



State of Oregon  
Department of  
Environmental  
Quality

# General Permit NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM WASTE DISCHARGE PERMIT

Oregon Department of Environmental Quality  
700 NE Multnomah Street, Suite 600  
Portland, OR 97232  
Telephone: 503-229-5696

Issued pursuant to ORS 468B.050 and the federal Clean Water Act

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## REGISTERED TO:

This National Pollutant Discharge Elimination System general permit provides coverage for once-through non-contact cooling water, recycled non-contact cooling water, defrost water, heat pump transfer water and cooling tower blowdown. Permit coverage is also provided for a discharge of cooling water and sump pump type wastewater from a hydroelectric facility.

Jennifer Wigal

Jennifer Wigal (Apr 15, 2024 11:07 PDT)

Jennifer Wigal, Administrator  
Water Quality

April 15, 2024

Issuance Date

May 31, 2024

Effective Date

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## PERMITTED ACTIVITIES

Until this permit expires or is modified or revoked, the registrant is authorized to discharge wastewater to waters of the state only in conformance with the requirements, limits, and conditions set forth in this permit.

Unless specifically authorized by this permit, by another NPDES or Water Pollution Control Facility permit, or by Oregon statute or administrative rule, any other direct or indirect discharge of pollutants to waters of the state is prohibited.

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## COVERAGE AND ELIGIBILITY

### 1. Types of Discharges Authorized by this Permit

This general permit provides coverage for the following types of discharges:

- a. This permit is for a discharge of non-contact cooling water. A discharge may occur as once-through non-contact cooling water, recycled non-contact cooling water, defrost water, heat pump transfer water and cooling tower blowdown.
- b. This permit is for a discharge of various cooling water and sump pump type discharges from a hydroelectric facility.

### 2. Discharges Not Authorized by This Permit

Discharges and facility operations not authorized for general permit coverage are set below. Any facility not authorized under general permit coverage may seek permit coverage under an individual permit.

- a. Pursuant to OAR 340-041-0004(8), a discharge to waters designated currently or in the future as Outstanding Resource Waters is not eligible for permit coverage.
- b. A discharge to an ocean or bay is not eligible for permit coverage.
- c. A discharge from a hydroelectric facility located in two or more states is not eligible for permit coverage.
- d. New discharges to waters as listed in Table 1 below are not eligible for permit coverage.

**Table 1: TMDLs – Permit Coverage Not Available**

TMDL Document	Date of EPA Approval	Basin, Subbasin, and/or Watershed
Willamette Basin TMDL, Chapter 5	DEQ, 2006	Lower Willamette Subbasin (Columbia Slough and Fairview Creek watersheds only)
Bear Creek Watershed Total Maximum Daily Load and Water Quality Management Plan	DEQ, 2007	Rogue: Bear Creek Watershed
Molalla-Pudding Subbasin TMDL and WQMP	DEQ, 2008	Willamette: Molalla-Pudding Subbasin
Middle Columbia-Hood (Miles Creeks) Subbasin TMDL and WQMP	DEQ, 2008	Columbia-Hood: Middle Columbia-Hood Subbasins (Miles Creeks)
Western Hood Subbasin Temperature Total Maximum Daily Load, Revision to the 2001 Western Hood Subbasin TMDL	DEQ, 2018	Columbia-Hood: Western Hood Subbasin
Willow Creek Subbasin Temperature, pH, and Bacteria Total Maximum Daily Loads and Water Quality Management Plan	DEQ, 2007	Umatilla: Willow Creek

TMDL Document	Date of EPA Approval	Basin, Subbasin, and/or Watershed
Walla Walla Subbasin Stream Temperature Total Maximum Daily Load and Water Quality Management Plan	DEQ, 2005	Umatilla: Walla Walla Subbasin
Little River Watershed TMDL	DEQ, 2001	Umpqua: Little River Watershed
Malheur River Basin TMDL and WQMP	DEQ, 2010	Malheur Basin
Columbia and Lower Snake Rivers Temperature TMDL	EPA, 2020	Columbia and Lower Snake Rivers

- e. A mainstem Willamette River small source bubble allocation is not available for a new discharge, except for a limited number per stream segment as listed in Table 2 below.

**Table 2: Willamette Mainstem Small Source Bubble Allocations**

Mainstem Segment	Total Number of 100-J Allowable Registrants (see note)
Lower Willamette (River Mile 0 – 50, Mouth Willamette River - Yamhill River)	13
Middle Willamette (River Mile 50 – 108, Yamhill River - Santiam River)	3
Upper Willamette (River Mile 108 – 186, Santiam River - Confluence of The Coast Fork/Middle Fork Willamette)	6
Note: For discharges no greater than 0.5 MGD.	

- f. Any facility that uses a cooling water intake structure is not eligible for permit coverage if one or more of the following circumstances apply:
  - i. Any industrial facility that withdraws surface water for cooling without an inspection letter from Oregon Department of Fish and Wildlife. This includes any industrial facility that uses surface water for cooling water that is obtained through contract or other arrangement with an independent supplier.
  - ii. Any hydroelectric facility that does not have a Federal Energy Regulatory Commission license or Biological Opinion.
  - iii. Any hydroelectric facility that has a FERC license or BO but that DEQ determines has a cooling water intake structure that does not reflect the Best Technology Available for minimizing adverse environmental impact, based on consideration of one or more of the four factors under EPA’s July 2022 *Revised Framework for Considering Existing Hydroelectric Facility Technologies in Establishing Case-by-Case, Best Professional Judgment Clean Water Act § 316(b) NPDES Permit Conditions* as summarized below.

- (A) Volume of cooling water used relative to other power generation facilities and relative to total water use at the facility
  - (B) Cooling water withdrawn relative to waterbody flow
  - (C) Location of the intake structure
  - (D) Technologies at the facility
- g. Any facility subject to steam electric power generating facilities effluent limit guidelines included in 40 CFR Part 423 is not eligible for permit coverage.
- h. This permit does not provide coverage for a new discharge or increased discharge to a natural lake. The term natural lake is consistent with its use in OAR 340-041-0028(6) for temperature criteria.

### **3. Registration for Permit Coverage**

- a. Within 60 days after the effective date of this permit, all existing operations shall notify DEQ in writing of its intent to apply for permit coverage. This notification must be on DEQ approved forms and will include application fees if those fees have not been previously paid.
- b. Within at least one year prior to filing an application for permit coverage, an existing operation must notify DEQ of its intent to provide spawning bed documentation, cooling water intake structure documentation, a land application plan, ambient natural lake temperature or a downstream effects analysis and the method of assessment proposed as contained in Schedule D1 and D2.
- c. An application for registration must include DEQ-approved forms, a completed Land Use Compatibility Statement form and applicable fees. The application must be submitted to DEQ as follows:
- i. A registrant with administratively extended permit coverage under the 1996 100-J general permit must submit an application to continue permit coverage no later than three years after the effective date of this permit. The 1996 100-J permit coverage will continue until DEQ takes final action on the application for registration submitted after the effective date of this permit. These existing operations must follow the terms and conditions of the 1996 100-J permit until DEQ takes final action on the application for registration.
  - ii. Existing operations that submitted an application for 1996 100-J permit coverage between July 31, 2001 and Jan. 1, 2023, or an existing operation without individual permit coverage that notifies DEQ in writing of an intent to apply for permit coverage within 60 days after the effective date of this permit must submit an application no later than three years after the effective date of this permit. These existing operations must follow the terms and conditions of the 1996 100-J permit until DEQ takes final action on the application for registration.
  - iii. New dischargers must submit an application at least 180 days prior to discharge.
  - iv. DEQ will be transitioning its permit application process to an electronic system. When DEQ directs, the applicant must submit the general permit application and application related documents electronically on DEQ-approved web-based forms including pre-approved formats for attachments. The applicant must sign and certify all electronic submissions in accordance with the signature requirements in Schedule F, Section D8 of this permit.

- d. An existing operation that fails to notify or submit a complete application to DEQ as required in 3.a, 3.b, 3.c.i and 3.c. ii above may result in an end of permit coverage for that discharge.

#### **4. Renewing Coverage Prior to Permit Expiration**

An application for permit renewal must be submitted at least 180 days prior to permit expiration on DEQ-approved application forms to continue permit coverage. DEQ may accept an application less than 180 day prior to permit expiration but no later than the permit expiration.

## SCHEDULE A1: WASTE DISCHARGE LIMITS FOR INDUSTRIAL FACILITIES

### 1. Permit Limits

During the term of this permit, the registrant must comply with the limits in the following table:

**Table A1-1: Permit Limits**

Parameter	Units	Average Monthly	Daily Maximum
Effluent Flow (See note 1)	MGD	-----	0.5
Total Residual Chlorine (See notes 2 and 3)	mg/L	0.011	0.019
pH (See note 4)	SU	Instantaneous limit between a daily minimum of 6.0 and a daily maximum of 9.0	
Temperature (Spawning, See note 5)	°C	9.3 during periods where bull trout spawning is a designated use and 13.3 during periods where salmon and steelhead spawning is a designated use (as a 7-day rolling average)	
Temperature (Acute Impairment)	°C	-----	32
Thermal Load (See note 6 and 8)	MGD * °F	-----	25
Excess Thermal Load Limit (Non-Natural Lake Discharge, See notes 6, 7, 8, and 9)	million kcal/day	$Q_{ed} * S_{MZ} * 1.14$ (as a 7-day rolling average)	
Excess Thermal Load Limit (Natural Lake Discharge, See notes 6, 7, 8 and 10)	million kcal/day	$Q_{ed} * 1.14$ (as a 7-day rolling average)	

Notes:

1. Total maximum daily design flow.
2. DEQ has established a Quantitation Limit of 0.05 mg/L for Total Residual Chlorine. Any analysis done for Total Residual Chlorine must have a QL that is either equal to or less than 0.05 mg/L. In cases where the average monthly or maximum daily limit for Total Residual Chlorine is lower than the QL, DEQ will use the reported Quantitation Limit as the compliance evaluation level.
3. Total Residual Chlorine limits will not apply to a facility when its application indicates that chlorine is not added, potable (i.e., chlorinated) water is not used as a source of non-contact cooling water, or the source water for non-contact cooling water has a total residual chlorine concentration that is less than the QL.
4. When a discharge occurs to a Category 4A water for which a total maximum daily load is approved or established by EPA, effluent limits for pH shall be consistent with the wasteload allocation established in the TMDL at the time of permit issuance. When a discharge occurs to a Category 5 impaired water on DEQ's 303(d) list, approved or established by EPA at the time of permit assignment, the instantaneous limit must meet the daily minimum and/or daily maximum pH for freshwater quality basin criterion in OAR 340-041-0101 through 340-041-0350 for that pH impairment. For example, if the listed impairment is solely for high pH, the daily minimum shall remain 6.0, and if the listed impairment is solely for low pH, the daily maximum limit shall remain



Parameter	Units	Average Monthly	Daily Maximum																				
<p>9.0. If continuous monitoring for pH is used, the pH may not be outside the permit limit range for more than a total of 7 hours and 26 minutes in any calendar month, and no individual excursion from this range may exceed 60 minutes.</p> <p>5. Applicable to discharges to receiving streams segments where and when spawning criteria apply, unless documentation is submitted and approved by DEQ as contained in Schedule D1.2.</p> <p>6. <math>Q_{ed}</math> is the maximum design effluent flow from a facility for all outfalls (MGD). Total maximum daily design flow is not to exceed 0.5 MGD.</p> <p>7. The excess thermal load is the thermal load above the applicable biologically based numeric temperature criterion. For a discharge to a natural lake, the excess thermal load is the thermal load above its ambient temperature. The ambient temperature of a natural lake that is determined as required in Schedule D1.5 and is approved by DEQ will apply.</p> <p>8. If there is no fish use designation in the receiving water, then the thermal load and excess thermal load limits do not apply to that discharge. These types of discharges must not cause or contribute to an exceedance of temperature water quality standards in the next downstream waterbody with a fish use designation. Documentation must be submitted by the applicant and approved by DEQ as contained in Schedule D1.6.</p> <p>9. <math>S_{MZ}</math> is the critical mixing zone dilution assigned by DEQ at the time of permit assignment. The <math>S_{MZ}</math> is the lower of the calculated value of <math>S_{25}</math> or <math>S_{MZ}</math> Max in the table below. The calculation of <math>S_{25}</math> critical dilution is as follows: <math>S_{25} = [(Q_{ed} * 1.5472) + (Q_a * 0.25)] / (Q_{ed} * 1.5472)</math>, where <math>Q_a</math> is the low flow of the receiving water, e.g., 7Q10, in cfs.</p> <table border="1" data-bbox="625 1003 1128 1465"> <thead> <tr> <th colspan="2">Mixing Zone Maximum Dilution</th> </tr> <tr> <th><math>S_{25}</math></th> <th><math>S_{MZ}</math> Max</th> </tr> </thead> <tbody> <tr> <td>≤38</td> <td>22</td> </tr> <tr> <td>&gt;38 and ≤51</td> <td>24</td> </tr> <tr> <td>&gt;51 and ≤63</td> <td>27</td> </tr> <tr> <td>&gt;63 and ≤76</td> <td>29</td> </tr> <tr> <td>&gt;76 and ≤101</td> <td>32</td> </tr> <tr> <td>&gt;101 and ≤126</td> <td>37</td> </tr> <tr> <td>&gt;126 and ≤251</td> <td>42</td> </tr> <tr> <td>&gt;251</td> <td>67</td> </tr> </tbody> </table>				Mixing Zone Maximum Dilution		$S_{25}$	$S_{MZ}$ Max	≤38	22	>38 and ≤51	24	>51 and ≤63	27	>63 and ≤76	29	>76 and ≤101	32	>101 and ≤126	37	>126 and ≤251	42	>251	67
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<p>10. The critical dilution provided for a discharge to a natural lake is limited to one (1).</p>																							

**2. Additional Permit Limits**

- a. In addition to the limits included above, a registrant must also comply with the applicable excess thermal load limit as contained in Appendix A.
- b. If available, an applicant seeking coverage for discharge to the mainstem Willamette River must obtain a small source bubble allocation.
- c. The registrant is prohibited from discharging a visible sheen.
- d. The discharge of biocides and water treatment chemicals that contain chromium, copper, zinc, chlorinated phenols or other priority pollutants is prohibited.

### 3. Regulatory Mixing Zone

Pursuant to OAR 340-041-0053, the registrant is granted a regulatory mixing zone as described below:

- a. For discharges to streams, the regulatory mixing zone allows mixing with 25 percent of the receiving stream. The zone of immediate dilution allows mixing with 10 percent of the receiving stream.
- b. For discharges to natural lakes, there is no regulatory mixing zone or zone of initial dilution.

### 4. Land Application of Industrial Non-Contact Cooling Water

- a. This permit authorizes the registrant to reuse non-contact cooling water generated at their facility either on their property or a neighboring property, if all of the following conditions are met:
  - i. Both the registrant generating process water and the entity reusing process water agree to reuse the process water in accordance with all conditions of this permit.
  - ii. A written agreement between the generator and user is in place, is current, and is being complied between the person generating process water and owner of the property where process water reuse occurs.
  - iii. The agreement between generator and user includes DEQ Inspection and Entry conditions that are applicable to all portions of the process water distribution system.
  - iv. The reuse non-contact cooling water must be:
    - (A) Land applied only during the growing season when the crops need the additional moisture.
    - (B) Managed in accordance with its DEQ-approved Land Application Plan.
    - (C) Used in a manner and applied at an appropriate agronomic rate that does not adversely affect groundwater quality.
    - (D) Applied at a rate and in accordance with site management practices that ensure continued agricultural, horticultural, or silvicultural production and does not inhibit or reduce the productivity of the site.
  - v. The process reuse system must be designed, installed, and operated to meet the following setbacks (in feet):

**Table A1-2: Land Application Setbacks**

Feature requiring setback	Process water storage or surge tank (feet)	Point of process water applied to land (feet)
Groundwater supplies and wells	50	100
Springs	50	100
Waters of the state, excluding springs	50	50
Stormwater management structures, collection systems, and catch basins	10	10
Underground injection control systems (UICs)	10	10
Property boundaries	5	2
Building structures	0	0

b. Non-Contact Cooling Water Irrigation Management

The registrant may land apply process water pursuant to the following limitations:

- i. Irrigation sites must be located on stable geologic formations not subject to flooding or excessive runoff to adjacent land at the time of irrigation.
- ii. Process water must not be applied to areas with slopes exceeding 45 percent.
- iii. Process water must not be applied to frozen or saturated soil.
- iv. Process water can only be land applied during the growing season when the crop needs the additional moisture.
- v. Process water must be applied using sound irrigation practices such that:
  - (A) There is no runoff of process water, contaminant leaching, or subsurface drainage through drainage tile,
  - (B) Does not cause erosion,
  - (C) Does not hydraulically overload the soil profile, and
  - (D) Does not overload the soil with nutrients, organics or other pollutants.
- vi. The soil and vegetation in the irrigation area must have capacity to accommodate the volume and rate of process water applied so that discharge to surface water or leaching to groundwater does not occur.
- vii. Process water irrigation must not create objectionable odors, fly or mosquito breeding, or other nuisance conditions.
- viii. Process water irrigation must not reduce or inhibit the field's productivity.

c. Process Water Strength

Process water may be land applied for irrigation or reused for other beneficial reuse purposes, provided the process water meets the benchmarks in Table A1-3 below and is managed in accordance with the facility's land application plan. If these benchmarks are exceeded, the facility must notify DEQ, identify the cause of the exceedance and develop a plan to prevent the exceedance from occurring again.

**Table A1-3: Process Water Benchmarks**

Constituent	Units	Monthly Average Benchmarks
Sodium Adsorption Ratio (SAR)		3
Electrical Conductivity (EC)	dS/m	2
pH	SU	6.0 – 8.5

## SCHEDULE A2: WASTE DISCHARGE LIMITS FOR HYDROELECTRIC FACILITIES

### 1. Permit Limits for Cooling Water Wastewater

During the term of this permit, the registrant must comply with the limits for cooling water wastewater in the following table:

**Table A2-1: Permit Limits**

Parameter	Units	Average Monthly	Daily Maximum
pH (See note 1)	SU	Instantaneous limit between a daily minimum of 6.0 and a daily maximum of 9.0	
Total Residual Chlorine (See notes 2 and 3)	mg/L	0.011	0.019
Temperature	°C	-----	32
Temperature (See note 4)	°C	9.3 during periods where bull trout spawning is a designated use and 13.3 during periods where salmon and steelhead spawning is a designated use (as a 7-day rolling average)	
Excess Thermal Load Limit– Hydropower Facilities (See notes 5, 6 and 7)	million kcal/day	$Q_{ed} * S_{MZ} * 1.14$ (as a 7-day rolling average)	

**Notes:**

1. When a discharge occurs to a Category 4A water for which a total maximum daily load is approved or established by EPA, effluent limits for pH shall be consistent with the wasteload allocation established in the TMDL at the time of permit issuance. When a discharge occurs to a Category 5 impaired water on DEQ’s 303(d) list, approved or established by EPA at the time of permit assignment, the instantaneous limit must meet the daily minimum and/or daily maximum pH for freshwater quality basin criterion in OAR 340-041-0101 through 340-041-0350 for that pH impairment. For example, if the listed impairment is solely for high pH, the daily minimum shall remain 6.0, and if the listed impairment is solely for low pH, the daily maximum limit shall remain 9.0. If continuous monitoring for pH is used, the pH may not be outside the permit limit range for more than a total of 7 hours and 26 minutes in any calendar month, and no individual excursion from this range may exceed 60 minutes.
2. DEQ has established a Quantitation Limit of 0.05 mg/L for Total Residual Chlorine. Any analysis done for Total Residual Chlorine must have a quantitation limit that is either equal to or less than 0.05 mg/L. In cases where the average monthly or maximum daily limit for Total Residual Chlorine is lower than the Quantitation Limit, DEQ will use the reported Quantitation Limit as the compliance evaluation level.
3. Total Residual Chlorine limits will not apply to a facility when its application indicates that chlorine is not added or that potable (i.e., chlorinated) water is not used as a source of water or the source water has a total residual chlorine concentration that is less than the Quantitation Limit of 0.05 mg/L.
4. Applicable to discharges to receiving streams segments where and when spawning criteria apply, unless documentation is submitted and approved by DEQ as contained in Schedule D2.1.
5.  $Q_{ed}$  is the maximum design effluent flow from a facility for all cooling water outfalls (MGD).
6.  $S_{MZ}$  is the critical mixing zone dilution assigned by DEQ at the time of permit assignment. The  $S_{MZ}$  is the lower of the calculated value of  $S_{25}$  or  $S_{MZ}$  Max in the table below. The calculation of critical

Parameter	Units	Average Monthly	Daily Maximum																				
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**2. Permit Limits for Sump Pump Type Wastewater**

During the term of this permit, the registrant must comply with the limits for sump pump type wastewater in the table below:

**Table A2-2: Permit Limits**

Parameter	Units	Average Monthly	Daily Maximum
pH (See note 1)	SU	Instantaneous limit between a daily minimum of 6.0 and a daily maximum of 9.0	
Oil and Grease (See note 2)	mg/L	-----	10

Notes:

- When a discharge occurs to a Category 4A water for which a total maximum daily load is approved or established by EPA, effluent limits for pH shall be consistent with the wasteload allocation established in the TMDL at the time of permit issuance. For a discharge to a Category 5 impaired water on DEQ's 303(d) list, approved or established by EPA at the time of permit assignment, the instantaneous limit must meet the daily minimum and/or daily maximum pH for freshwater quality basin criterion in OAR 340-041-0101 through 340-041-0350 for that pH impairment. For example, if the listed impairment is solely for high pH the daily minimum shall remain 6.0, and if the listed impairment is solely for low pH, the daily maximum limit shall remain 9.0. If continuous monitoring for pH is used, the pH may not be outside the permit limit range for more than a total of 7 hours and 26 minutes in any calendar month, and no individual excursion from this range may exceed 60 minutes.
- Oil and Grease limits will apply to any outfall identified on the application form as containing a sump pump type wastewater, including but not limited to any combination of floor drainage wastewater, unwatering wastewater, air compressor condensation, equipment valves, seal leakage wastewater and roof drainage and cooling water that is commingled with other wastewater.

### **3. Additional Permit Limits**

- a. A registrant must also comply with the applicable excess thermal load limit as contained in Appendix A.
- b. If available, an applicant seeking coverage for discharge to the mainstem Willamette River must obtain a small source bubble allocation.
- c. The registrant is prohibited from discharging a visible sheen.

### **4. Regulatory Mixing Zone**

Pursuant to OAR 340-041-0053, the registrant is granted a regulatory mixing zone as described below:

The regulatory mixing zone allows mixing with 25 percent of the receiving stream. The zone of immediate dilution allows mixing with 10 percent of the receiving stream.

## **SCHEDULE B: MINIMUM MONITORING AND REPORTING REQUIREMENTS**

### **1. Reporting Requirements**

The registrant must sample effluent in a manner that is representative of the wastewater discharge and submit to DEQ monitoring results and reports as listed below.

### **2. Monitoring and Reporting Protocols**

#### **a. Paper Submissions**

The registrant must submit to DEQ the results of monitoring as indicated in Schedule B on approved paper forms and include any attachments as specified below:

- i. The reporting period is the calendar month. A report is due each calendar month even when there is no discharge.
- ii. The registrant must submit monitoring data and other information required by this permit by the 15<sup>th</sup> day of the month following the reporting period unless specified otherwise in this permit or as specified in writing by DEQ.

#### **b. Electronic Submissions**

When DEQ directs, the registrant must submit to DEQ the results of monitoring indicated in Schedule B in an electronic format as specified below.

- i. The registrant must submit monitoring results required by this permit via DEQ-approved web-based Discharge Monitoring Report (DMR) forms to DEQ via electronic reporting. Any data used to calculate summary statistics must be submitted as a separate attachment approved by DEQ via electronic reporting.
- ii. The reporting period is the calendar month. A report is due each calendar month even when there is no discharge.
- iii. The registrant must submit monitoring data and other information required by this permit for all compliance points by the 15<sup>th</sup> day of the month following the reporting period unless specified otherwise in this permit or as specified in writing by DEQ.

#### **c. Test Methods**

The registrant must conduct monitoring according to test procedures in 40 CFR Part 136 or other approved procedures as per Schedule F.

#### **d. Detection and Quantitation Limits**

- i. **Detection Level (DL)** – The DL is defined as the minimum measured concentration of a substance that can be distinguished from method blank results with 99% confidence. The DL is derived using the procedure in 40 CFR Part 136 Appendix B and evaluated for reasonableness relative to method blank concentrations to ensure results reported above the DL are not a result of routine background contamination. The DL is also known as the Method Detection Limit (MDL) or Limit of Detection (LOD).
- ii. **Quantitation Limits (QLs)** – The QL is the minimum level, concentration or quantity of a target analyte that can be reported with a specified degree of confidence. It is the lowest level at which the entire analytical system gives a recognizable signal and acceptable calibration for the analyte. It is normally equivalent to the concentration of the lowest calibration standard adjusted for sample weights, volumes, preparation and cleanup procedures employed. The QL as reported by a laboratory is also sometimes referred to as the Method Reporting Limit (MRL) or Limit of Quantitation (LOQ).

- e. Sufficient Sensitivity of Quantitation Limits
- i. The Laboratory QLs (adjusted for any dilutions) for analyses performed to demonstrate compliance with permit limits or as part of effluent characterization, must meet at least one of the requirements below:
    - (A) The QL is at or below the level of the water quality criterion for the measured parameter.
    - (B) The QL is above the water quality criterion but the amount of the pollutant in a facility's discharge is high enough that the method detects and quantifies the level of the parameter in the discharge.
    - (C) The QL has the lowest sensitivity of the analytical methods procedure specified in 40 CFR Part 136.
    - (D) The QL is at or below those defined in Oregon DEQ list of quantitation limits posted online at the DEQ Water Quality Permits website, <https://www.oregon.gov/deq/wq/wqpermits/Pages/default.aspx>.
  - ii. Matrix effects are present that prevent the attainment of QLs and these matrix effects are demonstrated according to procedures described in EPA's "*Solutions to Analytical Chemistry Problems with Clean Water Act Methods*", March 2007. If using alternative methods and taking appropriate steps to eliminate matrix effects does not eliminate the matrix problems, DEQ may authorize in writing re-sampling or allow a higher QL to be reported.
- f. Quality Assurance and Quality Control
- i. Quality Assurance Plan – The registrant must develop and implement a written Quality Assurance and Quality Control Plan that details the facility sampling procedures, equipment calibration and maintenance, analytical methods, quality control activities and laboratory data handling and reporting. The QA/QC Plan must conform to the requirements of 40 CFR Part 136.7.
  - ii. If QA/QC requirements are not met for any analysis, the registrant must re-analyze the sample. If the sample cannot be re-analyzed, the registrant must re-sample and analyze at the earliest opportunity. If the registrant is unable to collect a sample that meets QA/QC requirements, then the registrant must include the result in the discharge monitoring report (DMR) along with a notation (data qualifier). In addition, the registrant must explain how the sample does not meet QA/QC requirements. The registrant may not use the result that failed the QA/QC requirements in any calculation required by the permit unless authorized in writing by DEQ.
  - iii. Flow measurement, field measurement, and continuous monitoring devices – The registrant must:
    - (A) Establish verification and calibration frequency for each device or instrument in the quality assurance plan that conforms to the frequencies recommended by the manufacturer.
    - (B) Verify at least once per year that flow-monitoring devices are functioning properly according to manufacturer's recommendation. Calibrate as needed according to manufacturer's recommendations.
    - (C) Verify at least weekly that the continuous monitoring instruments are functioning properly according to manufacturer's recommendation unless the registrant demonstrates a longer period is sufficient and such longer period is approved by DEQ in writing.



- g. Reporting Sample Results
  - i. The registrant must report the laboratory DL and QL as defined above for each analyte, with the following exceptions: pH, temperature, BOD, CBOD, TSS, Oil & Grease, hardness, alkalinity, bacteriological analytes and nitrate-nitrite. For temperature and pH, neither the QL nor the DL need to be reported. For the other parameters listed above, the registrant is only required to report the QL and only when the result is ND.
  - ii. The registrant must report the same number of significant digits as the permit limit for a given parameter.
  - iii. (For Discharge Monitoring Reports) If a sample result is above the DL but below the QL, the registrant must report the result as the DL preceded by DEQ’s data code “E”. For example, if the DL is 1.0 µg/l, the QL is 3.0 µg/L and the result is estimated to be between the DL and QL, the registrant must report “E1.0 µg/L” on the DMR. This requirement does not apply in the case of parameters for which the DL does not have to be reported.
  - iv. (For Discharge Monitoring Reports) If the sample result is below the DL, the registrant must report the result as less than the specified DL. For example, if the DL is 1.0 µg/L and the result is ND, report “<1.0” on the discharge monitoring report (DMR). This requirement does not apply in the case of parameters for which the DL does not have to be reported.

**3. Monitoring and Reporting Requirements for Industrial Facilities (Maximum Design Effluent Flow Rate less than 0.05 MGD)**

- a. The registrant must conduct monitoring that is representative of its discharge after final treatment and prior to discharge or dilution.
- b. The registrant must monitor and report results in accordance with the Table B1. A registrant may request a reduction in the minimum monitoring frequency per condition 3.c. below. DEQ will not allow a reduction in monitoring for flow, temperature, thermal load, or excess thermal load.
- c. A registrant may submit a request for a reduction in the minimum effluent monitoring frequency at an outfall. The request must include a 12-month summary of the discharge data for each parameter and outfall for which a reduction is requested, and a statement that sampling and analysis met requirements of Schedule B.1 and B.2. For a parameter assigned a monitoring frequency that is more frequent than quarterly, the frequency will be reduced to quarterly. For a parameter assigned a quarterly monitoring frequency, that frequency will be reduced to annually. A reduction in monitoring frequency must receive DEQ approval. A reduced monitoring frequency must return to the original frequency for the remainder of the permit term if a discharge limit for that parameter is exceeded. A registrant must notify DEQ per Schedule F Section D when a parameter is exceeded and, when DEQ directs, resume monitoring at the original frequency for the remainder of the permit term.

**Table B1: Effluent Monitoring Requirements for Industrial Facilities (Maximum Design Effluent Flow Rate less than 0.05 MGD)**

Item or Parameter	Units	Time Period	Minimum Frequency	Sample Type/ Required Action (See note a)	Report Statistic (See note b)
Flow (50050)	MGD	Year-round	Weekly (See note c)	Metered/Measured	1. Daily Maximum
pH Grab Sampling (00400)	SU	Year-round	Monthly	Grab	1. Daily Maximum

Item or Parameter		Units	Time Period	Minimum Frequency	Sample Type/ Required Action (See note a)	Report Statistic (See note b)
						2. Daily Minimum
pH Continuous Sampling (See note d)	pH (00400)	SU	Year-round	Daily	Continuous	1. Monthly Maximum 2. Monthly Minimum
	pH range excursions, >60 minutes (82581)	Occurrences per month	Year-round	Monthly	Calculation	1. Total
	pH range excursions, monthly total accumulated (82582)	Minutes	Year-round	Monthly	Calculation	1. Total
Chlorine, Total Residual (50060) (See note e)		mg/L	Year-round	Monthly	Grab	1. Daily Maximum 2. Monthly Average
Temperature (00010)		°C	Year-round	Monthly	Grab (See note f)	1. Daily Maximum 2. 7-day Rolling Average of Daily Maximum
Temperature (00010)		°C	Year-round	Daily	Continuous	1. Daily Maximum 2. 7-day Rolling Average of Daily Maximum
Thermal Load		MGD * °F	Year-round	Monthly	Calculation (See note g)	1. Daily Maximum
Excess Thermal Load (BBNC or Ambient Natural Lake criteria) (51405)		Million kcal/day	Year-round	Monthly	Calculation (See note h)	1. Maximum 7-day Rolling Average
Excess Thermal Load (TMDL based) (51405)		Million kcal/day	Year-round	Monthly	Calculation (See note h, i)	1. Maximum 7-day Rolling Average
Oil and Grease (Visual) (84066)		No/Yes	Year-round	Monthly	Visual	1. Value
Oil and Grease (00556)		mg/L	Year-round	Conditional (See note j)	Grab	1. Daily Maximum
Alkalinity as CaCO <sub>3</sub> (00410)		mg/L	Year-round	Quarterly	Grab	1. Value

Item or Parameter	Units	Time Period	Minimum Frequency	Sample Type/ Required Action (See note a)	Report Statistic (See note b)
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Notes:

- a. For any continuous monitoring: In the event of equipment failure or loss, the registrant must notify DEQ and deploy new equipment to minimize interruption of data collection. If new equipment cannot be immediately deployed, the registrant must perform grab measurements. If the failure or loss is for continuous temperature monitoring equipment, the registrant must perform grab measurements daily between 12 PM and 5 PM until continuous monitoring equipment is redeployed.
- b. When submitting DMRs electronically, all data used to determine summary statistics must be submitted in a DEQ-approved format as a spreadsheet via electronic reporting unless otherwise directed by DEQ.
- c. Flow may be monitored as a weekly total. Calculate daily flow in MGD by using the weekly total flow divided by the days of operation that week. The Daily Maximum flow is the largest calculated daily value. If a week spans two months, the calculated daily value is applied to both months.
- d. A registrant has the option to use continuous monitoring for pH. An applicant must indicate the chosen method of pH sampling and use that method for the duration of permit coverage unless otherwise approved in writing by DEQ. See also requirements for Quality Assurance and Quality Control in Schedule B.2.f and the equipment failure grab sampling requirement in Note a. above.
- e. Total Residual Chlorine sampling is not required for facilities when its application indicates that chlorine is not added or that potable (i.e., chlorinated) water is not used as a source of water or the source water has a total residual chlorine concentration that is less than the Quantitation Limit of 0.05 mg/L.
- f. Temperature reading must be taken on a day that flow is metered/measured.
- g. Use daily flow ( $Q_e$ ) in MGD and the temperature ( $T_e$ ) in °C that corresponds to that day to calculate Thermal Load based on this equation:  $[Q_e * (T_e * 1.8 + 32)]$ .
- h. For results from a grab sample, the excess thermal load (ETL) must be calculated using the daily effluent temperature and the corresponding daily effluent flow (See note c. above) using the formula below. The 7-day rolling average is then calculated from the daily ETLs.

The daily ETL is calculated as follows:  $ETL = 3.785 * Q_e * \Delta T$

Where:

ETL = Excess Thermal Load (million kcal/day)

$Q_e$  = Daily Effluent flow (MGD)

$\Delta T = (T_e - T_c)$

$T_e$  = Daily Effluent temperature (°C)

$T_c$  = Ambient temperature criterion based on biologically based numeric criteria (BBNC, °C), ambient natural lake criteria (°C) or applicable TMDL system potential temperature (°C) contained in a TMDL.

For results from continuous monitoring, the excess thermal load (ETL) must be calculated using the daily maximum effluent temperature and the corresponding daily effluent flow (see note c. above) using the formula below. The 7-day rolling average is then calculated from the daily ETLs.

The daily ETL is calculated as follows:  $ETL = 3.785 * Q_e * \Delta T$

Where:

ETL = Excess Thermal Load (million kcal/day)

$Q_e$  = Daily Effluent flow (MGD)

$\Delta T = (T_e - T_c)$

$T_e$  = Daily Maximum Effluent temperature (°C) from continuous monitoring

$T_c$  = Ambient temperature criterion based on biologically based numeric criteria (BBNC, °C), ambient natural lake criteria (°C) or applicable TMDL system potential temperature (°C) contained in a TMDL.

- i. This excess thermal load is only required for registrants with an applicable WLA in Appendix A.
- j. The registrant must observe the surface of the receiving water in the vicinity of where the effluent enters the receiving water at a minimum of once per month. If a visible sheen is observed, take corrective action to stop the sheen. Sample the effluent for oil and grease and report the results in the monthly monitoring report. For a

Item or Parameter	Units	Time Period	Minimum Frequency	Sample Type/ Required Action (See note a)	Report Statistic (See note b)
discharge through a storm sewer, a permit holder must observe its discharge for an oily sheen at the point where that storm sewer discharges into a receiving water. No observation is required at the point of discharge from the storm sewer to the receiving water if the discharge point into the storm sewer can be observed and if, at that point, the discharge does not have an oily sheen.					

**4. Monitoring and Reporting Requirements for Industrial Facilities (Maximum Design Effluent Flow Rate 0.05 MGD to 0.5 MGD)**

- a. The registrant must conduct monitoring that is representative of its discharge after final treatment and prior to discharge or dilution.
- b. The registrant must monitor and report results in accordance with the Table B2 below. A registrant may request a reduction in the minimum monitoring frequency per condition 4.c. below. However, DEQ will not allow a reduction in monitoring for flow, temperature, thermal load or excess thermal load.
- c. A registrant may submit a request for a reduction in the minimum effluent monitoring frequency at an outfall. The request must include a 12-month summary of the discharge data for each parameter and outfall for which a reduction is requested, and a statement that sampling and analysis met the requirements of Schedule B.1 and B.2. For a parameter assigned a monitoring frequency that is more frequent than quarterly, the frequency will be reduced to quarterly. For a parameter assigned a quarterly monitoring frequency, that frequency will be reduced to annually. A reduction in monitoring frequency must receive DEQ approval. A reduced monitoring frequency must return to the original frequency for the remainder of the permit term if a discharge limit for that parameter is exceeded. A registrant must notify DEQ per Schedule F Section D when a parameter is exceeded and, when DEQ directs, resume monitoring at the original frequency for the remainder of the permit term.

**Table B2: Effluent Monitoring Requirements for Industrial Facilities (Maximum Design Effluent Flow Rate 0.05 MGD to 0.5 MGD)**

Item or Parameter	Units	Time Period	Minimum Frequency	Sample Type/ Required Action (See note a)	Report Statistic (See note b)
Flow (50050)	MGD	Year-round	Weekly (See note c)	Metered/Measured	1. Daily Maximum
pH Grab Sampling (00400)	SU	Year-round	Weekly	Grab	1. Daily Maximum 2. Daily Minimum
pH Continuous Sampling (See note d)	pH (00400)	SU	Year-round	Continuous	1. Monthly Maximum 2. Monthly Minimum
	pH range excursions, >60 minutes (82581)	Occurrences per month	Year-round	Monthly	Calculation

Item or Parameter	Units	Time Period	Minimum Frequency	Sample Type/ Required Action (See note a)	Report Statistic (See note b)
pH range excursions, monthly total accumulated (82582)	Minutes	Year-round	Monthly	Calculation	1. Total
Chlorine, Total Residual (50060) (See note e)	mg/L	Year-round	Weekly	Grab	1. Daily Maximum 2. Monthly Average
Temperature (00010)	°C	Year-round	Weekly	Grab (See note f)	1. Daily Maximum
Temperature (00010)	°C	Year-round	Daily	Continuous	1. Daily Maximum 2. 7-day Rolling Average of Daily Maximum
Thermal Load	MGD * °F	Year-round	Weekly	Calculate (See note g)	1. Daily Maximum
Excess Thermal Load (BBNC or Ambient Natural Lake Criteria) (51405)	Million kcal/day	Year-round	Weekly	Calculation (See note h)	1. Maximum 7-day Rolling Average
Excess Thermal Load (TMDL based) (51405)	Million kcal/day	Year-round	Weekly	Calculation (See note h, i)	1. Maximum 7-day Rolling Average
Oil and Grease (Visual) (84066)	No/Yes	Year-round	Weekly	Visual	1. Value
Oil and Grease (00556)	mg/L	Year-round	Conditional (See note j)	Grab	1. Daily Maximum
Alkalinity as CaCO <sub>3</sub> (00410)	mg/L	Year-round	Quarterly	Grab	1. Value

Notes:

- a. For any continuous monitoring: In the event of equipment failure or loss, the registrant must notify DEQ and deploy new equipment to minimize interruption of data collection. If new equipment cannot be immediately deployed, the registrant must perform grab measurements. If the failure or loss is for continuous temperature monitoring equipment, the registrant must perform grab measurements daily between 12 PM and 5 PM until continuous monitoring equipment is redeployed.
- b. When submitting DMRs electronically, all data used to determine summary statistics must be submitted in a DEQ-approved format as a spreadsheet via electronic reporting unless otherwise directed by DEQ.
- c. Flow may be monitored as a weekly total. Calculate daily flow in MGD by using the weekly total flow divided by the days of operation that week. The Daily Maximum flow is the largest calculated daily value. If a week spans two months, the calculated daily value is applied to both months.
- d. A registrant has the option to use continuous monitoring for pH. An applicant must indicate the chosen method of pH sampling and use that method for the duration of permit coverage unless otherwise approved in writing by DEQ. See also requirements for Quality Assurance and Quality Control in Schedule B.2.f and the equipment failure grab sampling requirement in Note a. above.

Item or Parameter	Units	Time Period	Minimum Frequency	Sample Type/ Required Action (See note a)	Report Statistic (See note b)
<p>e. Total Residual Chlorine sampling is not required for facilities when its application indicates that chlorine is not added or that potable (i.e., chlorinated) water is not used as a source of water or the source water has a total residual chlorine concentration that is less than the Quantitation Limit of 0.05 mg/L.</p> <p>f. Temperature reading must be taken on a day that flow is metered/measured.</p> <p>g. Use daily flow (<math>Q_e</math>) in MGD and the temperature (<math>T_e</math>) in °C that corresponds to that day to calculate Thermal Load based on this equation: [<math>Q_e * (T_e * 1.8 + 32)</math>].</p> <p>h. For results from a grab sample, the excess thermal load (ETL) discharged must be calculated using the daily effluent temperature and the corresponding daily effluent flow (See note c above) using the formula below. The 7-day rolling average is then calculated from the daily ETLs.</p> <p>The daily ETL is calculated as follows: <math>ETL = 3.785 * Q_e * \Delta T</math>            Where:  <math>ETL =</math> Excess Thermal Load (million kcal/day)  <math>Q_e =</math> Daily Effluent flow (MGD)  <math>\Delta T = (T_e - T_c)</math>  <math>T_e =</math> Daily Effluent temperature (°C)  <math>T_c =</math> Ambient temperature criterion based on biologically based numeric criteria (BBNC, °C), ambient natural lake criteria (°C) or applicable TMDL system potential temperature (°C) contained in a TMDL.</p> <p>For results from continuous monitoring, the excess thermal load (ETL) must be calculated using the daily maximum effluent temperature and the corresponding daily effluent flow (see note c. above) using the formula below. The 7-day rolling average is then calculated from the daily ETLs.</p> <p>The daily ETL is calculated as follows: <math>ETL = 3.785 * Q_e * \Delta T</math>            Where:  <math>ETL =</math> Excess Thermal Load (million kcal/day)  <math>Q_e =</math> Daily Effluent flow (MGD)  <math>\Delta T = (T_e - T_c)</math>  <math>T_e =</math> Daily Maximum Effluent temperature (°C) from continuous monitoring  <math>T_c =</math> Ambient temperature criterion based on biologically based numeric criteria (BBNC, °C), ambient natural lake criteria (°C) or applicable TMDL system potential temperature (°C) contained in a TMDL.</p> <p>i. This excess thermal load is only required for registrants with an applicable WLA in Appendix A.</p> <p>j. The registrant must observe the surface of the receiving water in the vicinity of where the effluent enters the receiving water at a minimum of once per week. If a visible sheen is observed, take corrective action to stop the sheen. Sample the effluent for oil and grease and report the results in the next monthly monitoring report. For a discharge through a storm sewer, a permit holder must observe its discharge for an oily sheen at the point where that storm sewer discharges into a receiving water. No observation is required at the point of discharge from the storm sewer to the receiving water, if the discharge point into the storm sewer can be observed and if, at that point, the discharge does not have an oily sheen.</p>					

**5. Reuse Water Monitoring Requirements for Industrial Facilities:**

The registrant must monitor its reuse water as listed below. The samples must be representative of the reuse water delivered for beneficial reuse at a location identified in the Land Application Plan. All monitoring identified in Table B3 below are only required when the facility is land applying.

**Table B3: Land Applied Water Monitoring**

Item or Parameter	Minimum Frequency	Sample Type/ Required Action	Report
Total Flow (MGD)	Daily	Metered/Measured	Annual Report
pH	Twice Weekly	Grab	Annual Report
Turbidity	Twice Weekly	Measurement	Annual Report
Sodium Adsorption Ratio (SAR)	Quarterly	Calculation	Annual Report
Electrical Conductivity (EC)	Quarterly	Grab	Annual Report
Other parameters as identified in facility's Land Application Plan	As stated in Land Application Plan	As stated in Land Application Plan	Annual Report

**6. Monitoring Requirements for a Hydroelectric Facility**

- a. The registrant must conduct monitoring that is representative of its discharge after final treatment and prior to discharge or dilutions.
- b. The registrant must conduct monitoring and reporting of its cooling water discharge in accordance with Table B4 below.
- c. The registrant must conduct monitoring and reporting of its sump pump discharge in accordance with Table B5 below.
- d. A registrant may request a reduction in the minimum monitoring frequency per condition 6.e. below. DEQ will not allow a reduction in monitoring for flow, temperature, excess thermal load, visual sheen or monitoring for oil and grease after confirming a visual sheen.
- e. A registrant may submit a request for a reduction in the minimum effluent monitoring frequency at an outfall. The request must include a 12-month summary of the discharge data for each parameter and outfall for which a reduction is requested and a statement that sampling and analysis met requirements of Schedule B.1 and B.2. For a parameter assigned a monitoring frequency that is more frequent than quarterly, the frequency will be reduced to quarterly. For a parameter assigned a quarterly monitoring frequency, that frequency will be reduced to annually. A reduction in monitoring frequency must receive DEQ approval. A reduced monitoring frequency must return to the original frequency for the remainder of the permit term if a discharge limit for that parameter is exceeded. A registrant must notify DEQ per Schedule F Section D, when a parameter is exceeded and, when DEQ directs, resume monitoring at the original frequency for the remainder of the permit term.

**Table B4: Effluent Monitoring Requirements for Cooling Water Outfalls at a Hydroelectric Facility**

Item or Parameter		Units	Time Period	Minimum Frequency	Sample Type/ Required Action (See note a)	Report Statistic (See note b)
Flow (50050)		MGD	Year-round	Weekly (See note c)	Metered/Measured	1. Daily Maximum
pH Grab Sampling (00400)		SU	Year-round	Quarterly	Grab	1. Daily Maximum 2. Daily Minimum
pH Continuous Sampling (See note d)	pH (00400)	SU	Year-round	Daily	Continuous	1. Monthly Maximum 2. Monthly Minimum
	pH range excursions, >60 minutes (82581)	Occurrences per month	Year-round	Monthly	Calculation	1. Total
	pH range excursions, monthly total accumulated (82582)	Minutes	Year-round	Monthly	Calculation	1. Total
Chlorine, Total Residual (See note e) (50060)		mg/L	Year-round	Quarterly	Grab	1. Daily Maximum 2. Monthly Average
Temperature (00010)		°C	Year-round	Weekly	Grab (See note f)	1. Daily Maximum 2. 7-day Rolling Average of Daily Maximum
Temperature (00010)		°C	Year-round	Daily	Continuous	1. Daily Maximum 2. 7-day Rolling Average of Daily Maximum
Excess Thermal Load (BBNC) (51405)		Million kcal/day	Year-round	Weekly	Calculation (See note g)	1. Maximum 7-day Rolling Average
Excess Thermal Load (TMDL based) (51405)		Million kcal/day	Year-round	Weekly	Calculation (See note g, h)	1. Maximum 7-day Rolling Average
Oil and Grease (84066)		No/Yes	Year-round	Weekly	Visual (See note i)	1. Value



Notes:

- a. For any continuous monitoring, in the event of equipment failure or loss, the registrant must notify DEQ and deploy new equipment to minimize interruption of data collection. If new equipment cannot be immediately deployed, the registrant must perform grab measurements. If the failure or loss is for continuous temperature monitoring equipment, the registrant must perform grab measurements daily between 12 PM and 5 PM until continuous monitoring equipment is redeployed.
- b. When submitting DMRs electronically, all data used to determine summary statistics must be submitted in a DEQ-approved format as a spreadsheet via electronic reporting unless otherwise directed by DEQ.
- c. Flow may be monitored as a weekly total. Calculate daily flow in MGD by using the weekly total flow divided by the days of operation that week. The Daily Maximum flow is the largest calculated daily value. If a week spans two months, the calculated daily value is applied to both months.
- d. A registrant has the option to use continuous monitoring for pH. An applicant must indicate the chosen method of pH sampling and use that method for the duration of permit coverage unless otherwise approved in writing by DEQ. See also requirements for Quality Assurance and Quality Control in Schedule B.2.f and the equipment failure grab sampling requirement in Note a. above.
- e. Total Residual Chlorine sampling is not required for facilities when its application indicates that chlorine is not added or that potable (i.e., chlorinated) water is not used as a source of water or the source water has a total residual chlorine concentration that is less than the Quantitation Limit of 0.05 mg/L.
- f. Temperature reading must be taken on a day that flow is metered/measured.
- g. For results from a grab sample, the excess thermal load (ETL) discharged must be calculated using the daily effluent temperature and the corresponding daily effluent flow (See note c above) using the formula below. The 7-day rolling average is then calculated from the daily ETLs.

The daily ETL is calculated as follows:  $ETL = 3.785 * Q_e * \Delta T$

Where:

ETL = Excess Thermal Load (million kcal/day)

$Q_e$  = Daily Effluent flow (MGD)

$\Delta T = (T_e - T_c)$

$T_e$  = Daily Effluent temperature (°C)

$T_c$  = Ambient temperature criterion based on biologically based numeric criteria (BBNC, °C) or applicable TMDL system potential temperature (°C) contained in a TMDL.

For results from continuous monitoring, the excess thermal load (ETL) must be calculated using the daily maximum effluent temperature and the corresponding daily effluent flow (see note c. above) using the formula below. The 7-day rolling average is then calculated from the daily ETLs.

The daily ETL is calculated as follows:  $ETL = 3.785 * Q_e * \Delta T$

Where:

ETL = Excess Thermal Load (million kcal/day)

$Q_e$  = Daily Effluent flow (MGD)

$\Delta T = (T_e - T_c)$

$T_e$  = Daily Maximum Effluent temperature (°C) from continuous monitoring

$T_c$  = Ambient temperature criterion based on biologically based numeric criteria (BBNC, °C), ambient natural lake criteria (°C) or applicable TMDL system potential temperature (°C) contained in a TMDL.

- h. The excess thermal load is only required for registrants with an applicable WLA in Appendix A.
- i. The registrant must observe the surface of the receiving water in the vicinity of where the effluent enters the surface water at a minimum of once per week. If a visible sheen is observed, take corrective action to stop the sheen. After the corrective action, conduct a follow up observation for a visual sheen and report the results in the next monthly monitoring report.

**Table B5: Effluent Monitoring Requirements for Sump Pump Type Wastewater at a Hydroelectric Facility**

Item or Parameter		Units	Time Period	Minimum Frequency	Sample Type/ Required Action (See note a)	Report Statistic (See note b)
Flow (50050)		MGD	Year-round	Weekly (See note c)	Metered/Measured	1. Daily Maximum
pH (00400)		SU	Year-round	Weekly	Grab	1. Daily Maximum 2. Daily Minimum
pH Continuous Sampling (See note d)	pH (00400)	SU	Year-round	Daily	Continuous	1. Monthly Maximum 2. Monthly Minimum
	pH range excursions, >60 minutes (82581)	Occurrences per month	Year-round	Monthly	Calculation	1. Total
	pH range excursions, monthly total accumulated (82582)	Minutes	Year-round	Monthly	Calculation	1. Total
Chlorine, Total Residual (See note e) (50060)		mg/L	Year-round	Quarterly	Grab	1. Value
Temperature		°C	Year-round	Quarterly	Grab (See note f)	1. Value
Oil and Grease (00556)		mg/L	Year-round	Monthly	Grab	1. Daily Maximum
Oil and Grease (84066)		No/Yes	Year-round	Weekly	Visual	1. Value
Oil and Grease (00556)		mg/L	Year-round	Conditional (See note g)	Grab	1. Daily Maximum

**Notes:**

- a. For any continuous monitoring in the event of equipment failure or loss, the registrant must notify DEQ and deploy new equipment to minimize interruption of data collection. If new equipment cannot be immediately deployed, the registrant must perform grab measurements. If the failure or loss is for continuous temperature monitoring equipment, the registrant must perform grab measurements daily between 12 PM and 5 PM until continuous monitoring equipment is redeployed.
- b. When submitting DMRs electronically, all data used to determine summary statistics must be submitted in a DEQ-approved format as a spreadsheet via electronic reporting unless otherwise directed by DEQ.
- c. Flow may be monitored as a weekly total. Calculate daily flow in MGD by using the weekly total flow divided by the days of operation that week. The Daily Maximum flow is the largest calculated daily value. If a week spans two months, the calculated daily value is applied to both months.
- d. A registrant has the option to use continuous monitoring for pH. An applicant must indicate the chosen method of pH sampling and use that method for the duration of permit coverage unless otherwise approved in writing by DEQ. See also requirements for Quality Assurance and Quality Control in Schedule B.2.f and the equipment failure grab sampling requirement in Note a. above.
- e. Total Residual Chlorine sampling is not required for facilities when its application indicates that chlorine is not added or that potable (i.e., chlorinated) water is not used as a source of water or the source water has a total residual chlorine concentration that is less than the Quantitation Limit of 0.05 mg/L.
- f. Temperature reading must be taken on a day that flow is metered/measured.

Item or Parameter	Units	Time Period	Minimum Frequency	Sample Type/ Required Action (See note a)	Report Statistic (See note b)
g. The registrant must observe the surface of the receiving water in the vicinity of where the effluent enters the surface water at a minimum of once per week. If a visible sheen is observed, take corrective action to stop the sheen. Sample the effluent for oil and grease and report the results in the next monthly monitoring report.					

**7. Additional Monitoring and Reporting**

DEQ may require an applicant or registrant to conduct additional monitoring to ensure that the discharge meets permit limits or does not cause or contribute to a violation of water quality standards.

**8. Emergency Spill Response Plan**

A registrant must have an up-to date spill plan for the prevention and handling of spills and unplanned discharges.

- a. This plan must be available for review during a DEQ inspection.
- b. The spill response plan must include the following:
  - i. A description of the reporting system that will be used to alert responsible managers and legal authorities in the event of a spill.
  - ii. A description of preventative measures and facilities (including an overall facility drawing showing drainage patterns) to prevent, contain, or treat spills.
  - iii. A description of the registrants training program to ensure that employees are properly trained at all times to respond to unplanned and emergency incidents.
  - iv. A description of applicable reporting requirements that are consistent with the reporting requirements contained in Condition 9 below and in Schedule F, Section D5.
- c. A spill plan that meets the obligations in a Section 401 hydropower water quality certification (OAR 340-0048) or Spill Prevention Control and Countermeasures (SPCC) plan in 40 CFR Part 112 may be used to satisfy the required elements of this plan.

**9. Spill Reporting and Recordkeeping**

The registrant must notify Oregon Emergency Response System by calling 1-800-452-0311 within 24 hours of becoming aware of the following circumstances.

- a. The amount of oil or hazardous material spilled or released, or threatening to spill or release, exceeds the reportable quantity established in ORS 466.605 or listed in OAR 340-142-0050, or will exceed a reportable quantity in any 24-hour period. The reportable quantities in OAR 340-142-0050 include, but are not limited to, any quantity of oil that would produce a visible film, sheen, oily slick, oily solids or coat aquatic life, habitat or property with oil.
- b. If any of the above occurs, the registrant must document within 5 days and retain the following information in response to a spill:
  - i. Information provided to Oregon Emergency Response System.
  - ii. Summary of corrective action taken or planned to be taken including the date corrective action was started and the date completed or expected to be completed.

- iii. Any measures taken to prevent the recurrence of a spill or leak or other unpermitted discharge.
- iv. Results of any water quality sampling data.

## **SCHEDULE C: COMPLIANCE SCHEDULE**

There is no compliance schedule in this permit.

## SCHEDULE D1: SPECIAL CONDITIONS FOR INDUSTRIAL FACILITIES

### 1. Outfall Inspection

The registrant must inspect the outfall including the submerged portion of the outfall line to document its integrity and to determine whether it is functioning as designed. The inspection must verify the latitude and longitude of the outfall at its point of discharge into the receiving water.

### 2. Spawning Bed Documentation

As provided in Table A1-1, Note 5, an applicant may provide documentation that impairment of an active salmonid spawning area where spawning redds are located or likely to be located is prevented or minimized. An applicant must use one of the three methods below as the basis for this documentation. For each of these three methods, the assessment of spawning area must be from a fisheries biologist.

- a. An applicant may certify no active salmonid spawning area, where spawning redds are located or likely to be located, is within a distance downstream from any outfall as described in Table D1 below.
- b. An applicant may provide documentation that no active spawning area, where spawning redds are located or likely to be located, is within the regulatory mixing zone, as defined in Schedule A1.3. The mixing zone documentation must include critical plume dilution modelling using 25% of the 7Q10 low flow during the temperature criteria designated spawning period, and total maximum daily design flow ( $Q_{ed}$ ). The mixing zone documentation must be certified by a registered professional engineer.
- c. An applicant may provide documentation that the temperature effect of a discharge does not exceed 0.3°C above the spawning temperature criterion at any active salmonid spawning area downstream, where spawning redds are located or likely to be located. The documentation must contain an analysis using the maximum discharge temperature, total maximum daily design flow ( $Q_{ed}$ ), and 7Q10 low flow stream conditions during the temperature criteria designated spawning period. The documentation must be certified by a registered professional engineer.

**Table D1: Spawning Distance for Industrial Facilities**

7Q10 Receiving stream flow (cfs) during the designated spawning period	Downstream Distance (from outfall) (ft)
1-5	5
6-20	30
21-100	50
101-500	100
500+	500

### 3. Cooling Water Intake Structure

- a. An applicant must obtain an inspection letter from ODFW for its cooling water intake structure, to ensure fish screening technology is in place, or is not necessary.
- b. A registrant shall install, maintain and operate its fish screening consistent with ODFW standards.

#### **4. Land Application of Industrial Water**

To distribute water for reuse, the registrant must develop and maintain a DEQ-approved land application plan.

- a. The registrant must submit this plan and any significant modifications to DEQ for review and approval with sufficient time for DEQ review prior to distribution for land application.
- b. The registrant is prohibited from land application prior to receipt of written approval of its land application plan from DEQ.
- c. The registrant must keep the plan updated. All plan revisions require written authorization from DEQ and are effective upon registrant's receipt of DEQ written approval. No significant modifications can be made to a plan after the permit expiration date.
- d. Land Application Annual Report – The registrant must submit a land application annual report. The registrant must use the DEQ-approved land application annual report form. This report must include the monitoring data and analytical laboratory reports for the previous year's monitoring required under Schedule B.

#### **5. Ambient Natural Lake Temperature**

An applicant with administratively extended permit coverage that is eligible for permit coverage must prepare ambient natural lake monitoring protocol and submit it for DEQ approval within at least one year prior to filing an application for permit coverage. The applicant shall submit its ambient temperature monitoring results with the application.

- a. The monitoring protocol must contain the following information:
  - i. Location and depth of the outfall;
  - ii. Location and depth of the sampling that is representative of the same depth of the outfall location and out of the influence of the outfall discharge;
  - iii. Location and depth of sampling that is representative of depths above the outfall to the surface;
  - iv. Timeframe for sampling that is representative of the mid-month for each month that a discharge occurs;
  - v. Equipment type and calibration procedures. Guidance for NPDES permit monitoring is available at this DEQ web page on Reporting Forms and Other Guidance Documents <https://www.oregon.gov/deq/wq/wqpermits/Pages/Forms.aspx>.
- b. Ambient temperature monitoring results must contain the following information:
  - i. Date, time and temperature monitoring results in degrees Celsius at each location and depth;
  - ii. Average of the temperature monitoring results from the depth of the outfall to the surface in degrees Celsius;
  - iii. Date, time and temperature calibration results in degrees Celsius.

## 6. Downstream Effects Analysis

An applicant proposing to discharge to a receiving water with no fish use designation must prepare a downstream effects analysis and submit it with the application. The documentation must be certified by a registered professional engineer. To obtain permit coverage, a downstream effects analysis must predict that the discharge does not cause or contribute to a temperature water quality criteria exceedance in the next downstream water with a fish use designation.

- a. The downstream effects analysis must use a model or another DEQ approved analysis. Unless approved by DEQ in writing, the modelling approach must consist of two modelled scenarios one without the applicant's point source discharge to the receiving stream and one with point source discharges that includes but is not limited to the following information:
  - i. Flow withdrawal or augmentation, tributary or canal flows, discharge flows;
  - ii. Point source discharge flows and temperature;
  - iii. Temperature data in the receiving water, incoming tributaries and canals.

## SCHEDULE D2: SPECIAL CONDITIONS FOR HYDROELECTRIC FACILITIES

### 1. Spawning Bed Documentation

As provided in Table A2-1, Note 4, an applicant may provide documentation that impairment of an active salmonid spawning area where spawning redds are located or likely to be located is prevented or minimized. An applicant must use one of the three methods below as the basis for this documentation. For each of these three methods, the assessment of spawning area must be from a fisheries biologist.

- a. An applicant may certify no active salmonid spawning area, where spawning redds are located or likely to be located, is within a distance downstream from any outfall as described in Table D2 below.
- b. An applicant may provide documentation that no active spawning area, where spawning redds are located or likely to be located, is within the regulatory mixing zone, as defined in Schedule A2.4. The mixing zone documentation must include critical plume dilution modelling using 25% of the 7Q10 low flow during the temperature criteria designated spawning period, and total maximum daily design flow ( $Q_{ed}$ ). The mixing zone documentation must be certified by a registered professional engineer.
- c. An applicant may provide documentation that the temperature effect of a discharge does not exceed  $0.3^{\circ}\text{C}$  above the spawning temperature criterion at any active salmonid spawning area downstream, where spawning redds are located or likely to be located. The documentation must contain an analysis using the maximum discharge temperature, total maximum daily design flow ( $Q_{ed}$ ), and 7Q10 low flow stream conditions during the temperature criteria designated spawning period. The documentation must be certified by a registered professional engineer.



**Table D2: Spawning Distance for Hydroelectric Facilities**

<b>7Q10 Receiving stream flow (cfs) during the designated spawning period</b>	<b>Downstream Distance (from outfall) (ft)</b>
1-5	5
6-20	30
21-100	50
101-500	100
500+	500

**2. Cooling Water Intake Structure**

- a. An applicant must provide a FERC license or Biological Opinion, as well as any biological opinion issued in conjunction with the FERC license.
- b. Documentation in D2.a. above must address one or more of the four factors under EPA’s July 2022 *Revised Framework for Considering Existing Hydroelectric Facility Technologies in Establishing Case-by-Case, Best Professional Judgment Clean Water Act § 316(b) NPDES Permit Conditions* listed below.
  - i. Volume of cooling water used relative to other power generation facilities and relative to total water use at the facility
  - ii. Cooling water withdrawn relative to waterbody flow
  - iii. Location of the intake structure
  - iv. Technologies at the facility
- c. An applicant must provide additional cooling water intake structure information to satisfy the BTA requirement, if requested by DEQ.
- d. Any applicant that needs to take additional measures to satisfy CWIS BTA requirements will be denied coverage under this permit.

**3. Oil and Grease Best Management Practices Plan and Environmentally Acceptable Lubricants**

- a. The registrant must properly operate and maintain all systems of treatment and control (and related appurtenances) that are installed or used to achieve compliance with oil and grease and visible sheen limits.
- b. The registrant must develop and implement a plan that establishes practices and procedures to prevent, minimize or eliminate the discharge of oil and grease.
  - i. The plan must be consistent with the objectives listed in the general guidance contained in the publication entitled “Guidance Manual for Developing Best Management Practices” (EPA -833-93-004, 1993) and any subsequent revisions to this guidance document.
  - ii. The plan must include a schematic of all equipment that have oil to water interfaces or, in lieu of a schematic, a table of oil sources together with drainage drawings showing potential pathways for oil to reach water.

- iii. The plan must include a section on Environmentally Acceptable Lubricants in use and planned for use at the facility. The characterization of lubricants should be consistent with definitions in EPA's 2011 report, *Environmentally Acceptable Lubricants*.
- iv. The plan must be updated whenever there is a change in EALs, design, construction, or maintenance at the facility, which has a significant potential for the discharge of pollutants.
- v. The plan must be signed and retained onsite.
- vi. The plan must be available if requested by DEQ.

#### **4. Debris from Trash Racks**

When material is removed from the trash rack, the registrant must properly dispose of that material.

## **SCHEDULE E: PRETREATMENT**

There is no pretreatment schedule in this permit.

## **SCHEDULE F: NPDES GENERAL CONDITIONS**

### **NPDES GENERAL CONDITIONS – INDUSTRIAL FACILITIES**

July 31, 2016 Version

#### **SECTION A. STANDARD CONDITIONS**

##### **A1. 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 DEQ to terminate, modify and reissue, revoke, or deny renewal of a permit.

##### **A2. 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 of 33 USC § 1365. DEQ enforcement is generally based on provisions of state statutes and Environmental Quality Commission (EQC) rules, and EPA enforcement is generally based on provisions of federal statutes and EPA regulations.

ORS 468.140 allows DEQ to impose civil penalties up to \$25,000 per day for violation of a term, condition, or requirement of a permit.

Under ORS 468.943, unlawful water pollution in the second degree, is a Class A misdemeanor and 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.

Under ORS 468.946, unlawful water pollution in the first degree is a Class B felony and is punishable by a fine of up to \$250,000, imprisonment for not more than 10 years, or both.

The Clean Water Act provides that any person who violates permit condition, or any requirement imposed in a pretreatment program approved under sections 402(a)(3) or 402(b)(8) of the Act, is subject to a civil penalty not to exceed \$25,000 per day for each violation.

The Clean Water Act provides that any person who negligently violates any condition, or any requirement imposed in a pretreatment program approved under section 402(a)(3) or 402(b)(8) of the Act, is subject to criminal penalties of \$2,500 to \$25,000 per day of violation, or imprisonment of not more than 1 year, or both.

In the case of a second or subsequent conviction for a negligent violation, a person shall be subject to criminal penalties of not more than \$50,000 per day of violation, or by imprisonment of not more than 2 years, or both.

Any person who knowingly violates such sections, or such conditions or limitations is subject to criminal penalties of \$5,000 to \$50,000 per day of violation, or imprisonment for not more than 3 years, or both.

In the case of a second or subsequent conviction for a 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.

Any person who knowingly violates section any permit condition, and who knows at that time that he thereby places another person in imminent danger of death or serious bodily injury, shall, upon conviction, be subject to a fine of not more than \$250,000 or imprisonment of not more than 15 years, or both.

In the case of a second or subsequent conviction for a knowing endangerment violation, a person shall be subject to a fine of not more than \$500,000 or by imprisonment of not more than 30 years, or both.

An organization, as defined in section 309(c)(3)(B)(iii) of the CWA, shall, upon conviction of violating the imminent danger provision, be subject to a fine of not more than \$1,000,000 and can be fined up to \$2,000,000 for second or subsequent convictions.

Any person may be assessed an administrative penalty by the Administrator for violating any permit condition or limitation implementing any of such sections in a permit issued under section 402 of this Act.

Administrative penalties for Class I violations are not to exceed \$10,000 per violation, with the maximum amount of any Class I penalty assessed not to exceed \$25,000.

Penalties for Class II violations are not to exceed \$10,000 per day for each day during which the violation continues, with the maximum amount of any Class II penalty not to exceed \$125,000.

#### A3. 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. In addition, upon request of DEQ, 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.

#### A4. 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.

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

#### A5. 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.

A6. 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 federal 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.

A7. 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.

A8. Permit References

Except for effluent standards or prohibitions established under section 307(a) of the federal 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 federal Clean Water Act, all rules and statutes referred to in this permit are those in effect on the date this permit is issued.

A9. Permit Fees

The permittee must pay the fees required by OAR.

**SECTION B. OPERATION AND MAINTENANCE OF POLLUTION CONTROLS**

B1. 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.

B2. 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.

B3. 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 which 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 DEQ may take enforcement action against a permittee for bypass unless:
  - i. Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage;

- ii. 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
  - iii. The permittee submitted notices and requests as required under General Condition B3.c.
- (2) DEQ may approve an anticipated bypass, after considering its adverse effects and any alternatives to bypassing, when DEQ determines that it will meet the three conditions listed above in General Condition B3.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 DEQ 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 D5.

#### B4. 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 B4.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 causes(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 D5, hereof (24-hour notice); and
  - (4) The permittee complied with any remedial measures required under General Condition A3 hereof.
- d. Burden of proof. In any enforcement proceeding the permittee seeking to establish the occurrence of an upset has the burden of proof.

#### B5. 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 federal Clean Water Act effluent discharge pollutant parameter. A single operational upset does not include federal 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.

#### B6. Public Notification of Effluent Violation

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 (for example, public water systems) about the extent and nature of the discharge in accordance with the notification procedures developed under General Condition B7. 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.

**B7. 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 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;
- e. Provide emergency operations; and
- f. Ensure that DEQ is notified of the public notification steps taken.

**B8. 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**

**C1. 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 must be taken, unless otherwise specified, before the effluent joins or is diluted by any other waste stream, body of water, or substance. Monitoring points must not be changed without notification to and the approval of DEQ. Samples must be collected in accordance with requirements in 40 CFR part 122.21 and 40 CFR part 403 Appendix E.

**C2. 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.

**C3. Monitoring Procedures**

Monitoring must be conducted according to test procedures approved under 40 CFR part 136 or, in the case of sludge (biosolids) use and disposal, approved under 40 CFR part 503 unless other test procedures have been specified in this permit.

For monitoring of recycled water with no discharge to waters of the state, monitoring must be conducted according to test procedures approved under 40 CFR part 136 or as specified in the most recent edition of Standard Methods for the Examination of Water and Wastewater unless other test procedures have been specified in this permit or approved in writing by DEQ.

**C4. Penalties for Tampering**

The federal 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.

C5. Reporting of Monitoring Results

Monitoring results must be summarized each month on a discharge monitoring report form approved by DEQ. 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.

C6. Additional Monitoring by the Permittee

If the permittee monitors any pollutant more frequently than required by this permit, using test procedures approved under 40 CFR part 136 or, in the case of sludge (biosolids) use and disposal, approved under 40 CFR part 503 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 (for example, total residual chlorine), only the average daily value must be recorded unless otherwise specified in this permit.

C7. Averaging of Measurements

Calculations for all limitations that require averaging of measurements must utilize an arithmetic mean, except for bacteria which must be averaged as specified in this permit.

C8. Retention of Records

Records of monitoring information required by this permit related to the permittee's sewage sludge use and disposal activities must be retained for a period of at least 5 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 must 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 DEQ at any time.

C9. 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.

C10. Inspection and Entry

The permittee must allow DEQ or EPA 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.

**C11. 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 are not classified as confidential [40 CFR § 122.7(b)].

**SECTION D. REPORTING REQUIREMENTS**

**D1. Planned Changes**

The permittee must comply with OAR 340-052, "Review of Plans and Specifications" and 40 CFR § 122.41(l)(1). Except where exempted under OAR 340-052, 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 DEQ. The permittee must give notice to DEQ as soon as possible of any planned physical alternations or additions to the permitted facility.

**D2. Anticipated Noncompliance**

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

**D3. 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 EQC rules. No permit may be transferred to a third party without prior written approval from DEQ. DEQ 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 § 122.61. The permittee must notify DEQ when a transfer of property interest takes place.

**D4. 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.

**D5. 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 DEQ regional office must be called. Outside of normal business hours, DEQ must be contacted at 1-800-452-0311 (Oregon Emergency Response System).

- a. The following must be included as information that must be reported within 24 hours under this paragraph:
  - (1) Any unanticipated bypass that exceeds any effluent limitation in this permit;
  - (2) Any upset that exceeds any effluent limitation in this permit;
  - (3) Violation of maximum daily discharge limitation for any of the pollutants listed by DEQ in this permit; and
  - (4) Any noncompliance that may endanger human health or the environment.
- b. A written submission must also be provided within 5 days of the time the permittee becomes aware of the circumstances. The written submission must contain:
  - (1) A description of noncompliance and its cause;
  - (2) The period of noncompliance, including exact dates and times;
  - (3) The estimated time noncompliance is expected to continue if it has not been corrected;

- (4) Steps taken or planned to reduce, eliminate and prevent reoccurrence of the noncompliance; and
- (5) Public notification steps taken, pursuant to General Condition B7.

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

**D6. Other Noncompliance**

The permittee must report all instances of noncompliance not reported under General Condition D4 or D5, 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.

**D7. Duty to Provide Information**

The permittee must furnish to DEQ within a reasonable time any information that DEQ may request to determine compliance with the permit or to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit. The permittee must also furnish to DEQ, 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 DEQ, it must promptly submit such facts or information.

**D8. Signatory Requirements**

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

**D9. 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 \$125,000 per violation and up to 5 years in prison per ORS chapter 161. 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 will, 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.

**D10. Changes to Discharges of Toxic Pollutant**

The permittee must notify DEQ 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 § 122.21(g)(7); or
  - (4) The level established by DEQ in accordance with 40 CFR § 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 § 122.21(g)(7); or
  - (4) The level established by DEQ in accordance with 40 CFR § 122.44(f).

#### SECTION E. DEFINITIONS

- E1. *BOD* or *BOD<sub>5</sub>* means five-day biochemical oxygen demand.
- E2. *CBOD* or *CBOD<sub>5</sub>* means five-day carbonaceous biochemical oxygen demand.
- E3. *TSS* means total suspended solids.
- E4. *Bacteria* means but is not limited to fecal coliform bacteria, total coliform bacteria, *Escherichia coli* (*E. coli*) bacteria, and *Enterococcus* bacteria.
- E5. *FC* means fecal coliform bacteria.
- E6. *Total residual chlorine* means combined chlorine forms plus free residual chlorine
- E7. *Technology based permit effluent limitations* means technology-based treatment requirements as defined in 40 CFR § 125.3, and concentration and mass load effluent limitations that are based on minimum design criteria specified in OAR 340-041.
- E8. *mg/l* means milligrams per liter.
- E9. *µg/l* means microgram per liter.
- E10. *kg* means kilograms.
- E11. *m<sup>3</sup>/d* means cubic meters per day.
- E12. *MGD* means million gallons per day.
- E13. *Average monthly effluent limitation* as defined at 40 CFR § 122.2 means the highest allowable average of daily discharges over a calendar month, calculated as the sum of all daily discharges measured during a calendar month divided by the number of daily discharges measured during that month.
- E14. *Average weekly effluent limitation* as defined at 40 CFR § 122.2 means the highest allowable average of daily discharges over a calendar week, calculated as the sum of all daily discharges measured during a calendar week divided by the number of daily discharges measured during that week.
- E15. *Daily discharge* as defined at 40 CFR § 122.2 means the discharge of a pollutant measured during a calendar day or any 24-hour period that reasonably represents the calendar day for purposes of sampling. For pollutants with limitations expressed in units of mass, the daily discharge must be calculated as the total mass of the pollutant discharged over the day. For pollutants with limitations expressed in other units of measurement, the daily discharge must be calculated as the average measurement of the pollutant over the day.
- E16. *24-hour composite sample* means a sample formed by collecting and mixing discrete samples taken periodically and based on time or flow.
- E17. *Grab sample* means an individual discrete sample collected over a period of time not to exceed 15 minutes.
- E18. *Quarter* means January through March, April through June, July through September, or October through December.
- E19. *Month* means calendar month.
- E20. *Week* means a calendar week of Sunday through Saturday.