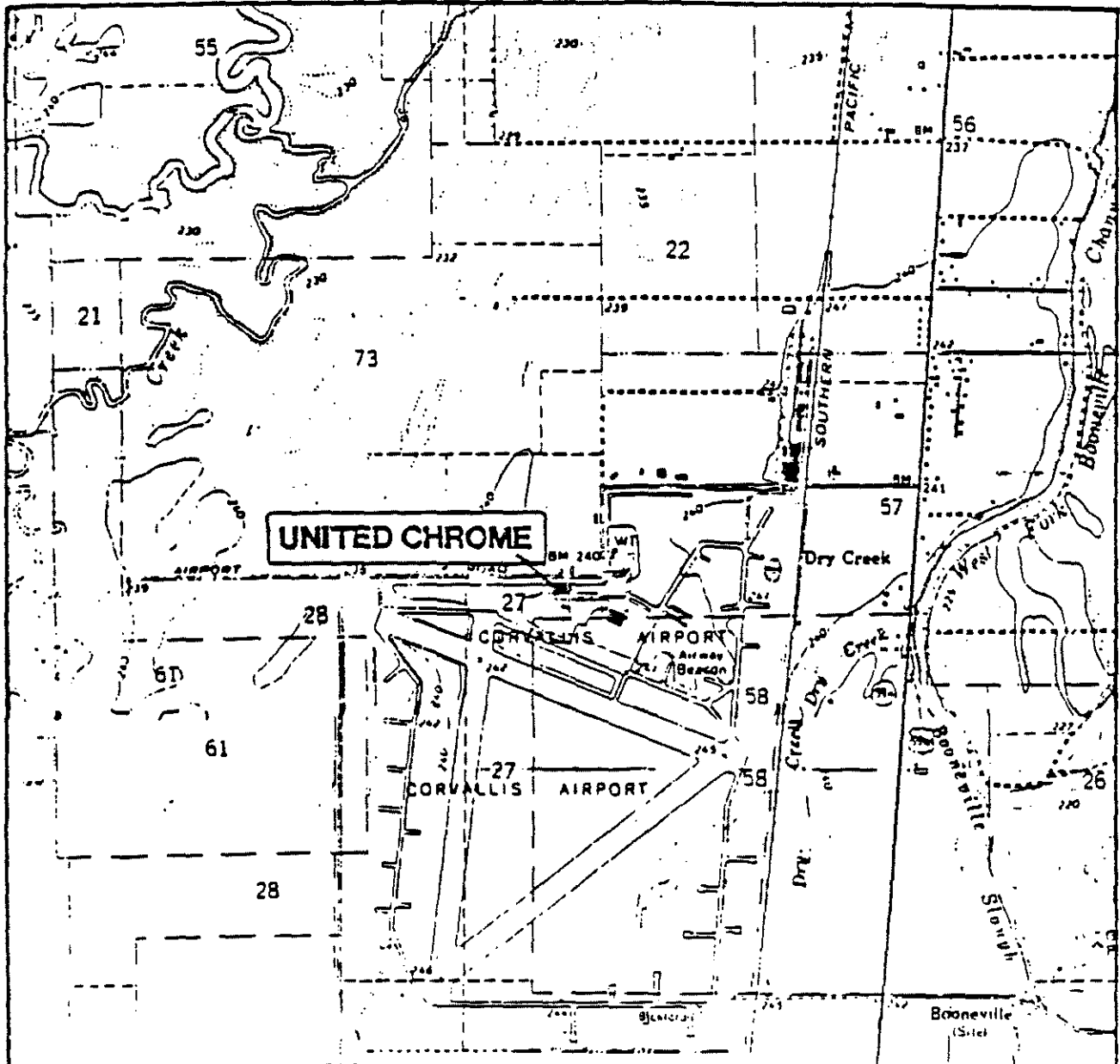
The United Chrome Products site, located in Corvallis, Oregon, is a former industrial hard chrome plating facility consisting of a single building on approximately 1.5 acres. The site and all contiguous properties are owned by the City of Corvallis. (see figure 1)

The former chrome plating operations resulted in contamination of surface water (local drainageways), soils and ground water beneath the site with hexavalent chromium. Leaking plating tanks and onsite disposal of wastewaters in a "dry well" are considered the primary contributors to the contamination. (see figure 2, 3, and 4)

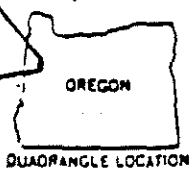
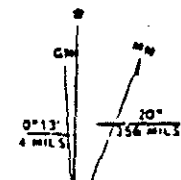
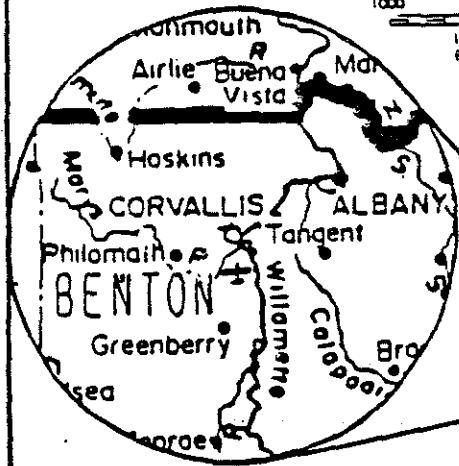
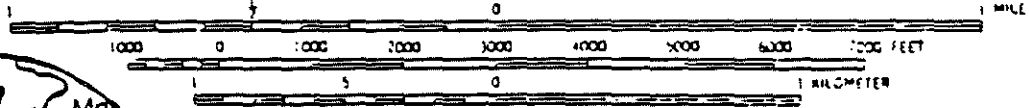
Footnotes:

1) Construction includes such activities as building demolition, soil and tank excavation, installation of groundwater extraction wells, and installation of a package wastewater treatment plant.

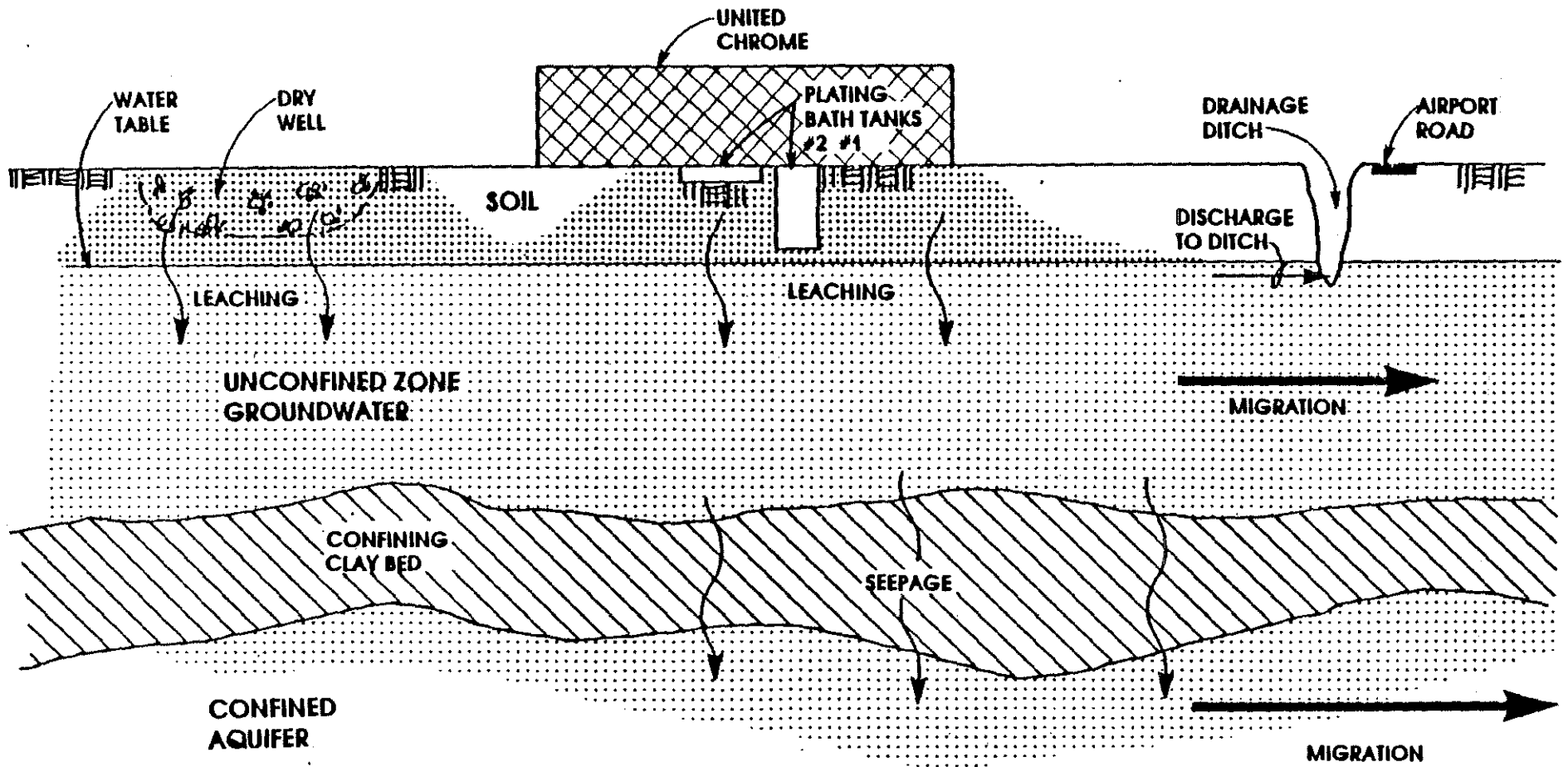
2) Operation means the activities after construction is complete and the well pumps and water treatment plant are turned on.



SCALE 1:24,000

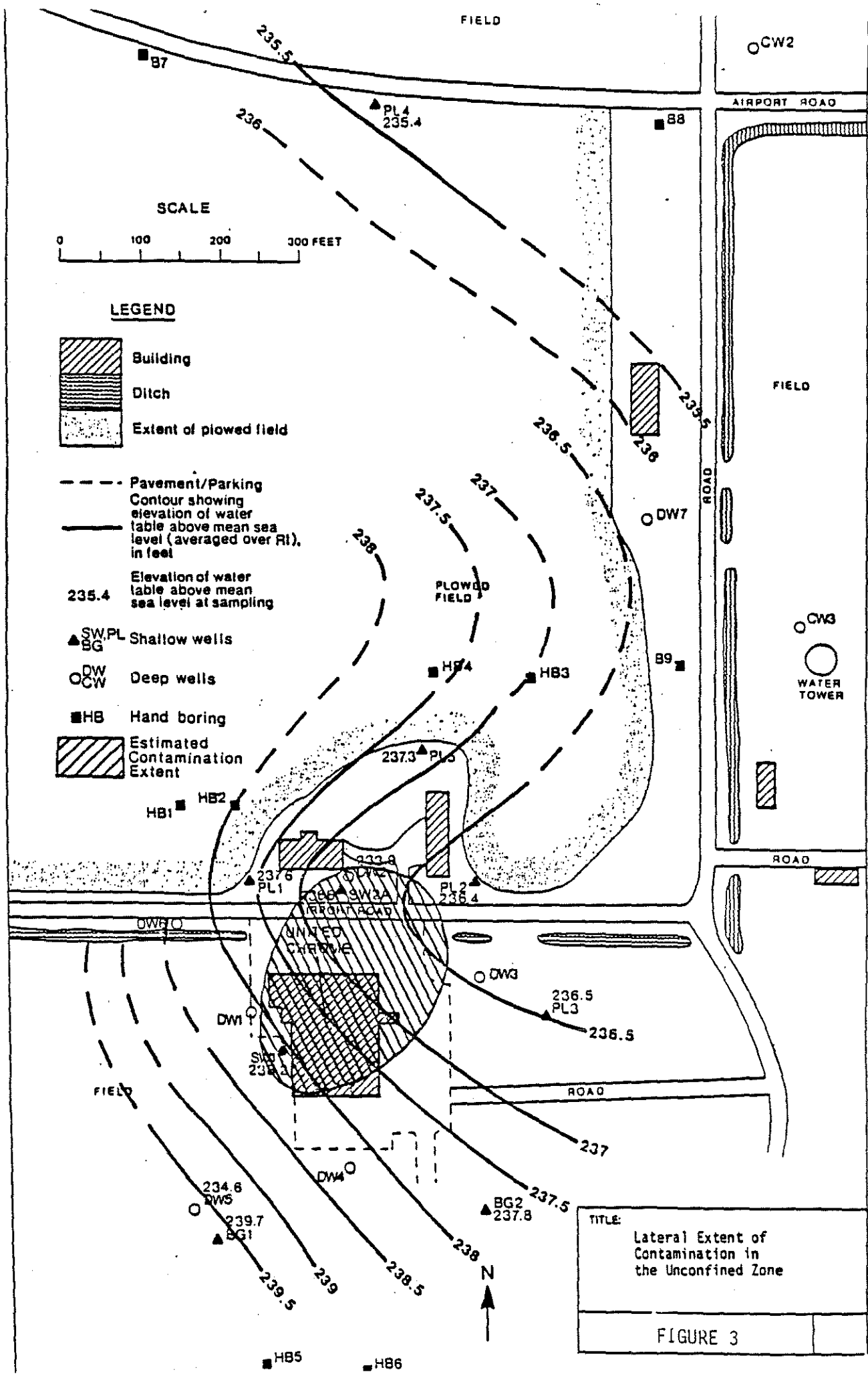


**FIGURE 1**  
**LOCATION MAP**  
**UNITED CHROME PRODUCTS**  
**CORVALLIS, OREGON**  
 UNITED CHROME FS



NOTE: Section taken along axis of contaminant plume




FIGURE 2





**SCALE**



**LEGEND**

-  Building
-  Ditch
-  Extent of plowed field

-  Pavement/Parking
-  Contour showing elevation of water table above mean sea level (averaged over Rt), in feet

235.4 Elevation of water table above mean sea level at sampling

▲ SW, PL Shallow wells

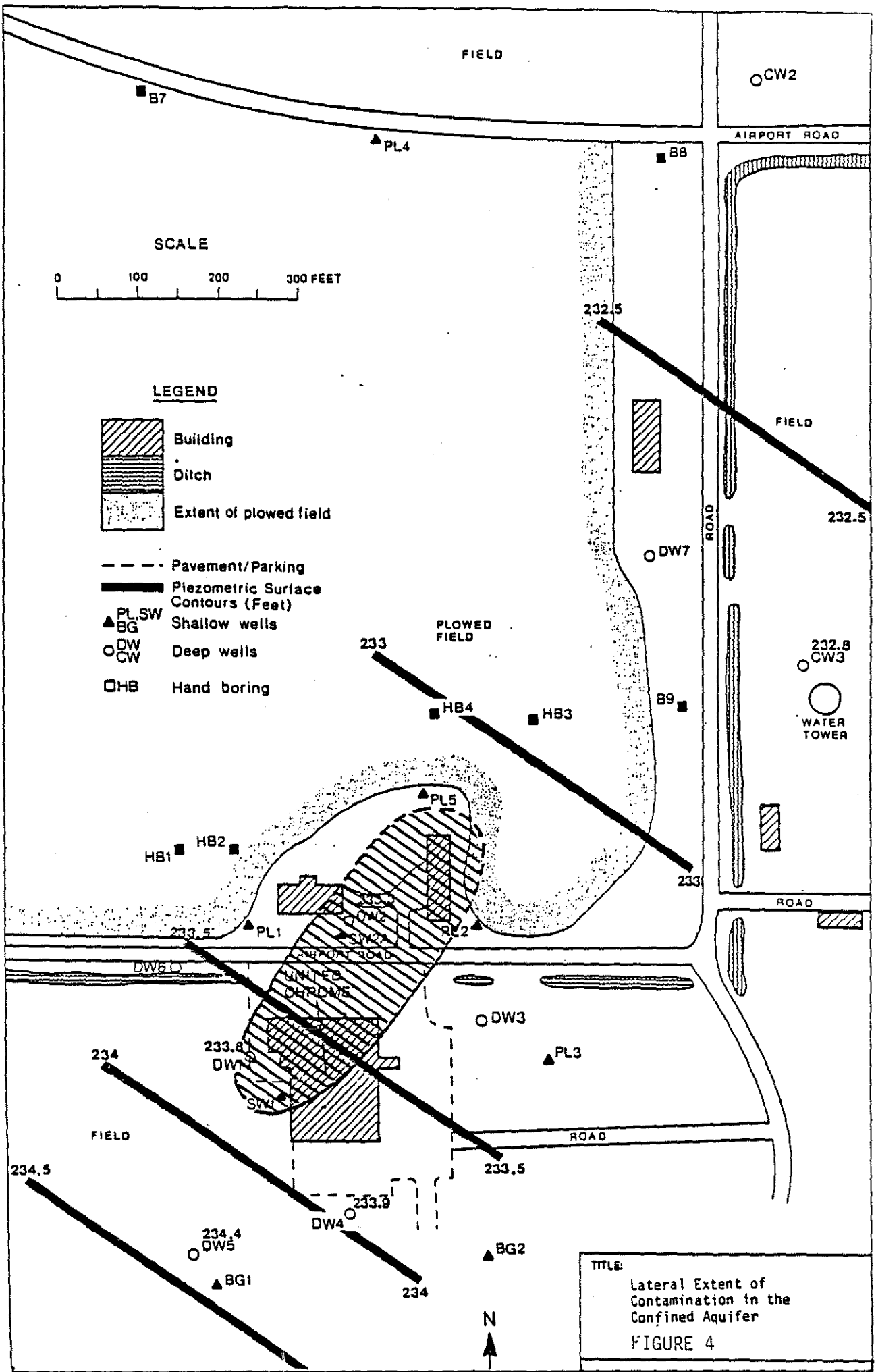
○ DW, CW Deep wells

■ HB Hand boring

 Estimated Contamination Extent









TITLE:  
Lateral Extent of Contamination in the Unconfined Zone

FIGURE 3



SCALE  
0 100 200 300 FEET

**LEGEND**

-  Building
-  Ditch
-  Extent of plowed field
-  Pavement/Parking
-  Piezometric Surface Contours (Feet)
-  PL, SW  
BG Shallow wells
-  DW  
CW Deep wells
-  HB Hand boring

TITLE:  
Lateral Extent of Contamination in the Confined Aquifer  
FIGURE 4

## NATURE AND EXTENT OF CONTAMINATION

Based on the results of the Remedial Investigation and other studies, the following definition of contamination at the United Chrome Products site has been developed.

- o Soil and sediment in and below the dry well disposal area contains elevated concentrations of chromium and can be classified as hazardous.
- o Soil beneath the concrete floor of the United Chrome Products building in the vicinity of the two plating bath tanks is heavily contaminated with chromium and can be classified as hazardous.
- o Chromium contamination exists in the two saturated zones beneath the site, the upper unconfined zone and the lower confined aquifer. This suggests there is seepage of contaminants through the intermediate confining clay bed. Total chromium concentrations in excess of drinking water standards have been measured in both zones. Chromium levels are highest in the upper zone. It is also believed that contamination in the lower zone may be partially due to drilling techniques employed during the remedial investigations.
- o Contamination extends down-gradient beyond the site boundaries in both saturated zones.
- o Contamination has been detected, at levels below the drinking water standard for chromium, in two of the city owned supply wells and two privately owned residential wells northeast of the site.
- o Surface water and sediments are contaminated with chromium, in excess of the 0.02 mg/L water quality standard and the 5 mg/L extraction procedure toxicity standard for soil. Contamination extends over 2 miles offsite in surface water, all the way to the Booneville Channel of the Willamette River, and over 1.5 miles offsite in surface sediments.
- o Organic contamination has not occurred at the site.

## SUMMARY OF REMEDIAL ACTION

On September 12, 1986, EPA signed a Record of Decision, which documents their final selection of remedy for the site. With concurrence of the Oregon DEQ and the City of Corvallis, EPA selected a remedy containing the following directives:

- o Install shallow extraction wells to extract chromium contaminated ground water from the unconfined zone.
- o Install deep extraction wells to extract chromium-contaminated ground water from the confined aquifer.
- o Install an onsite treatment system to remove chromium from extracted ground water for discharge to the City of Corvallis Wastewater Treatment Facility.
- o Excavate and dispose of approximately 350 tons of contaminated soil at a RCRA-permitted disposal facility. Use the excavation pits for percolation basins to flush chromium contamination from remaining soils.
- o Install culverts in adjacent drainage ditches to isolate the local surface water drainage system from chromium-contaminated surface water and ground water.

The cleanup criteria for the confined aquifer is 0.05 mg/L chromium, the drinking water standard, because this aquifer is considered a drinking water source and is in direct hydraulic connection with the local drinking water supply wells.

The cleanup criteria for the unconfined zone is 10 mg/L chromium. This concentration represents the minimum cleanup required to protect the local drinking water supply. The drinking water standard was not used because the unconfined zone is not being used as a drinking water source anywhere in the area, and because the present level of contamination would likely make it technologically or economically infeasible to achieve this standard.

#### COST OF THE REMEDIAL ACTION

The total estimated cost for the entire project, Remedial Investigation through 10 years of Operation and Maintenance, is \$6,000,000. The State's cost share is estimated at \$734,860.

Table 1 summarizes the cost breakdown for the various elements of the project and identifies those elements the State is responsible for.



COST SUMMARY

UNITED CHROME PRODUCTS

Remedial Investigation, Feasibility Study, Remedial Design,  
Remedial Action, Operation and Maintenance.

Remedial Investigation/Feasibility Study	\$ 219,500
Community Relations	\$ 6,000
Immediate Removal Action	\$ 81,030
EPA Technical Assistance Team	\$ 4,720
Remedial Design	\$ 266,590
Remedial Action	\$1,748,610
10 years Operations & Maintenance	\$3,100,000
EPA and DEQ Oversight Costs (including 10 years O&M)	\$ 500,000

TOTAL ESTIMATED PROJECT COSTS =====> \$5,926,450

STATE'S COST SHARE

10% of Remedial Action Costs	\$ 174,860
10% of Operation and Maintenance	\$ 310,000
Oversight Costs not covered by EPA	\$ 250,000

TOTAL ESTIMATED STATE'S COST SHARE =====> \$ 734,860

ENVIRONMENTAL QUALITY COMMISSION

BREAKFAST MEETING  
MARCH 11, 1988

GROUNDWATER RESOURCES MANAGEMENT PROGRAM DEVELOPMENT

ROBIN HARROWER, DEQ  
NEIL MULLANE, DEQ  
GREG PETTIT, DEQ

I. INTRODUCTION

- A. GROUNDWATER PROGRAM DEVELOPMENT ACTIVITY
- B. STATE WATER RESOURCES MANAGEMENT PROGRAM  
( WATER RESOURCES DEPARTMENT )

II. BACKGROUND

A. GROUNDWATER QUALITY PROTECTION PROGRAM DEVELOPMENT

- 1. PROBLEM ASSESSMENT
- 2. PROBLEM SOLUTIONS - PREVENTION/CORRECTION
- 3. STATEWIDE GROUNDWATER PROTECTION POLICY
  - a. Initial Policy 1981
  - b. Experience and Advancements in Technology
  - c. New and Expanded Regulatory Programs
  - d. Revisions Currently Proposed
- 4. INTERAGENCY COORDINATION

III. STATE GROUNDWATER RESOURCES MANAGEMENT PROGRAM

- 1. ASSEMBLE STATUTES/RULES/PROGRAMS
- 2. DEVELOP MATRIX ILLUSTRATING AGENCIES AND PROGRAMS
- 3. DETERMINE ADEQUACY OF PROGRAMS TO PROVIDE ESSENTIAL ELEMENTS OF A COMPREHENSIVE GROUNDWATER MANAGEMENT PROGRAM
  - a. Aquifer Characterization
  - b. Aquifer Classification

c. Groundwater Quality Standards

d. Contamination Control

e. Aquifer Monitoring

f. etc.

4. IDENTIFICATION OF PROGRAM GAPS

a. Where There are Missing Authorities/Coverage

5. IDENTIFICATION OF PROGRAM CONFLICTS

6. PRODUCTS

a. Working Document

b. Executive Summary

c. List of Gaps and Conflicts

ASSESSMENT OF OREGON'S GROUNDWATER FOR  
AGRICULTURAL CHEMICALS

Greg Pettit

State of Oregon, Department of Environmental Quality,  
Water Quality Division, Portland, Oregon

Abstract

The Oregon Department of Environmental Quality coordinated an interagency project to assess the groundwaters of the state for contamination from agricultural chemicals, including nitrates and pesticides. Participating agencies included: 1) U.S. Environmental Protection Agency, 2) U.S. Geological Survey, 3) Oregon State University, 4) Oregon State Health Division, 5) Oregon Water Resources Department, 6) Oregon Department of Agriculture, and 7) Oregon Department of Environmental Quality. Over 380 public and private drinking water supply wells were tested statewide for pesticides, volatile organics, and inorganic compounds. Sampling was concentrated in those areas that were identified as being most vulnerable to contamination, as determined by a variety of factors including: pesticide use, shallow aquifers, farming practices, soils, and precipitation. The pesticides EDB, DCPA, Bromacil, Dinoseb, Aldicarb, and 1,2-dichloropropane were detected in drinking water wells. Nitrate-N levels were found in certain areas to commonly exceed 30 mg/l, and levels exceeding 80 mg/l were detected. Public water supply wells, were for the most part, found to be free of contamination.

Introduction

In the state of Oregon, as in many other states, there is a general lack of knowledge on the occurrence of agricultural chemicals in groundwater. The Oregon Department of Environmental Quality (DEQ) is currently conducting a program to determine the extent and nature of groundwater contamination from pesticides and nitrates.

Until recently, it was generally assumed that field application of most pesticides would not result in groundwater contamination because these compounds were thought to volatilize or degrade rapidly. In addition, methods for the analysis of trace concentrations of pesticides were not

usually available or were quite expensive. When groundwater was analyzed for pesticides, it was usually just for the six pesticides for which there are drinking water standards, and for which there are widely available analytical capabilities. These particular pesticides are not likely groundwater contaminants due to their physical properties, so they usually were not detected. Not detecting these pesticides confirmed the widely held belief that pesticides were, for the most part, not contaminating groundwater.

By the late seventies and early eighties analytical capabilities for detecting a wide range of pesticides at low concentrations became more widely available and in certain areas of the country analyses for more types of pesticides began to be more common. California, New York, Wisconsin, and Florida were among the first states to report certain pesticides being discovered in groundwater (Holden, 1986). The increased awareness of pesticide contamination in groundwater as a result of these discoveries has led to a rapid increase in groundwater pesticide assessment throughout the country.

The purpose of this paper is to describe a project the state of Oregon has undertaken to assess the extent of groundwater contamination from agricultural chemicals in Oregon, and the results discovered to date. The project has two goals: 1) to determine if contamination currently exist, and if so, with what, and to what extent, and 2) to determine if a correlation between vulnerability factors and actual contamination can be established. The project is designed to provide a basis of information upon which to build future activities.

The Oregon Department of Agriculture had conducted some analyses for pesticides in well water, but this work has been limited in scope. In June of 1985 a more extensive effort began in Oregon, when the EPA, who at that time administered the Oregon public drinking water program, included analyses for 13 pesticides in a groundwater quality survey that it was conducting in the Ontario area (Bruck, 1986). That initial effort eventually grew into the state-wide assessment project that is currently being conducted.

#### PROJECT DESIGN

The Oregon DEQ has primary responsibility for coordinating and conducting the statewide assessment project. A number of other federal, state, and local agencies are participating in the project including:

#### Participating Agencies:

1. USEPA -- Provide project grant, support in survey design, and laboratory support.
2. DEQ -- Program and monitoring sections conduct statewide pesticide study, overall project coordination, laboratory analyses, produce final report.

3. Oregon Department of Agriculture -- Perform the majority of the laboratory pesticide analyses.
4. Oregon Health Division -- Notification of health risks associated with pesticides found in drinking water, sampling of public water supply wells.
5. Oregon Water Resources Department -- Provide hydrogeologic expertise, and well logs.
6. Oregon State University Extension Service -- Liaison to agricultural community, provide crop and pesticide use information.
7. USGS -- Hydrologic information, maps, and digitization and geographical information system (GIS) capabilities.

Sampling was initiated in June, 1985, and was completed in December, 1987. Since this survey is the first attempt to try to identify the nature and extent of contamination from agricultural chemicals in Oregon, it targeted the areas that were thought to have the highest likelihood of contamination. Focusing on those areas will provide the greatest capability for determining if a significant problem related to these chemicals exists.

Analyses for fifteen to twenty-five pesticides was generally conducted in each study area. Pesticides for each area were selected on the basis of: 1) quantity of local use, and 2) ranking on the EPA prioritization list for the national pesticide survey (USEPA, 1985). This list ranks pesticides on a scale of A to D as to their likelihood of being a groundwater contaminant. Rankings are based on persistence, toxicity, evidence of existence as a groundwater contaminant, and primarily, leaching potential. Table 1 shows the specific pesticides for which analyses were performed for each study area.

The project consists of four basic elements:

1. Sample highly vulnerable domestic wells;
2. Sample public water supply wells in priority areas;
3. Compile information on pesticide use by county;
4. Establish a data base in a geographical information system (GIS), and compare results to suspected vulnerability factors.

The following data (statewide) was entered into the USGS geographical information system:

1. Water bodies
2. Geological units

## Table 1. Pesticide Analytes

Willamette Valley -----	Boardman Area -----	Ontario Area -----	Klamath Falls Area -----	Curry County -----
ALACHLOR	ALACHLOR	ALACHLOR	ALDICARB	ALDICARB
ATRAZINE	ALDICARB	ALDICARB	BROHOXYNIL	BENCKYL
BENTAZON	ATRAZINE	CARBOFURAN	CAPTAN	CARON DISULFIDE
BHC, Gamma	BENCKYL	CYANAZINE	CARBOFURAN	CHLOROTHALONIL
BROBACIL	BUTYLATE	DACTHAL	CARBOXIN	CIPC
BUTYLATE	CAPTAN	DINOSEB	CHLOROTHALONIL	FENAMIFOS
CARBOFURAN	CARBARYL	FONOFOS	CHLORPYRIFOS	METASYSTOX
CARBOXIN	CARBOFURAN	HEXACHLOROBENZENE	DICAMBA	PCNB
CYCLOATE	CHLOROTHALONIL	HEXAZINONE	DIMETHOATE	SIMAZINE
DIAZINON	CYANAZINE	NETOLACHLOR	DISULFOTON	1,2-DIBROMOMETHANE (EDB)
DICAMBA	DACTHAL	METIBUZIN	EPTAM (EPTC)	1,2-DICHLOROETHANE
DINOSEB	DIAZINON	PROPACHLOR	ETHOPROP	1,2-DICHLOROPROPANE
DISULFOTON	DICAMBA	SIMAZINE	MCPA	cis-1,3-DICHLOROPROPENE
DIURON	DICHLORAN	1,2-DIBROMOETHANE (EDB)	METHYL PARATHION	trans-1,3-DICHLOROPROPENE
ENDRIN	DINOSEB	1,2-DICHLOROETHANE	METIBUZIN	
FONOFOS	DISULFOTON	1,2-DICHLOROPROPANE	PARATHION	
HEXAZINONE	EPTAM (EPTC)	cis-1,3-DICHLOROPROPENE	PHOSMET	
MCPA	FONOFOS	trans-1,3-DICHLOROPROPENE	PROXANIDE	
METHOMYL	HEXAZINONE	2,4-D	PROPHAM (IPC)	
METHOXYCHLOR	MCPA	2,4-DB	SIMAZINE	
NETOLACHLOR	METIBUZIN		1,2-DIBROMOMETHANE (EDB)	
METIBUZIN	PENTACHLOROPHENOL		1,2-DICHLOROETHANE	
PENTACHLOROPHENOL	PHORATE		1,2-DICHLOROPROPANE	
PHORATE	SIMAZINE		cis-1,3-DICHLOROPROPENE	
PROXANIDE	THIOFENATE		trans-1,3-DICHLOROPROPENE	
PROPHAM (IPC)	1,2-DIBROMOETHANE (EDB)		2,4-D	
SILVEX	1,2-DICHLOROETHANE			
SIMAZINE	1,2-DICHLOROPROPANE			
TERBACIL	cis-1,3-DICHLOROPROPENE			
TOXAFLUENE	trans-1,3-DICHLOROPROPENE			
1,2-DIBROMOETHANE (EDB)	2,4-D			
2,4-D				

3. Shallow aquifers
4. Precipitation
5. Soils
6. Land use
7. Locator information

At the outset of the project representatives from the participating agencies met to determine the areas to be sampled. The entire state was evaluated to determine areas where groundwater could be vulnerable to contamination from agricultural chemicals. In making this determination the following characteristics were evaluated:

1. Sensitive aquifers as determined by Sweet Edwards map 1981 (see Figure 1);
2. Irrigation practices;
3. Crops grown;
4. Pesticide and fertilizer practices;
5. Precipitation;
6. Soils;
7. Geology;
8. Evidence of existing problems.

From the evaluation of this information a subjective prioritization of twelve areas in the state was made. The following is a list of those areas by priority:

1. Treasure Valley (Ontario Area)
2. Boardman
3. Curry County
4. Lane County
5. Klamath Falls
6. Washington County
7. Hood River
8. Milton-Freewater





9. Yamhill County
10. Prineville/Madras/Redmond Areas
11. Hermiston
12. East Multnomah County

These areas contain the majority of the intensive agricultural land in the state. They were selected so as to contain areas representing all of the major intensive agricultural areas in the state. The sampling program consisted of three phases: 1) initial sampling of vulnerable domestic wells; 2) follow-up and confirmational sampling in areas where pesticides were detected; and 3) sampling of the most vulnerable public water supply wells in each of the twelve areas. Sampling of domestic wells was not conducted in all of the twelve areas designated because of limited resources. Domestic wells were sampled in the following areas (Figure 1):

1. Treasure Valley (Ontario)
2. Boardman/Hermiston
3. Curry County
4. Klamath Falls
5. Willamette V. (Lane, Washington, Multnomah, Marion, Linn counties)

#### Well Selection

Wells to be sampled in each area were determined on the basis of suspected vulnerability and susceptibility to contamination, and availability of information on well construction and depth. Well logs for each of the areas were evaluated to determine where shallow wells existed, and where there was a lack of restrictive layers between the land surface and the aquifer. Reconnaissance surveys and consultation with local Extension agents were used to identify specific areas of intensive agricultural practices.

#### Parameter Selection

The following general inorganic analyses were run on initial phase 1 samples collected:

1. Field: Temperature, pH, conductivity, alkalinity, and water level.
2. Dissolved Common Ions: Na, K, Ca, Mg, Cl, SO<sub>4</sub>, lab pH, calculated dissolved hardness.
3. Dissolved Metals: Fe, Mn.

4. Nutrients: NO<sub>3</sub> & NO<sub>2</sub>-N, NH<sub>3</sub>-N, TKN, total phosphorous.
5. Organic Indicators: COD, TOC, TOX, volatile organic compounds.
6. Solids: Turbidity, total dissolved solids (TDS).

Pesticides for analyses were selected area by area. The Oregon State University Extension service provided detailed information on pesticides used, and quantities used for each area. These pesticides were then compared to the leaching list prepared by EPA for a national pesticide in groundwater survey. Pesticides not included on that list were evaluated case by case, and if quantity used was significant they were usually included. The final pesticide analyte analyses list for each area (Table 1) was determined after consultation with the laboratory on analytical capabilities, cost, and analytical groupings. Usually 15 to 25 pesticides were looked for during the initial sampling. Follow-up and confirmational sampling was limited to those pesticides that were found originally.

### Results

To date, 216 wells have been sampled for pesticides and 380 wells have been sampled for nitrates. All phase 1 (vulnerable domestic wells) sampling and phase 3 (public water supplies) sampling has been completed. Phase 2 (confirmational sampling) has been conducted in all areas where pesticides were detected. The results in this paper are preliminary, a detailed analysis of the results is underway, complete results and analyses will be included in the project final report which should be available March, 1988.

#### 1. Ontario Area Result Summary

##### a. Nitrates

- 107 wells tested.
- 37 wells contained nitrate-nitrogen levels exceeding the 10 mg/l drinking water standard.
- 51 wells contained nitrate-nitrogen levels exceeding the 5 mg/l state planning level.
- Levels ranged from less than the detection limit to 49 mg/l.

##### b. Pesticides

- 81 wells tested.
- 54 wells contained DCPA (Dacthal).
- DCPA levels ranged from less than detection limit to 431 ppb.
- All DCPA concentrations detected were below the 3500 ppb draft health advisory level.
- 1 well contained 1,2-Dichloropropane (1.4 ppb).

## 2. Willamette Valley Area Result Summary

### a. Nitrates

- 136 wells tested.
- 28 wells contained nitrate-nitrogen levels greater than 10 mg/l.
- 60 wells contained nitrate-nitrogen levels greater than 5 mg/l.
- Levels ranged from less than detection limit to 35.8 mg/l.

### b. Pesticides

- 52 wells tested.
- 10 contained pesticides.
- Pesticides detected:
  - EDB (5 wells)
  - Carbofuran (3 wells) (not confirmed in resampling)
  - Fonofos (3 wells) (not confirmed in resampling)
  - Silvex (1 well) (not confirmed in resampling)
  - MCPA (1 well) (not confirmed in resampling)
  - Bromacil (1 Well)
  - Dinoseb (1 well)
- Except for EDB, all levels detected were well below levels of health concern.
- EDB concentrations detected up to 0.72 ppb.

## 3. Boardman Area Result Summary

### a. Nitrates

- 25 wells tested.
- 11 wells contained nitrate-nitrogen levels greater than 10 mg/l.
- 18 wells contained nitrate nitrogen levels greater than 5 mg/l.
- Nitrate-nitrogen levels ranged from less than detection limit to 80 mg/l.

### b. Pesticides

- 12 wells tested.
- None contained field applied pesticides.
- One well contained pentachlorophenol, a wood preservative.

4. Curry County Result Summary

a. Nitrates

- 10 wells tested.
- 1 well contained nitrate-nitrogen level greater than 10 mg/l.
- 6 wells contained nitrate-nitrogen levels greater than 5 mg/l.
- Nitrate-nitrogen levels ranged from less than detection limit to 12 mg/l.

b. Pesticides

- 10 wells tested.
- 8 wells contained 1,2-dichloropropane at levels up to 4 ppb.
- 4 wells contained Aldicarb at levels up to 10 ppb.
- One sample contained a pesticide level above a proposed MCLG.

5. Klamath Falls Area Summary

a. Nitrates

- 55 wells tested.
- 5 wells contained nitrate-nitrogen levels exceeding the 10 mg/l drinking water standard.
- 7 wells contained nitrate-nitrogen levels exceeding the 5 mg/l state planning level.
- Nitrate-nitrogen levels ranged from less than detection limit to 42 mg/l.

b. Pesticides

- 14 wells tested.
- No pesticides detected in any wells.

6. Public Water Supply Result Summary Vulnerable Areas (12)  
State-wide

a. Nitrates

- 70 wells tested.
- 10 wells contained nitrate-nitrogen exceeding the 10 mg/l drinking water standard.
- 23 wells contained nitrate-nitrogen levels exceeding the 5 mg/l state planning level.

b. Pesticides

- 63 wells tested.
- 7 wells contained DCPA (Dacthal).
- DCPA levels ranged from less than detection limit to 316 ppb.
- 1 well contained pentachlorophenol (0.120 ppb).
- 1 well contained EDB (0.072 ppb).
- Dicamba, MCPA, pentachlorophenol, Silvex, 1,3-dichloropropene were also reported in at least one additional well each, however, subsequent resampling did not confirm their presence.

Analysis of Results

The selection of the sampling areas, and the wells selected within a study area, were all based on targeting where the highest likelihood of contamination was suspected. Certain assumptions concerning vulnerability were made in selecting areas and wells to be sampled. Because of this biased sampling approach, statistical tests of the validity of those assumptions may not be possible.

For example, areas selected were areas of shallow groundwater, and within those areas shallow wells were selected. Therefore any comparison of well depth to contaminant level will only be for the narrow range of well depths selected, and will not contain an adequate number of samples from deeper wells. Thus, one can not extrapolate results obtained from analysis of data obtained in this study to the total population of wells in Oregon.

Correlation analyses were conducted for all areas on a number of potential relationships. Nitrate versus well depth was evaluated (Table 2), pesticide versus nitrates, and pesticide versus well depth (Table 3).

Strong correlations between well depth and nitrate levels were not observed. This may be a result of the biased sampling approach. The correlation coefficients obtained were for the most part negative as had been assumed.

The limited number of samples in which pesticides were detected for all areas except Ontario, precludes establishing strong correlations in those areas (Table 3). A substantial correlation was observed between DCPA and nitrates in the Ontario area (Figure 2). The identification of this correlation was most likely enhanced by the size of the data base for that area.

Total Organic Halogens (TOX) were evaluated as a potential screening tool for pesticides. Quality assurance problems (TOX values reported in blanks), and the limited number of pesticides detected in most areas reduced the scope and effectiveness of this correlation analysis. In the one area (Curry County), for which TOX and pesticide data were

TABLE 2

## NITRATE VERSUS WELL DEPTH CORRELATION COEFFICIENTS

<u>Region</u>	<u>Number of Data Sets</u>	<u>Nitrates vs Well Depth</u>	<u>Log of Nitrates vs Well Depth</u>	<u>Nitrates vs Log of Well Depth</u>
WILLAMETTE VALLEY	90	-0.274	-0.510	-0.294
BOARDMAN AREA	20	+0.020	-0.513	+0.128
ONTARIO AREA	116	-0.196	-0.222	-0.223
KLAMATH FALLS AREA	34	-0.345	-0.202	-0.337
CURRY COUNTY	13	+0.088	-0.141	+0.249

WQ137

TABLE 3

## PESTICIDE CORRELATION COEFFICIENTS

<u>Area</u>	<u>Number of Data Sets</u>	<u>Compound</u>	<u>Compound vs Nitrates</u>	<u>Log of Compound vs Nitrates</u>	<u>Compound vs Log of Nitrates</u>	<u>Compound vs Well Depth</u>	<u>Log of Compound vs Well Depth</u>	<u>Compound vs Log of Well Depth</u>
Willamette Valley	70	EDB	+0.436	+0.441	+0.228	--	--	--
Willamette Valley	20	EDB	--	--	--	-0.061	-0.001	-0.003
Ontario Area	110	DCPA	+0.826	+0.728	+0.545	--	--	--
Ontario Area	101	DCPA	--	--	--	-0.133	-0.178	-0.142
Curry Co.	27	DCP	+0.255	+0.297	+0.234	--	--	--
Curry Co.	16	Aldicarb	+0.364	+0.433	+0.382	--	--	--
Curry Co.	22	DCP	--	--	--	-0.284	-0.330	-0.218
Curry Co.	12	Aldicarb	--	--	--	+0.304	+0.136	+0.396

WQ138



# Dacthal vs Nitrate Nitrogen

ONTARIO AREA WELLS

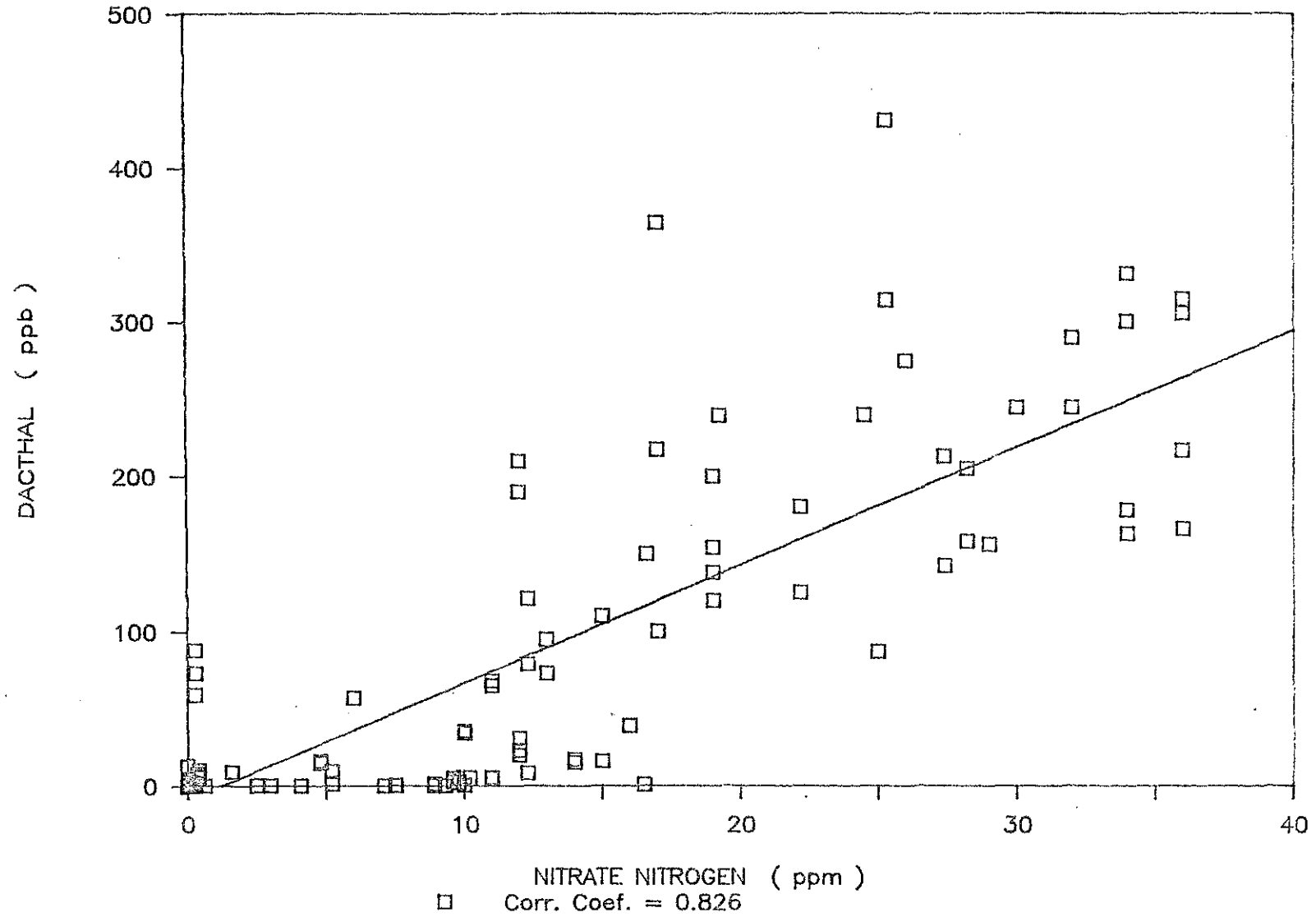


Figure 2. Dacthal (DCPA) vs Nitrate-N

available in sufficient quantity for useful analysis, the correlation between TOX and dichloropropane was quite low (correlation coefficient +0.163).

To adequately test the assumptions that were made regarding groundwater vulnerability to agricultural chemical contamination would require an unbiased sampling program. When the percentage of contaminated wells is low compared to the total population, a large number of samples will be necessary to establish correlations.

An overall evaluation of the data obtained (biased), indicates that screening procedures may be of marginal effectiveness in identifying individual or isolated contaminated wells. However, when the contamination is more widespread (Ontario area) their effectiveness may increase.

Numerous other factors are being evaluated for relationships to contamination potential, and much work needs to be done in this area. Among those are the soil properties of texture, cation exchange capacity, organic matter content, and pH; and aquifer characteristics of recharge, groundwater velocity, and mixing. Each of these factors may be of varying degrees of significance depending upon the unique characteristics of the contaminant in question.

#### Future Activities

In areas where pesticides or high nitrates have been detected considerable additional sampling will be conducted to determine the overall extent of the contamination. Follow-up confirmational sampling has been conducted where pesticides were detected.

In the Ontario area, where the most serious contamination has been detected, an inter-agency effort has been initiated to conduct a thorough groundwater study. Relative contributions of various sources of contamination are to be evaluated. Agricultural management practices will be evaluated to determine if they can be improved so improvement in groundwater quality will occur. The eventual goal will be to develop an aquifer management plan that will restore, and protect groundwater suitable for drinking, while allowing a competitive agricultural economy.

Results from the sampling will be compared to suspected vulnerability factors in the GIS system to determine if a factor or group of factors can be identified that will assist in identifying sensitive areas where additional monitoring should occur, or special groundwater protection measures should be employed.

A final report containing project findings will be prepared by March, 1988.

## Conclusions

In certain situations pesticides are entering the groundwater in Oregon as a result of field applications. Considering the wide number of pesticides used, and the number that has been looked for in this study, relatively few pesticides have been found to be contaminating groundwater. Where pesticides are being detected they are at trace levels. Out of 216 wells sampled only 5 wells contained confirmed levels of a pesticide above a health advisory level. The only area where widespread contamination has been detected as a result of normal agricultural practices is in the eastern section of the state in the Ontario area. DCPA contamination is widespread in the shallow aquifer in the Ontario area. Levels of DCPA detected are all below the draft health advisory level of 3500 ppb.

Nitrate levels exceeding the health advisory level were found in a large percentage of the wells tested. The Ontario and Boardman areas contained the highest percentages of contaminated wells. In the Willamette Valley there was one general area of high nitrates near Salem, but in the majority of the Willamette Valley areas tested, nitrates were below the health advisory level. Most wells tested in Curry County and Klamath County were below the health advisory level. Public water supply wells tested that were outside the Ontario, Boardman, and Willamette Valley areas were free of pesticides and generally contained nitrate-nitrogen levels below the drinking water standard.

From the preliminary results obtained to date, it appears that pesticide groundwater contamination problems in Oregon are limited, and involve only a few pesticides used under specific conditions. Nitrate contamination at high levels is widespread and constitutes a significant threat to the future use of groundwater as a drinking water source in a number of areas.

## Acknowledgements

This project was made possible by the extensive cooperation and contributions of a number of Federal, State, and local agencies. Among those who have contributed significantly to the project are James Witt Ph.D., Oregon State University Department of Agricultural Chemistry; Glenn Bruck, USEPA Region 10; Michael Wehr Ph.D. and Juan Muniz, Oregon Department of Agriculture Laboratory; David Leland and Winslow LaDue, Oregon Health Division; Doug Nebert and Kyler Diershaw, Oregon Office USGS; Kent Blevins, Malheur County Health Department; and most of all, Steve Fortuna, Jim Parr, and Marvin McGlothlin, Oregon Department of Environmental Quality, Division of Laboratories and Applied Research.

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### Biographical Sketch

Greg Pettit received a B.S. in Biology from Portland State University in 1973, and training in Soils Science from Oregon State University in 1980-81. Since 1977 he has been with the Oregon Department of Environmental Quality. Until 1985 he worked with the Division of Laboratories and Applied Research conducting groundwater quality assessment studies. Since 1985 he has been the groundwater program coordinator for the agency. Included in his duties are the coordination of groundwater quality investigations, and development of groundwater quality standards and protection policies.

WC1766.1

# Route Slip



Date *3-10-88*

TO:	Name	Division/Section	Initial	Date
1.	<i>Fred Hansen</i>			
2.				
3.				
4.				
5.				

<input type="checkbox"/>	as requested	<input type="checkbox"/>	investigate	<input type="checkbox"/>	per conversation
<input checked="" type="checkbox"/>	approval	<input type="checkbox"/>	justify	<input type="checkbox"/>	prepare reply
<input type="checkbox"/>	comment	<input type="checkbox"/>	necessary action	<input type="checkbox"/>	return with more detail
<input type="checkbox"/>	confer	<input type="checkbox"/>	initial and return	<input type="checkbox"/>	review and circulate
<input type="checkbox"/>	for your information	<input type="checkbox"/>	note and file	<input type="checkbox"/>	signature

*Is this sufficient to  
facilitate post luncheon  
discussion tomorrow*

*YRA*

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STATE OF OREGON

DEPARTMENT OF ENVIRONMENTAL QUALITY

INTEROFFICE MEMO

TO: Fred Hansen  
Director

DATE: March 10, 1988

FROM: Donny R. Adair   
Personnel Manager

SUBJECT: Youth Involvement/DEQ

"But today I am going to ask you to make that extra effort to give even more of yourselves, to save the life of a child, to rescue the future. Because today in Oregon, too many of our children are denied the chance to shape their destiny."

Governor Neil Goldschmidt  
February 16, 1988

In an address before state boards and commissions Governor Neil Goldschmidt amplified his desire for Oregonians "to become stewards of the child as well as we have been stewards of the land". He asked those serving on boards and commissions and the agencies they work with to devote more time, talent and resources to the development of young people.

The Department of Environmental Quality is currently reviewing what contributions to youth we can make. The division administrators have discussed the issue of youth involvement at DEQ and determined that we can, and indeed will, provide more opportunities for youth to volunteer and to work with our agency. While all the questions are not answered at this time, the on-going review encompasses the following:

1. Determine what kind of opportunities DEQ can provide.
2. Review division budgets to determine what resources are available.
3. Investigate opportunities for youth involvement on advisory committees.
4. Develop internships and paid work experiences, both after school, and summer employment.

To date, the outside resources contacted include, Portland Private Industry Council, Jefferson High School, Urban League, Oregon Council for Hispanic Advancement, Oregon State University, and CEIP Fund Inc. (formerly the Center for Environment Intern Programs). From these and/or other resources the Department of Environmental Quality has set a goal of employing 10 to 12 youth during the summer of 1988. It is likely that some students will begin work, on an after school basis, as early as April 1988. DEQ will also attempt to develop opportunities for youth to receive academic credit for

Hansen/Youth Involvement/DEQ  
March 10, 1988  
Page 2

participation on advisory committees as ex-officio members beginning fall term 1988.

Our continuing efforts to contribute to the growth and success of Oregon youth will be highlighted in future reports to the Director.

DA:p  
PP1393