

File

Permit Number: 101647  
Expiration Date: 31 May 2014  
File Number: 107220  
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NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM

WASTE DISCHARGE PERMIT  
Department of Environmental Quality  
Northwest Region Office

2020 Southwest Fourth Avenue, Portland, OR 97201-4987  
Telephone: (503) 229-5263

Issued pursuant to ORS 468B.050 and The Federal Clean Water Act

ISSUED TO:

SOURCES COVERED BY THIS PERMIT:

| Permittees:                         | Type of Discharge                  | Outfall Number | Outfall Location |
|-------------------------------------|------------------------------------|----------------|------------------|
| Port of Portland                    | Aircraft anti-icing and deicing    | 001N           | RM 8.9           |
| All commercial aircraft carriers    | materials and pavement anti-icing  | 001S           | RM 8.9           |
| operating at PDX                    | & deicing materials in storm       | 002            | RM 10.05         |
| All air cargo carriers operating at | water runoff, rinse water, shear,  | 004            | RM 10.55         |
| PDX                                 | overspray, and drip including such | 006            | RM 10.825        |
| Oregon Air National Guard (OANG)    | materials discharged from Airport  | 007            | RM 12            |
| Fixed base operators involved in    | Stormwater and Deicing             | 010            | OANG/internal    |
| deicing operations                  | Collection System.                 | CR-001         | 122°36'13",      |
| Ground Service Providers            |                                    |                | 45°36'07"        |

PLANT TYPE AND LOCATION:

Airport  
Portland OR

RECEIVING STREAM INFORMATION:

Basin: Willamette  
Sub-Basin: Lower Willamette  
Stream: Columbia Slough and Columbia River  
LLID 1226470455820/RM 8.9-12  
LLID 1240483462464/RM 110  
County: Multnomah

EPA REFERENCE NUMBER: OR 004029-1

Issued in response to Application No. 972420 received 10 October 2008 and 30 December 2008.

Gregory L. Geist, Manager  
Water Quality Source Control, Northwest Region

6/29/09  
Date

PERMITTED ACTIVITIES

Until this permit expires or is modified or revoked, the permittee is authorized to construct, install, modify or operate

a wastewater collection, treatment, control and disposal system and discharge to public waters adequately treated wastewaters only from the authorized discharge point or points established in Schedule A and only in conformance with all the requirements, limitations, and conditions set forth in the attached schedules as follows:

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Unless specifically authorized by this permit, by another NPDES or WPCF permit, or by Oregon Administrative Rule, any other direct or indirect discharge of waste is prohibited, including discharge to waters of the state or an underground injection control system.

**SCHEDULE A**  
**Waste Discharge Limitations not to be Exceeded After Permit Issuance Date**

Columbia River Outfall1. Waste Discharge Limitations not to be Exceeded

|                         |  |
|-------------------------|--|
| <u>Parameter</u>        | <u>Mass Loading, lb/day</u>  |
| BOD                     | 22 500 (Late fall/early spring - November, April, and May)<br>41 800 (Winter - December through March) |
| <u>Other Parameters</u> | <u>Limitations</u>   |
| pH                      | Shall be within the range 7.0 to 8.5 at the edge of the mixing zone                                    |

This permit does not allow the discharge of any pollutants or process wastewater from this facility other than those specified on page 1.

2. Notwithstanding the effluent limitations established by this permit, no wastes may be discharged or activities conducted that cause or contribute to a violation of water quality standards in OAR 340-041-0340 except as provided for in OAR 340-045-0080 and the following regulatory mixing zone:

The defined mixing zone shall extend 100 feet downstream of the end of the outfall pipe. A zone of initial dilution (ZID) shall extend 10 feet downstream of the end of the outfall pipe.

Columbia Slough Outfalls1. Waste Discharge Limitations not to be Exceeded

The following load allocations (Table 1) have been established by the Total Maximum Daily Load (TMDL) limits set for the Columbia Slough. The Port and OANG load allocations are combined for purposes of setting limitations for Permittees' discharge. These limitations shall apply to Permittees' discharges from stormwater runoff, rinse water, shear, overspray, and drip that contain aircraft anti-icing and deicing materials and pavement anti-icing and deicing materials.

**Table 1** BOD Waste Load Allocations (WLA)

| Flow (ft <sup>3</sup> /sec)                        | Port   | OANG | Port+OANG Combined (PDX) |
|--|--------|------|--------------------------|
| *WLA to achieve 4.0 mg/L DO criterion, BOD, lb/day |        |      |                          |
| 60   | 3534   | 437  | 3971                     |
| 100  | 7369   | 911  | 8280                     |
| 200  | 19 299 | 2385 | 21 684                   |
| 250  | 22 484 | 2779 | 25 263                   |
| WLA to achieve 5.0 mg/L DO criterion, BOD, lb/day  |        |      |                          |
| 60   | 1572   | 194  | 1766                     |
| 100  | 6176   | 763  | 6939                     |
| 200  | 15 931 | 1969 | 17 900                   |
| 250  | 18 599 | 2299 | 20 898                   |
| WLA to achieve 6.5 mg/L DO criterion, BOD, lb/day  |        |      |                          |

|     |        |      |        |
|-----|--------|------|--------|
| 60  | 904    | 112  | 1016   |
| 100 | 4361   | 539  | 4900   |
| 200 | 10 882 | 1345 | 12 227 |
| 250 | 12 775 | 1579 | 14 354 |

- \* 4.0 mg/L DO is the absolute minimum allowed
- 5.0 mg/L DO is the 7-day mean minimum
- 6.5 mg/L DO is the 30-day mean minimum

Actual allocations will be on a continuous sliding scale, with flow measurements occurring at Multnomah County Drainage District #1 ("MCDD#1") pump station. Receiving water flows from MCCD used for waste load allocations shall be based on the flow measured at MCDD#1. The allocation will be interpolated or extrapolated over the range of MCDD#1 flows based on the following waste load allocation algorithms:

### Waste Load Allocation Algorithms

#### 0 cfs ≤ Flow < 100 cfs

4.0 mg/L DO criterion

$$\text{WLA (lb/d)} = (107.75 \times \text{Flow (cfs)}) - 2496.70$$

5.0 mg/L DO criterion

$$\text{WLA (lb/d)} = (129.35 \times \text{Flow (cfs)}) - 5997.59$$

6.5 mg/L DO criterion

$$\text{WLA (lb/d)} = (97.11 \times \text{Flow (cfs)}) - 4812.62$$

#### 100 cfs ≤ Flow < 200 cfs

4.0 mg/L DO criterion

$$\text{WLA (lb/d)} = ((\text{Flow cfs} - 100) \times 134.04) + 8,280$$

5.0 mg/L DO criterion

$$\text{WLA (lb/d)} = ((\text{Flow cfs} - 100) \times 109.61) + 6,939$$

6.5 mg/L DO criterion

$$\text{WLA (lb/d)} = ((\text{Flow cfs} - 100) \times 73.27) + 4,900$$

#### 200 cfs ≤ Flow < 300 cfs

4.0 mg/L DO criterion

$$\text{WLA (lb/d)} = ((\text{Flow cfs} - 200) \times 71.57) + 21,684$$

5.0 mg/L DO criterion

$$\text{WLA (lb/d)} = ((\text{Flow cfs} - 200) \times 59.96) + 17,900$$

6.5 mg/L DO criterion

$$\text{WLA (lb/d)} = ((\text{Flow cfs} - 200) \times 42.53) + 12,227$$

The waste load allocations established by this permit are intended to assure that the TMDL and the underlying water quality standards established in OAR 340-041 will be met with an adequate margin of safety.

This permit does not allow the discharge of any pollutants or process wastewater from this facility other than those specified on page 1.

2. Notwithstanding the effluent limitations established by this permit, no wastes shall be discharged and no activities shall be conducted which will violate Water Quality Standards as adopted in OAR 340-041.

OANG's allocation shall be monitored at outfall 010.

**SCHEDULE B**  
**Minimum Monitoring and Reporting Requirements (unless otherwise approved in writing by the Department)**

1. Discharge Parameters for Columbia Slough and Columbia River Discharges - Permittees shall monitor the parameters specified below at each stormwater outfall identified below. The laboratory or instruments used by the Permittees to analyze samples shall have a quality assurance/quality control program to verify the accuracy of sample analyses. If QA/QC requirements are not met for any analysis, the results shall be included in the report (see 3. c. below), but not used in the calculations required by this Permit.
  - a. June 1 - October 31. Monitoring under this Permit shall not be required during these months.
  - b. November 1 - May 31, (Deicing Season which refers to that time during the year when Anti-icing and Deicing Materials are primarily applied or deicing system discharges occur).
    1. The following monitoring (Table 2) shall be conducted at outfalls 001N and 001S, 002, 004, 006, 007, and CR-001 when there is flow. The bioassay samples shall be taken at outfalls 006 and CR-001.

**Table 2**

| <u>Item or Parameter</u>          | <u>Minimum Frequency</u> | <u>Type of Sample</u> |
|-----------------------------------|--------------------------|-----------------------|
| Flow (MGD)                        | Hourly                   | Flow Meter            |
| BOD (mg/L) or approved equivalent | Every 6 Hours            | Grab/On-Line Meter    |
| BOD (lb/day)                      | Daily                    | Calculation           |
| Bioassay                          | Twice During Season      | Grab per Schedule D   |

2. On-line meter measurements (automated flow meters and real time BOD monitors) or grab samples shall be taken in accordance with the schedule in Table 2 at outfalls 001N and 001S, 002, 004, 006, 007, and CR-001 and the samples shall be analyzed with respect to the above parameters if there is flow.
  3. Monitoring locations for outfalls 001, 002, 004, 006, 007, and CR-001 shall be at locations identified in the Water Quality Monitoring Plan.
  4. The triggering event for bioassays shall be in accordance with the DEQ approved Water Quality Monitoring Plan.
- c. November 1 – May 31, Deicing Season - Oregon Air National Guard (OANG).
    1. During and following periods of significant application of Deicing materials (until BOD or COD is at background or non-detect), OANG shall operate a treatment system consisting of aeration in combination with bio-inoculation and detention, or other treatment to promote degradation of Deicing Materials when discharging to the PDX collection system. The following monitoring (Table 3) shall be conducted by OANG at outfall 010 when discharging to the PDX collection system.

**Table 3**

| Item or Parameter | Minimum Frequency | Type of Sample        |
|-------------------|-------------------|-----------------------|
| Flow              | Hourly            | Flow meter            |
| BOD               | Every 6 hours     | Grab or on-line meter |
| BOD (lb/day)      | Daily             | Calculation           |

2. Grab samples or on-line meter measurements shall be taken every two weeks at outfall 010 and the samples shall be analyzed for BOD<sub>5</sub> or approved equivalent including COD.
  
- d. Columbia Slough Flow - Flow in the Columbia Slough shall be monitored at MCDD#1 pump station for the purposes of determining flow-based BOD load limits. Monitoring shall consist of obtaining daily flow or pump run times with calculated flow based on pump capacity at MCDD#1 pump station from the Multnomah County Drainage District.
  
- e. Modification of Monitoring Requirements – Permittees shall have the opportunity to request a modification or reduction in monitoring frequency, monitoring techniques, and/or parameters sampled. Requests for modified or reduced monitoring must be approved in writing by DEQ and, upon approval, automatically become incorporated into this permit.
  
2. Deicing and Anti-icing Materials Usage - Each Permittee shall monitor the types and volumes of aircraft and pavement Deicing and Anti-icing Materials used by it during deicing season on a seasonal basis to provide information concerning the efficacy of the BMPs.
  - a. Aircraft Deicing and Anti-icing Materials Usage - The seasonal usage of aircraft Deicing and Anti-icing Materials will be calculated for the Deicing Season (1 November through 31 May) using inventory reconciliation, metering, or other mass/volumetric measuring methods. The following information will be collected as part of this monitoring effort: total gallons of undiluted glycol, type of material (i.e., Type I, II, or IV), and ethylene or propylene glycol base.
  
  - b. Pavement Deicing and Anti-icing Materials Usage - The seasonal usage of pavement Deicing and Anti-icing Materials on Airside will be calculated annually for the Deicing Season. The types and seasonal amount of materials used shall be reported.
  
3. Reporting Procedures
  - a. Stormwater Discharge Monitoring Results - Monitoring results for stormwater samples shall be reported on approved Discharge Monitoring Report forms.
  
  - b. Deicing Materials Usage Results - Monitoring results for Deicing Materials usage shall include a tabulation of seasonal aircraft and pavement Deicing and Anti-icing Materials usage, a narrative describing the characteristics of any major snow or ice events that occurred during the permit period (1 November through 31 May), and summarize the BOD loads discharged via the monitored outfalls.
  
  - c. Report Submittal - The monitoring reporting period is the deicing season (November 1 through May 31). Monitoring results shall be reported on approved forms. Stormwater discharge monitoring results and compliance with BOD load limits, narrative of major snow or ice events, and seasonal deicing materials usage will be submitted to the DEQ by July 30. The Permittees shall retain all records for at least five years.
  
4. Water Quality Monitoring Plan - The Permittees shall submit an addendum to the water quality monitoring plan to DEQ by October 1<sup>st</sup> of each year if there are changes to the plan. The monitoring plan will describe sampling locations, frequency and methods for monitoring. DEQ shall review addenda to the Plan and

respond to Permittees within two weeks of the date of receipt of addenda to the Plan by DEQ. Reductions in monitoring are considered permit modifications and are subject to public review per OAR 340-045-0055(2)(b) - Modification of an NPDES or WPCF Permit.

The Columbia Slough TMDL for dissolved oxygen has additional monitoring requirements which apply to the Port of Portland, and the Port will continue to comply with these requirements through appropriate cooperative agreements with other entities subject to the TMDL.

5. Management Plan - Deicing System Standard Operating Procedures The Permittees shall develop and submit the Plan to DEQ on or before October 1, 2010. On or before October 1 of each year thereafter, the Permittees shall submit to DEQ any addenda to the Plan. In addition to describing operating procedures for the Deicing System, the Plan shall provide a list of the current co-permittees and describe BMPs for reducing Deicing and Anti-icing runoff at PDX. The Plan shall describe Deicing System operational decision-making processes to minimize discharges to the Columbia Slough. DEQ shall review the Plan and respond to Permittees within thirty (30) days of the date of receipt of the Plan by DEQ.

**SCHEDULE D**  
**Special Conditions**

Management Plan – Deicing System Standard Operating Procedures. The enhanced deicing system will be fully operational by April 30, 2012. The Port will prepare a Plan by October 1, 2010 that will include standard operating procedures for the Port's deicing/anti-icing wastewater discharge system. It will be revised annually as the Port gains experience with the system. The plan will replace the previously required Annual Deicing / Anti-icing Runoff Control Plan.

Documentation of Implementation of BMPs. To control the Biochemical Oxygen Demand (BOD) loading from the discharge of Anti-icing and Deicing Materials, Best Management Practices (BMPs) shall be described in the Management Plan – Deicing System Standard Operating Procedures described in Schedule B(5) and shall, to the extent described therein, be implemented. The Plan and any amendments will be kept on file at DEQ Northwest Region Office.

DEQ expects the Management Plan to describe at least the following with the goal of optimizing operations and minimizing discharges to the Columbia Slough:

- a. How deicing stormwater from the terminal areas will be continuously monitored for BOD;
  - b. The procedure for diverting stormwater to concentrated storage tanks when BOD concentration exceeds 200 mg/L (or current set point);
  - c. The procedure for discharging to the sanitary system or to the on-site treatment facility for subsequent discharge to the Columbia River;
  - d. How deicing stormwater from other areas within the airport perimeter fence will be continuously monitored for BOD;
  - e. The procedure for diverting stormwater to dilute storage tanks when BOD concentration exceeds 20 mg/L (or current set point);
  - f. The procedure for discharging the stored water.
1. Spill Contingency Planning. An adequate contingency plan for prevention and handling of spills shall be in force at all times.
  2. Discharge of Collected Anti-icing and Deicing Materials. The Permittees, to the extent practicable, shall discharge all Anti-icing and Deicing Materials collected by the system in a manner consistent with this Permit.
  3. Human Health and Safety. Because of the nature of commercial aviation and commercial airport operations, human health and safety issues, national defense issues and/or requirements imposed by the FAA or the USAF, may compel short-term noncompliance with some of the BMPs set forth in the Runoff Control Plan. Such short-term noncompliance shall be an affirmative defense to any claim of noncompliance with the terms of this Permit.
  4. Sampling Waiver. The Permittees shall exercise due diligence in collecting and analyzing all samples as required by this Schedule. In the event the Permittees are unable to collect or analyze



any sample due to circumstances beyond the Permittee's control, a written explanation of the circumstances that prevented the collection or analysis shall be submitted to the Department in the annual report. Circumstances beyond the control of the Permittees may include abnormal climatic conditions (e.g., fewer events during the normal reporting period than typically are representative of climatic conditions); weather conditions that make the collection or analysis of samples unsafe or impracticable (e.g., storms of such intensity that sampling would present an unreasonable safety risk); or unavoidable equipment failures (provided that operator error is not a condition beyond the control of the Permittees). A waiver under this section shall be deemed in compliance with General Conditions C.1., C.3, C.5., C.6., C.7., and C.9.

5. Bypass. The Bypass provisions of this Permit (Section B of the General Conditions) do not apply to these Permittees for the permitted stormwater, rinse water, shear, overspray, and drip discharges from and through the PDX stormwater conveyance system.
6. Upset Definition. Notwithstanding Section B of the General Conditions and in addition to the definition of "Upset" at General Conditions, Section B.4.a. and B.4.c.3., "Upset" shall also mean an exceptional incident in which there is unintentional and temporary noncompliance with the Waste Load Allocations or BMPs or discharge limits to the Columbia River because of factors beyond the reasonable control of the Permittees. An Upset does not include noncompliance to the extent caused solely by cost or airline scheduling. Factors beyond the reasonable control of the Permittees which may affect Permittees' ability to comply with Waste Load Allocations or BMPs include, but are not limited to: Extreme weather conditions resulting in exceeding the operating capacity of the deicing collection system, aircraft accidents safety or security requirements, natural disasters, and power outage. An Upset constitutes an affirmative defense to an action brought for noncompliance with such compliance schedule term or BMP if the requirements of General Condition, Section B.4.a. and B.4.c.3. are met. Notwithstanding General Condition, Section B.4.a and B.4.c.3., the Permittees shall have 72 hours to submit notice of any Upset.
7. Treatment of Single Operational Event. Notwithstanding General Condition, Section B.4., for purposes of this Permit, a "Single Operational Event" which leads to simultaneous violations of more than one BMP or compliance schedule term shall be treated as a single violation. A "Single Operational Event" is an exceptional incident which causes simultaneous, unintentional, unknowing (not the result of a knowing act or omission), temporary noncompliance with more than one BMP or compliance schedule term.
8. Overflows. Notwithstanding Section B of the General Conditions, the Overflow provisions of this Permit do not apply to these Permittees for the permitted stormwater and wash water discharges from and through the PDX stormwater conveyance system.
9. Bioassays.
  - a. The permittees shall conduct chronic whole effluent toxicity bioassay tests of outfall 006 and CR001 in accordance with the frequency specified in Schedule B with Ceriodaphnia dubia (water flea) and Pimphales promelas (fathead minnow).
  - b. Bioassay tests may be dual end-point tests in which both acute and chronic end-points can be determined from the results of a single chronic test (the acute end-point shall be based upon a 48-hour time period).

- c. Bioassays shall be conducted in accordance with Short-Term Methods for Estimating the Chronic Toxicity of Effluent and Receiving Waters to Freshwater Organisms, Second Edition, EPA/600/4-91/003, Methods for Measuring the Acute Toxicity of Effluents to Freshwater and Marine Organisms, EPA/600/4-90/027F, and DEQ's Whole Effluent Toxicity Guidance dated January, 1993 or succeeding versions of these documents. Quality assurance criteria, statistical analyses and data reporting for the bioassays shall be in accordance with the EPA document and Department requirements for chronic testing referenced above.
- d. The permittee shall make available to the Department, on request, the written standard operating procedures they, or the laboratory performing the bioassays, are using for all toxicity tests required by the Department.
- e. An acute bioassay test shall be considered to show toxicity if there is a statistically significant difference in survival between the control and dilutions greater than that which is found to occur at the edge of the zone of immediate dilution (ZID) at outfall CR001.
- f. A chronic bioassay test shall be considered to show toxicity if a statistically significant difference in survival, growth, or reproduction occurs at dilutions greater than that which is known to occur at the edge of the mixing zone at outfall CR001.
- g. If toxicity is shown, as defined in sections e. and f. of this permit condition, another toxicity test using the same species and Department approved methodology shall be conducted during the next deicing discharge that follows the two week period after receiving toxicity results, unless otherwise approved by the Department. If the second test also indicates toxicity, the permittees shall follow the procedure described in section h. of this permit condition.
- h. If two consecutive bioassay test results indicate acute and/or chronic toxicity, as defined in sections e. or f. of this permit condition, the permittees shall evaluate the source of the toxicity and factor the toxicity results into the mixing zone study which was updated and submitted to the Department in connection with renewal of this permit. The Port will prepare a work plan for evaluating the source of the observed toxicity and methods for toxicity control. The plan will be submitted to the Department for approval. Upon approval by the Department, the permittees shall implement the plan until compliance has been achieved. Evaluations shall be completed and plans submitted to the Department within 6 months unless otherwise approved in writing by the Department.
- i. If bioassay testing indicates acute and/or chronic toxicity, the Department may reopen and modify this permit to include new limitations and/or conditions as determined by the Department to be appropriate, and in accordance with procedures outlined in Oregon Administrative Rules, Chapter 340, Division 45.
- j. A WET test is anomalous if it shows a statistically significant difference in response between the control and the acute criteria effluent concentration (ACEC) or chronic criteria effluent concentration (CCEC), but no statistically significant difference in response at one or more higher effluent concentrations. The lack of statistical significance must be associated with a lower toxic effect at the higher effluent concentration.
- k. A WET test is anomalous if there is a statistically significant difference in response between the control and the ACEC or CCEC and the slope of the line fitted to the concentration-

response plot of all test concentrations is zero, unless the zero slope is due to a complete effect (no survival, no fertilization, no normal development, etc.) at every effluent concentration.

- l. A WET test is anomalous if there is a statistically significant difference in response between the control and the ACEC or CCEC which together with other nearby concentrations of effluent have a zero slope and appear to be nontoxic (performance is typical of healthy test organisms). A test conducted for effluent characterization will be considered acceptable if the slope is zero over lower concentrations and then shows a distinct toxic threshold at a higher concentration.
- m. A WET test is anomalous if the overall slope of the line fitted to the concentration-response plot is opposite of normal expectations and there is a statistically significant difference in response at the ACEC or CCEC. A test might be considered acceptable if the slope is opposite over only part of the concentration series.
- n. A WET test is anomalous if the standard deviation for proportion alive equals or exceeds 0.3 in any test concentrations unless the partial mortality fits a good concentration-response relationship. A WET test is anomalous if mortalities occur in any test concentration in excess of the control performance criterion for survival when the concentration-response relationship indicates that the effluent concentration is nontoxic (sporadic mortalities).
- o. To reduce the opportunity for WET limit violations due to statistically significant differences in response that are type I errors, permit requirements will lower the alpha level for hypothesis testing when differences in test organism response are small. To prevent excessive type I errors and have more fair and enforceable test results, we choose  $\alpha = 0.01$  for small differences in response. If the difference in survival between the control and the ACEC in an acute test is less than 10 percent, the level of significance will be lowered from 0.05 to 0.01. If the difference in test organism response between the control and the CCEC in a chronic test is less than 20 percent, the level of significance will be lowered from 0.05 to 0.01.
- p. Bioassay results shall be reported to the Department 30 days following receipt of the final test report.
- q. If, after at least five (5) consecutive biomonitoring events in more than one deicing season no toxicity is observed, no further bioassays will be required. If either chronic or acute toxicity is observed, then that type of monitoring must be continued until there are five consecutive events in which no toxicity is observed. When this condition is met, no further bioassays of that type will be required.

**SCHEDULE F**  
**NPDES GENERAL CONDITIONS**

**SECTION A. STANDARD CONDITIONS**

1. Duty to Comply with Permit

The permittee must comply with all conditions of this permit. Failure to comply with any permit condition is a violation of Oregon Revised Statutes (ORS) 468B.025 and the federal Clean Water Act and is grounds for an enforcement action. Failure to comply is also grounds for the Department to terminate, modify and reissue, revoke, or deny renewal of a permit.

2. Penalties for Water Pollution and Permit Condition Violations

The permit is enforceable by DEQ or EPA, and in some circumstances also by third-parties under the citizen suit provisions 33 USC §1365. DEQ enforcement is generally based on provisions of state statutes and EQC rules, and EPA enforcement is generally based on provisions of federal statutes and EPA regulations.

ORS 468.140 allows the Department to impose civil penalties up to \$10,000 per day for violation of a term, condition, or requirement of a permit. The federal Clean Water Act provides for civil penalties not to exceed \$32,500 and administrative penalties not to exceed \$11,000 per day for each violation of any condition or limitation of this permit.

Under ORS 468.943, unlawful water pollution, if committed by a person with criminal negligence, is punishable by a fine of up to \$25,000, imprisonment for not more than one year, or both. Each day on which a violation occurs or continues is a separately punishable offense. The federal Clean Water Act provides for criminal penalties of not more than \$50,000 per day of violation, or imprisonment of not more than 2 years, or both for second or subsequent negligent violations of this permit.

Under ORS 468.946, a person who knowingly discharges, places, or causes to be placed any waste into the waters of the state or in a location where the waste is likely to escape into the waters of the state is subject to a Class B felony punishable by a fine not to exceed \$200,000 and up to 10 years in prison. The federal Clean Water Act provides for criminal penalties of \$5,000 to \$50,000 per day of violation, or imprisonment of not more than 3 years, or both for knowing violations of the permit. In the case of a second or subsequent conviction for knowing violation, a person shall be subject to criminal penalties of not more than \$100,000 per day of violation, or imprisonment of not more than 6 years, or both.

3. Duty to Mitigate

The permittee must take all reasonable steps to minimize or prevent any discharge or sludge use or disposal in violation of this permit that has a reasonable likelihood of adversely affecting human health or the environment. In addition, upon request of the Department, the permittee must correct any adverse impact on the environment or human health resulting from noncompliance with this permit, including such accelerated or additional monitoring as necessary to determine the nature and impact of the noncomplying discharge.

4. 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 have the permit renewed. The application must be submitted at least 180 days before the expiration date of this permit.

The Department may grant permission to submit an application less than 180 days in advance but no later than the permit expiration date.

5. Permit Actions

This permit may be modified, revoked and reissued, or terminated for cause including, but not limited to, the following:

- a. Violation of any term, condition, or requirement of this permit, a rule, or a statute
- b. Obtaining this permit by misrepresentation or failure to disclose fully all material facts
- c. A change in any condition that requires either a temporary or permanent reduction or elimination of the authorized discharge
- d. The permittee is identified as a Designated Management Agency or allocated a wasteload under a Total Maximum Daily Load (TMDL)
- e. New information or regulations
- f. Modification of compliance schedules

- g. Requirements of permit reopener conditions
- h. Correction of technical mistakes made in determining permit conditions
- i. Determination that the permitted activity endangers human health or the environment
- j. Other causes as specified in 40 CFR 122.62, 122.64, and 124.5

The filing of a request by the permittee for a permit modification, revocation or reissuance, termination, or a notification of planned changes or anticipated noncompliance, does not stay any permit condition.

6. Toxic Pollutants

The permittee must comply with any applicable effluent standards or prohibitions established under Oregon Administrative Rules (OAR) 340-041-0033 and 307(a) of the federal Clean Water Act for toxic pollutants and with standards for sewage sludge use or disposal established under Section 405(d) of the Clean Water Act within the time provided in the regulations that establish those standards or prohibitions, even if the permit has not yet been modified to incorporate the requirement.

7. Property Rights and Other Legal Requirements

The issuance of this permit does not convey any property rights of any sort, or any exclusive privilege, or authorize any injury to persons or property or invasion of any other private rights, or any infringement of federal, tribal, state, or local laws or regulations.

8. Permit References

Except for effluent standards or prohibitions established under Section 307(a) of the Clean Water Act and OAR 340-041-0033 for toxic pollutants and standards for sewage sludge use or disposal established under Section 405(d) of the Clean Water Act, all rules and statutes referred to in this permit are those in effect on the date this permit is issued.

9. Permit Fees

The permittee must pay the fees required by Oregon Administrative Rules.

## SECTION B. OPERATION AND MAINTENANCE OF POLLUTION CONTROLS

1. Proper Operation and Maintenance

The permittee must at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) that are installed or used by the permittee to achieve compliance with the conditions of this permit. Proper operation and maintenance also includes adequate laboratory controls and appropriate quality assurance procedures. This provision requires the operation of back-up or auxiliary facilities or similar systems that are installed by a permittee only when the operation is necessary to achieve compliance with the conditions of the permit.

2. Need to Halt or Reduce Activity Not a Defense

For industrial or commercial facilities, upon reduction, loss, or failure of the treatment facility, the permittee must, to the extent necessary to maintain compliance with its permit, control production or all discharges or both until the facility is restored or an alternative method of treatment is provided. This requirement applies, for example, when the primary source of power of the treatment facility fails or is reduced or lost. It is not a defense for a 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.

3. Bypass of Treatment Facilities

a. Definitions

- (1) "Bypass" means intentional diversion of waste streams from any portion of the treatment facility. The permittee may allow any bypass to occur which does not cause effluent limitations to be exceeded, provided the diversion is to allow essential maintenance to assure efficient operation. These bypasses are not subject to the provisions of paragraphs b. and c. of this section.
- (2) "Severe property damage" means substantial physical damage to property, damage to the treatment facilities or treatment processes that causes them to become inoperable, or substantial and permanent loss of natural resources that can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production.

b. Prohibition of bypass.

- (1) Bypass is prohibited and the Department may take enforcement action against a permittee for bypass unless:

- (a) Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage;
  - (b) There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate backup equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass that occurred during normal periods of equipment downtime or preventative maintenance; and
  - (c) The permittee submitted notices and requests as required under General Condition B.3.c.
- (2) The Department may approve an anticipated bypass, after considering its adverse effects and any alternatives to bypassing, when the Department determines that it will meet the three conditions listed above in General Condition B.3.b.(1).
- c. Notice and request for bypass.
- (1) Anticipated bypass. If the permittee knows in advance of the need for a bypass, a written notice must be submitted to the Department at least ten days before the date of the bypass.
  - (2) Unanticipated bypass. The permittee must submit notice of an unanticipated bypass as required in General Condition D.5.

4. Upset

- a. Definition. "Upset" means an exceptional incident in which there is unintentional and temporary noncompliance with technology based permit effluent limitations because of factors beyond the reasonable control of the permittee. An upset does not include noncompliance to the extent caused by operation error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventative maintenance, or careless or improper operation.
- b. Effect of an upset. An upset constitutes an affirmative defense to an action brought for noncompliance with such technology-based permit effluent limitations if the requirements of General Condition B.4.c are met. No determination made during administrative review of claims that noncompliance was caused by upset, and before an action for noncompliance, is final administrative action subject to judicial review.
- c. Conditions necessary for a demonstration of upset. A permittee who wishes to establish the affirmative defense of upset must demonstrate, through properly signed, contemporaneous operating logs, or other relevant evidence that:
  - (1) An upset occurred and that the permittee can identify the cause(s) of the upset;
  - (2) The permitted facility was at the time being properly operated;
  - (3) The permittee submitted notice of the upset as required in General Condition D.5, hereof (24-hour notice); and
  - (4) The permittee complied with any remedial measures required under General Condition A.3 hereof.
- d. Burden of proof. In any enforcement proceeding the permittee seeking to establish the occurrence of an upset has the burden of proof.

5. Treatment of Single Operational Upset

For purposes of this permit, A Single Operational Upset that leads to simultaneous violations of more than one pollutant parameter will be treated as a single violation. A single operational upset is an exceptional incident that causes simultaneous, unintentional, unknowing (not the result of a knowing act or omission), temporary noncompliance with more than one Clean Water Act effluent discharge pollutant parameter. A single operational upset does not include Clean Water Act violations involving discharge without a NPDES permit or noncompliance to the extent caused by improperly designed or inadequate treatment facilities. Each day of a single operational upset is a violation.

6. Public Notification of Effluent Violation or Overflow

If effluent limitations specified in this permit are exceeded or an overflow occurs that threatens public health, the permittee must take such steps as are necessary to alert the public, health agencies and other affected entities (e.g., public water systems) about the extent and nature of the discharge in accordance with the notification procedures developed in accordance with General Condition B.8. Such steps may include, but are not limited to, posting of the river at access points and other places, news releases, and paid announcements on radio and television.

7. Emergency Response and Public Notification Plan

The permittee must develop and implement an emergency response and public notification plan that identifies measures to protect public health from bypasses or upsets that may endanger public health. At a minimum the plan must include mechanisms to:

- a. Ensure that the permittee is aware (to the greatest extent possible) of such events;
- b. Ensure notification of appropriate personnel and ensure that they are immediately dispatched for investigation and response;

- c. Ensure immediate notification to the public, health agencies, and other affected public entities (including public water systems). The response plan must identify the public health and other officials who will receive immediate notification;
  - d. Ensure that appropriate personnel are aware of and follow the plan and are appropriately trained; and
  - e. Provide emergency operations; and
  - f. Ensure that DEQ is notified of the public notification steps taken.
8. Removed Substances  
Solids, sludges, filter backwash, or other pollutants removed in the course of treatment or control of wastewaters must be disposed of in such a manner as to prevent any pollutant from such materials from entering waters of the state, causing nuisance conditions, or creating a public health hazard.

### SECTION C. MONITORING AND RECORDS

1. Representative Sampling  
Sampling and measurements taken as required herein must be representative of the volume and nature of the monitored discharge. All samples must be taken at the monitoring points specified in this permit, and shall be taken, unless otherwise specified, before the effluent joins or is diluted by any other waste stream, body of water, or substance. Monitoring points may not be changed without notification to and the approval from the Department.
2. Flow Measurements  
Appropriate flow measurement devices and methods consistent with accepted scientific practices must be selected and used to ensure the accuracy and reliability of measurements of the volume of monitored discharges. The devices must be installed, calibrated and maintained to insure that the accuracy of the measurements is consistent with the accepted capability of that type of device. Devices selected must be capable of measuring flows with a maximum deviation of less than  $\pm 10$  percent from true discharge rates throughout the range of expected discharge volumes.
3. Monitoring Procedures  
Monitoring must be conducted according to test procedures approved under 40 CFR part 136, unless other test procedures have been specified in this permit.
4. Penalties of Tampering  
The Clean Water Act provides that any person who falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required to be maintained under this permit may, upon conviction, be punished by a fine of not more than \$10,000 per violation, imprisonment for not more than two years, or both. If a conviction of a person is for a violation committed after a first conviction of such person, punishment is a fine not more than \$20,000 per day of violation, or by imprisonment of not more than four years, or both.
5. Reporting of Monitoring Results Monitoring results must be summarized each month on a Discharge Monitoring Report form approved by the Department. The reports must be submitted monthly and are to be mailed, delivered or otherwise transmitted by the 15th day of the following month unless specifically approved otherwise in Schedule B of this permit.
6. Additional Monitoring by the Permittee  
If the permittee monitors any pollutant more frequently than required by this permit, using test procedures approved under 40 part CFR 136 or as specified in this permit, the results of this monitoring must be included in the calculation and reporting of the data submitted in the Discharge Monitoring Report. Such increased frequency must also be indicated. For a pollutant parameter that may be sampled more than once per day (e.g., Total Chlorine Residual), only the average daily value must be recorded unless otherwise specified in this permit.
7. Averaging of Measurements  
Calculations for all limitations that require averaging of measurements must utilize an arithmetic mean, except for bacteria which shall be averaged as specified in this permit.
8. Retention of Records  
Records of monitoring information required by this permit related to the permittee's sewage sludge use and disposal activities shall be retained for a period of at least five years (or longer as required by 40 CFR part 503). Records of all monitoring information including: all calibration and maintenance records, all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this permit and records of all data used to complete the application for this permit shall be retained for a period of at least 3 years from the date of the sample, measurement, report, or application. This period may be extended by request of the Department at any time.

9. Records Contents

Records of monitoring information must include:

- a. The date, exact place, time, and methods of sampling or measurements;
- b. The individual(s) who performed the sampling or measurements;
- c. The date(s) analyses were performed;
- d. The individual(s) who performed the analyses;
- e. The analytical techniques or methods used; and
- f. The results of such analyses.

10. Inspection and Entry

The permittee must allow the Department or an authorized representative upon the presentation of credentials, to:

- a. Enter upon the permittee's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this permit;
- b. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;
- c. Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this permit, and
- d. Sample or monitor at reasonable times, for the purpose of assuring permit compliance or as otherwise authorized by state law, any substances or parameters at any location.

11. Confidentiality of Information

Any information relating to this permit that is submitted to or obtained by DEQ is available to the public unless classified as confidential by the Director of DEQ under ORS 468.095. The Permittee may request that information be classified as confidential if it is a trade secret as defined by that statute. The name and address of the permittee, permit applications, permits, effluent data, and information required by NPDES application forms under 40 CFR 122.21 will not be classified as confidential. 40 CFR 122.7(b).

#### SECTION D. REPORTING REQUIREMENTS

1. Planned Changes

The permittee must comply with OAR chapter 340, division 52, "Review of Plans and Specifications" and 40 CFR Section 122.41(l) (1). Except where exempted under OAR chapter 340, division 52, no construction, installation, or modification involving disposal systems, treatment works, sewerage systems, or common sewers may be commenced until the plans and specifications are submitted to and approved by the Department. The permittee must give notice to the Department as soon as possible of any planned physical alternations or additions to the permitted facility.

2. Anticipated Noncompliance

The permittee must give advance notice to the Department of any planned changes in the permitted facility or activity that may result in noncompliance with permit requirements.

3. Transfers

This permit may be transferred to a new permittee provided the transferee acquires a property interest in the permitted activity and agrees in writing to fully comply with all the terms and conditions of the permit and the rules of the Commission. No permit may be transferred to a third party without prior written approval from the Department. The Department may require modification or revocation and reissuance of the permit to change the name of the permittee and incorporate such other requirements as may be necessary under 40 CFR Section 122.61. The permittee must notify the Department when a transfer of property interest takes place.

4. Compliance Schedule

Reports of compliance or noncompliance with, or any progress reports on interim and final requirements contained in any compliance schedule of this permit must be submitted no later than 14 days following each schedule date. Any reports of noncompliance must include the cause of noncompliance, any remedial actions taken, and the probability of meeting the next scheduled requirements.

5. Twenty-Four Hour Reporting

The permittee must report any noncompliance that may endanger health or the environment. Any information must be provided orally (by telephone) within 24 hours from the time the permittee becomes aware of the circumstances, unless a shorter time is specified in the permit. During normal business hours, the Department's Regional office must be called. Outside of normal business hours, the Department must be contacted at 1-800-452-0311 (Oregon Emergency Response System).



The following must be included as information that must be reported within 24 hours under this paragraph:

- a. Any unanticipated bypass that exceeds any effluent limitation in this permit;
- b. Any upset that exceeds any effluent limitation in this permit;
- c. Violation of maximum daily discharge limitation for any of the pollutants listed by the Department in this permit; and
- d. Any noncompliance that may endanger human health or the environment.

A written submission must also be provided within 5 days of the time the permittee becomes aware of the circumstances. Pursuant to ORS 468.959 (3) (a), if the permittee is establishing an affirmative defense of upset or bypass to any offense under ORS 468.922 to 468.946, delivered written notice must be made to the Department or other agency with regulatory jurisdiction within 4 (four) calendar days of the time the permittee becomes aware of the circumstances. The written submission must contain:

- e. A description of noncompliance and its cause;
- f. The period of noncompliance, including exact dates and times;
- g. The estimated time noncompliance is expected to continue if it has not been corrected;
- h. Steps taken or planned to reduce, eliminate and prevent reoccurrence of the noncompliance; and
- i. Public notification steps taken, pursuant to General Condition B.

The Department may waive the written report on a case-by-case basis if the oral report has been received within 24 hours.

6. Other Noncompliance

The permittee must report all instances of noncompliance not reported under General Condition D.4 or D.5, at the time monitoring reports are submitted. The reports must contain:

- a. A description of the noncompliance and its cause;
- b. The period of noncompliance, including exact dates and times;
- c. The estimated time noncompliance is expected to continue if it has not been corrected; and
- d. Steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance.

7. Duty to Provide Information

The permittee must furnish to the Department within a reasonable time any information that the Department may request to determine compliance with this permit. The permittee must also furnish to the Department, upon request, copies of records required to be kept by this permit.

Other Information: When the permittee becomes aware that it has failed to submit any relevant facts or has submitted incorrect information in a permit application or any report to the Department, it must promptly submit such facts or information.

8. Signatory Requirements

All applications, reports or information submitted to the Department must be signed and certified in accordance with 40 CFR Section 122.22.

9. Falsification of Information

Under ORS 468.953, any person who knowingly makes any false statement, representation, or certification in any record or other document submitted or required to be maintained under this permit, including monitoring reports or reports of compliance or noncompliance, is subject to a Class C felony punishable by a fine not to exceed \$100,000 per violation and up to 5 years in prison. Additionally, according to 40 CFR 122.41(k)(2), any person who knowingly makes any false statement, representation, or certification in any record or other document submitted or required to be maintained under this permit including monitoring reports or reports of compliance or non-compliance shall, upon conviction, be punished by a federal civil penalty not to exceed \$10,000 per violation, or by imprisonment for not more than 6 months per violation, or by both.

10. Changes to Discharges of Toxic Pollutant

The permittee must notify the Department as soon as it knows or has reason to believe the following:

- a. That any activity has occurred or will occur that would result in the discharge, on a routine or frequent basis, of any toxic pollutant that is not limited in the permit, if that discharge will exceed the highest of the following "notification levels:
  - (1) One hundred micrograms per liter (100 µg/l);

- (2) Two hundred micrograms per liter (200 µg/l) for acrolein and acrylonitrile; five hundred micrograms per liter (500 µg/l) for 2,4-dinitrophenol and for 2-methyl-4,6-dinitrophenol; and one milligram per liter (1 mg/L) for antimony;
  - (3) Five (5) times the maximum concentration value reported for that pollutant in the permit application in accordance with 40 CFR Section 122.21(g)(7); or
  - (4) The level established by the Department in accordance with 40 CFR Section 122.44(f).
- b. That any activity has occurred or will occur that would result in any discharge, on a non-routine or infrequent basis, of a toxic pollutant that is not limited in the permit, if that discharge will exceed the highest of the following "notification levels":
- (1) Five hundred micrograms per liter (500 µg/l);
  - (2) One milligram per liter (1 mg/L) for antimony;
  - (3) Ten (10) times the maximum concentration value reported for that pollutant in the permit application in accordance with 40 CFR Section 122.21(g)(7); or
  - (4) The level established by the Department in accordance with 40 CFR Section 122.44(f).

#### **SECTION E. DEFINITIONS**

1. *BOD<sub>5</sub>* means five-day biochemical oxygen demand.
2. *TSS* means total suspended solids.
3. "*Bacteria*" includes but is not limited to fecal coliform bacteria, total coliform bacteria, and *E. coli* bacteria.
4. *FC* means fecal coliform bacteria.
5. *Total residual chlorine* means combined chlorine forms plus free residual chlorine
6. *Technology based permit effluent limitations* means technology-based treatment requirements as defined in 40 CFR Section 125.3, and concentration and mass load effluent limitations that are based on minimum design criteria specified in OAR Chapter 340, Division 41.
7. *mg/L* means milligrams per liter.
8. *kg* means kilograms.
9. *m<sup>3</sup>/d* means cubic meters per day.
10. *MGD* means million gallons per day.
11. *24-hour Composite sample* means a combination of at least six discrete sample aliquots of at least 100 milliliters, collected at periodic intervals from the same location, during the operating hours of the facility over a 24 hour period. Four (rather than six) aliquots should be collected for volatile organics analyses. The composite must be flow or time proportional, whichever is more appropriate. The sample aliquots must be collected and stored in accordance with procedures prescribed in the most recent edition of *Standard Methods for the Examination of Water and Wastewater*.
12. *Grab sample* means an individual discrete sample collected over a period of time not to exceed 15 minutes.
13. *Quarter* means January through March, April through June, July through September, or October through December.
14. *Month* means calendar month.
15. *Week* means a calendar week of Sunday through Saturday.