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Effective Date: DRAFT
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National Pollutant Discharge Elimination System Waste Discharge Permit No. WA0000850

State of Washington
DEPARTMENT OF ECOLOGY
Industrial Section
PO Box 47600
Olympia, WA 98504-7600

In compliance with the provisions of
The State of Washington Water Pollution Control Law
Chapter 90.48 Revised Code of Washington
and
The Federal Water Pollution Control Act
(The Clean Water Act)
Title 33 United States Code, Section 1342 et seq.

WestRock CP, LLC
801 Portland Avenue
Tacoma, Washington 98421

is authorized to discharge in accordance with the Special and General Conditions that follow.

Facility Location: 801 Portland Avenue Tacoma,
WA 98421

SIC Code: 2621 (Paper Mill), 2611 (Pulp Mill),
2631 (Paperboard Mill)

Treatment Type: Secondary

NAICS Code: 322110, 322121, 322130

Industry Type: Pulp and Paper Mill

Receiving Water: Inner Commencement Bay

Categorical Industry: 40 CFR Part 430 Subparts
B, C, J

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Summary of Permit Report Submittals

Refer to the Special and General Conditions of this permit for additional submittal requirements.

Table 1 Summary of Permit Report Submittals

Permit Section	Submittal	Frequency	First Submittal Date
S3.A	Discharge Monitoring Report (DMR) for Monthly Sampling	Monthly	Enter a specific date
S3.A	Discharge Monitoring Report (DMR) for Quarterly Sampling	Quarterly	Enter specific dates
S3.A	Discharge Monitoring Report (DMR) for Annual Sampling	Annual	Enter a specific date
S3.A	DMR - Priority Pollutant Data - Single Sample Data	Annually	Enter a specific date
S3.F	Reporting Permit Violations	As necessary	N/A
S4.A	Operations and Maintenance Manual	1/permit cycle	Enter a specific date (within 180 days of permit effective date)
S4.A	Operations and Maintenance Manual Update or Review Confirmation Letter	As necessary	N/A
S4.A	Treatment System Operating Plan	1/permit cycle	Enter a specific date (within 180 days of permit effective date)
S4.B	Reporting Bypasses	As necessary	N/A
S5.C	Solid Waste Control Plan	1/permit cycle	Enter a specific date (one year prior from permit expiration date).
S5.C	Modification to Solid Waste Plan	As necessary	N/A
S6	Application for Permit Renewal	1/permit cycle	Enter a specific date (one year prior to permit expiration date)
S7	Non-Routine and Unanticipated Discharges	As necessary	N/A

Permit Section	Submittal	Frequency	First Submittal Date
S8	Spill Plan	1/permit cycle, updates submitted as necessary	Enter a specific date (within 180 days of permit effective date)
S9	Stormwater Best Management Practices Plan	1/permit cycle	Enter a specific date (within 1 year of permit effective date)
S9	Stormwater Wet Season Inspection	Annually	Enter a specific date (September 1 st after submission of best management practices plan)
S10	Best Management Practices Submission	1/permit cycle	Enter a specific date (within 180 days of permit effective date)
S10	Best Management Practices Annual Report	Annually	Enter a specific date (within 1 year of permit effective date)
S11	Receiving Water Sampling and Quality Assurance Plan	1/permit cycle	Enter a specific date (within 24 months from permit effective date)
S11	Receiving Water Study Results	1/permit cycle	Enter a specific date (1 year prior from permit effective date)
S12.A	Sediment Sampling and Analysis Plan	1/permit cycle	October 1, 2023
S12.B	Sediment Data Report	1/permit cycle	6 months from the end of sampling
S13	Outfall Evaluation	1/3 years	Enter specific date (24 months from permit effective date)
S14.C	Acute Toxicity: Compliance Monitoring Reports	Quarterly	Enter specific dates included in Special Condition
S14.D	Acute Toxicity: Response to noncompliance reporting	As necessary	N/A
S14.D	Acute Toxicity: TI/TRE Plan	As necessary	N/A

Permit Section	Submittal	Frequency	First Submittal Date
S15.A	Chronic Toxicity Effluent Test Results	Once in last winter and once in last summer prior to submission of application for permit renewal	Within 45 days from sampling
S.16	Annual Biocide Certification	Annually	Enter specific dates (9 months from permit effective date)
S. 18	Cooling Water Intake Structure Operation and Maintenance Manual	1/permit cycle	Enter specific date one year from permit effective date
S.18	Notice of Change to Cooling Water Intake Structure design through-screen velocity or location	As necessary	N/A
S.18	Annual Certification Statement and Report for Cooling Water Intake Structure	Annually	Insert date one year from permit effective date
G1	Notice of Change in Authorization	As necessary	N/A
G4	Permit Application for Substantive Changes to the Discharge	As necessary	N/A
G5	Engineering Report for Construction or Modification Activities	As necessary	N/A
G7	Notice of Permit Transfer	As necessary	N/A
G10	Duty to Provide Information	As necessary	N/A
G21	Compliance Schedules	As necessary	N/A

Special Conditions

S1. Discharge Limits

S1.A. Process Wastewater Discharges

All discharges and activities authorized by this permit must be consistent with the terms and conditions of this permit.

The discharge of any of the following pollutants more frequently than, or at a level in excess of that identified and authorized by this permit violates the terms and conditions of this permit.

The Permittee is authorized to discharge treated process water, stormwater, and non-contact cooling water to the Inner Commencement Bay through Outfall 001. The Permittee is subject to limits at two internal monitoring points in addition to Outfall 001. A list of monitoring points for which there are applicable limits and their respective Monitoring Point Code (MPC) used in Ecology’s Water Quality Permitting Portal is included below. Further description of the monitoring point location is included if necessary.

- Secondary Clarifier Effluent (MPC: 001C): Effluent from the secondary clarifiers, prior to mixing with non-contact cooling water.
- Bleach Plant Effluent (MPC: BLCH)
- Outfall 001 (MPC: 001): The combination of the effluent from the secondary clarifiers, mixed with non-contact cooling water. This is the final monitoring point prior to effluent being discharged to the Inner Commencement Bay though Outfall 001.

Beginning on the effective date of this permit, the Permittee must comply with the following limits at the specified monitoring points:

Table 2 Effluent Limits: Secondary Clarifier Effluent (MPC 001C)

Parameter	Average Monthly ^a	Maximum Daily ^b
Biochemical Oxygen Demand (5-day) (BOD ₅)	8,797 lbs/day	16,816 lbs/day
Total Suspended Solids (TSS)	15,074 lbs/day	29,238 lbs/day
Absorbable Organic Halides (AOX)	563 lbs/day	860 lbs/day
Parameter	Minimum	Maximum
pH ^c	5.8 standard units	9.0 standard units

Table 3 Effluent Limits: Bleach Plant Effluent (MPC BLCH)

Parameter	Average Monthly ^a	Maximum Daily ^b
Chloroform	3.74 lbs/day	6.27 lbs/day

Parameter	Average Monthly ^a	Maximum Daily ^b
2,3,7,8-TCDD	N/A	< 10 pg/L ^e
2,3,7,8-TCDF	N/A	31.9 pg/L
Trichlorosyringol	N/A	< 2.5 ug/L ^d
3,4,5-trichlorocatechol	N/A	< 5.0 ug/L ^d
3,4,6-trichlorocatechol	N/A	< 5.0 ug/L ^d
3,4,5-trichloroguaiacol	N/A	< 2.5 ug/L ^d
3,4,6-trichloroguaiacol	N/A	< 2.5 ug/L ^d
4,5,6-trichloroguaiacol	N/A	< 2.5 ug/L ^d
2,4,5-trichlorophenol	N/A	< 2.5 ug/L ^d
2,4,6-trichlorophenol	N/A	< 2.5 ug/L ^d
Tetrachlorocatechol	N/A	< 5.0 ug/L ^d
Tetrachloroguaiacol	N/A	< 5.0 ug/L ^d
2,3,4,6-tetrachlorophenol	N/A	< 2.5 ug/L ^d
Pentachlorophenol	N/A	< 5.0 ug/L ^d

Table 4 Effluent Limits: Outfall 001 (MPC 001)
Latitude 47.268333 Longitude -122.431667

The effluent limit for acute toxicity is:

No acute toxicity detected in a test concentration representing the acute critical effluent concentration (ACEC).

The ACEC means the maximum concentration of effluent during critical conditions at the boundary of the acute mixing zone, defined in Section S1.B of this permit. The ACEC equals 2.9% effluent. See S14 for more information.

Footnotes to Tables 2, 3, and 4

- a. Average monthly effluent limit means the highest allowable average of daily discharges over a calendar month. To calculate the discharge value to compare to the limit, you add the value of each daily discharge measured during a calendar month and divide this sum by the total number of daily discharges measured.
- b. Maximum daily effluent limit is the highest allowable daily discharge. The daily discharge is the average discharge of a pollutant measured during the same 24 hour period each operating day. For pollutants with limits expressed in units of mass, calculate the daily discharge as the total mass of the pollutant discharged over the day. The average daily measurement does not apply to pH or temperature.

- c. When pH is continuously monitored, excursions greater than or equal to 4.8 and less than 5.8, or excursions greater than 9.0 and less than or equal to 10.0 are not to be considered violations if no single excursion exceeds 60 minutes in length and total excursions do not exceed 7 hours and 26 minutes per calendar month. Any excursions below 4.8 and above 10.0 at any time are violations. The excursion must be an unintentional and temporary incident.
- d. This value is the minimum level as specified in 40 CFR 430.01(i) for the particular pollutant. Minimum level is the same as the quantitation level (QL) as defined by Ecology in Appendix A and will be hereafter referred to as such. The Permittee must achieve a QL less than or equal to the value shown for the analysis of this pollutant.
- e. The Permittee must achieve the QL for the analysis for this pollutant as required by Appendix A (5 pg/L). If a concentration greater than the QL is measured, it must be less than 10 pg/L in order to comply with the permit condition.

S1.B. Mixing Zone Authorization

Mixing zone for Outfall 001

The following paragraphs define the maximum boundaries of the mixing zones:

Chronic mixing zone

The mixing zone is a circle with radius of 257 feet (78.33 meters) measured from the center of each discharge port. The mixing zone extends from the bottom to the top of the water column. The concentration of pollutants at the edge of the chronic zone must meet chronic aquatic life criteria and human health criteria.

Acute mixing zone

The acute mixing zone is a circle with radius of 26 feet (7.92 meters) measured from the center of each discharge port. The mixing zone extends from the bottom to the top of the water column. The concentration of pollutants at the edge of the acute zone must meet acute aquatic life criteria.

Table 5 Available Dilution (dilution factor) ^a

Criteria	Factor
Acute Aquatic Life Criteria	35
Chronic Aquatic Life Criteria	47
Human Health Criteria - Carcinogen	47
Human Health Criteria - Non-carcinogen	47

Footnotes to Table 5

- a. See the fact sheet for the application of these dilution factors to pH.

S2. Monitoring Requirements

S2.A. Monitoring Schedule

The Permittee must monitor in accordance with the following schedule and the requirements specified in Appendix A.

A list of all monitoring points not previously defined in Section S1.A and their respective Monitoring Point Code (MPC) used in Ecology’s Water Quality Permitting Portal is included below. Further description of the monitoring point location is included if necessary.

- Primary Clarifier Influent (MPC:001I): Sampled at the lift station sump.
- Primary Clarifier Effluent/UNOX Influent (MPC:001P): Influent to the UNOX reactor, which includes primary clarifier effluent, and foul condensates.
- Secondary Clarifier Influent/UNOX Effluent (MPC: 001B)
- Sludge (MPC: SLDG): Combined primary, secondary treatment, OCC sludge leaving de-watering presses.
- Non-Contact Cooling Water (MPC: NCCW): Non-contact cooling water, monitored at the effluent of the salt water heat exchanger.
- Tacoma Potable Water (MPC: TPW): Purchased water from the City of Tacoma, monitored prior to being utilized in the process.

Table 6 Primary Clarifier Influent (MPC 001I)

Parameter	Units & Speciation	Minimum Sampling Frequency	Sample Type
Flow ^a	mgd	Continuous ^b	Metered/recorded. Report daily and monthly averages.
TSS ^c	mg/L	Weekly	Composite Sample (24 hour) ^e
TSS	lbs/day	Weekly	Calculated ^f

Table 7 Primary Clarifier Effluent/UNOX Influent (MPC 001P)

Parameter	Units & Speciation	Minimum Sampling Frequency	Sample Type
Flow ^a	mgd	Continuous ^b	Metered/recorded. Report daily and monthly averages.
TSS ^c	mg/L	Weekly	Composite Sample (24 hour) ^e
TSS	lbs/day	Weekly	Calculated ^f

Parameter	Units & Speciation	Minimum Sampling Frequency	Sample Type
BOD ₅ ^c	mg/L	Weekly	Composite Sample (24 hour) ^e
BOD ₅	lbs/day	Weekly	Calculated ^f

Table 8 Bleach Plant Effluent (MPC BLCH)

Parameter	Units & Speciation	Minimum Sampling Frequency	Sample Type
Flow	mgd	Continuous ^b	Metered/recorded. Report daily and monthly averages.
Chloroform	µg/L	Monthly ^d	Composite Sample (Manual) ^g
Chloroform	lbs/day	Monthly ^d	Calculated ^f
2,3,7,8-TCDD	pg/L	Quarterly ^h	Composite Sample (Manual) ^g
2,3,7,8-TCDF	pg/L	Quarterly ^h	Composite Sample (Manual) ^g
Trichlorosyringol	µg/L	Quarterly ^h	Composite Sample (Manual) ^g
3,4,5-trichlorocatechol	µg/L	Quarterly ^h	Composite Sample (Manual) ^g
3,4,6-trichlorocatechol	µg/L	Quarterly ^h	Composite Sample (Manual) ^g
3,4,5-trichloroguaiacol	µg/L	Quarterly ^h	Composite Sample (Manual) ^g
3,4,6-trichloroguaiacol	µg/L	Quarterly ^h	Composite Sample (Manual) ^g
4,5,6-trichloroguaiacol	µg/L	Quarterly ^h	Composite Sample (Manual) ^g
2,4,5-trichlorophenol	µg/L	Quarterly ^h	Composite Sample (Manual) ^g
2,4,6-trichlorophenol	µg/L	Quarterly ^h	Composite Sample (Manual) ^g

Parameter	Units & Speciation	Minimum Sampling Frequency	Sample Type
Tetrachlorocatechol	µg/L	Quarterly ^h	Composite Sample (Manual) ^g
Tetrachloroguaiacol	µg/L	Quarterly ^h	Composite Sample (Manual) ^g
2,3,4,6-tetrachlorophenol	µg/L	Quarterly ^h	Composite Sample (Manual) ^g
Pentachlorophenol	µg/L	Quarterly ^h	Composite Sample (Manual) ^g

Table 9 Sludge (MPC SLDG)^k

Parameter	Units & Speciation	Minimum Sampling Frequency	Sample Type
2,3,7,8-TCDD	ng/kg	Once per year	Grab ⁱ
2,3,7,8-TCDF	ng/kg	Once per year	Grab ⁱ

Table 10 Secondary Clarifier Influent/UNOX Effluent (MPC 001B)

Parameter	Units & Speciation	Minimum Sampling Frequency	Sample Type
TSS ^c	mg/L	Weekly	Composite Sample (24 hour) ^e
TSS	lb/day	Weekly	Calculated ^f

Table 11 Secondary Clarifier Effluent (MPC 001C)

Parameter	Units & Speciation	Minimum Sampling Frequency	Sample Type
Flow ^a	mgd	Continuous ^b	Metered/recorded. Report daily and monthly averages.
pH ^l	standard units	Continuous ^b	Metered/recorded. Report daily minimums and maximums.
Temperature	°F	Continuous ^b	Metered/recorded. Report daily maximums.

Parameter	Units & Speciation	Minimum Sampling Frequency	Sample Type
BOD ₅ ^c	mg/L	4/week	Composite Sample (24 hour) ^e
BOD ₅	lbs/day	4/week	Calculated ^f
TSS ^c	mg/L	4/week	Composite Sample (24 hour) ^e
TSS	lbs/day	4/week	Calculated ^f
AOX	mg/L	4/week	Composite Sample (24 hour) ^e
AOX	lbs/day	4/week	Calculated ^f
Total Residual Chlorine	µg/L	Weekly, while adding hypochlorite to wastewater system ^t	Grab ⁱ
Enterococci ^p	#/100 mL	3x/month ^u (for one year)	Grab ⁱ
Particulate Organic Carbon	mg/L	Monthly (for 36 months) d,j	Composite Sample (24 hour) ^e
Total Organic Carbon	mg/L	Monthly (for 36 months) d,j	Composite Sample (24 hour) ^e
Dissolved Organic Carbon	mg/L	Monthly (for 36 months) d,j	Composite Sample (24 hour) ^e
Ammonia as Nitrogen	mg/L	Monthly (for 36 months) d,j	Composite Sample (24 hour) ^e
Nitrate as Nitrogen	mg/L	Monthly (for 36 months) d,j	Composite Sample (24 hour) ^e
Nitrite as Nitrogen	mg/L	Monthly (for 36 months) d,j	Composite Sample (24 hour) ^e
Total Kjeldahl Nitrogen (filtered and unfiltered)	mg/L	Monthly (for 36 months) d,j	Composite Sample (24 hour) ^e
Total Phosphorus (filtered and unfiltered)	mg/L	Monthly (for 36 months) d,j	Composite Sample (24 hour) ^e

Parameter	Units & Speciation	Minimum Sampling Frequency	Sample Type
Soluble Reactive Phosphorus	mg/L	Monthly (for 36 months) _{d, j}	Composite Sample (24 hour) ^e
Carbonaceous Biochemical Oxygen Demand (5-day)	mg/L	Monthly (for 36 months) _{d, j}	Composite Sample (24 hour) ^e
Alkalinity	mg/L	Monthly (for 36 months) _{d, j}	Composite Sample (24 hour) ^e

Table 12 Final Effluent (MPC 001)

Parameter	Units & Speciation	Minimum Sampling Frequency	Sample Type
Cyanide	µg/L	Once per year	Grab ⁱ
Total Phenolic Compounds	µg/L	Once per year	Grab ⁱ
Priority Pollutants (PP) – Total Metals ^o	µg/L; ng/L for Mercury	Once per year	Composite Sample (24 hour) ^e Grab for Mercury ⁱ
PP – Volatile Organic Compounds	µg/L	Once per year	Grab ⁱ
PP – Acid-extractable Compounds	µg/L	Once per year	Composite Sample (24 hour) ^e
PP – Base-neutral Compounds	µg/L	Once per year	Composite Sample (24 hour) ^e
PP – Dioxin	pg/L	Once per year	Composite Sample (24 hour) ^e
PP – Pesticides/PCBs ^s	µg/L	Once per year	Composite Sample (24 hour) ^e
Beta, total	pCi/L	Quarterly (for 12 quarters) ^{h, q}	Composite Sample (24 hour) ^e
Potassium-40	pCi/L	Quarterly (for 12 quarters) ^{h, q}	Composite Sample (24 hour) ^e
Cesium-137	pCi/L	Annually (for three years) ^r	Composite Sample (24 hour) ^e
Tritium	pCi/L	Annually (for three years) ^r	Composite Sample (24 hour) ^e

Parameter	Units & Speciation	Minimum Sampling Frequency	Sample Type
Strontium-90	pCi/L	Annually (for three years) ^r	Composite Sample (24 hour) ^e
Alpha, Total	pCi/L	Annually (for three years) ^r	Composite Sample (24 hour) ^e
Radium 226, Total	pCi/L	Annually (for three years) ^r	Composite Sample (24 hour) ^e
Radium 228, Total	pCi/L	Annually (for three years) ^r	Composite Sample (24 hour) ^e

Table 13 Whole Effluent Toxicity Testing - Final Effluent (MPC 001)

As specified in Special Conditions S14 and S15

Parameter	Minimum Sampling Frequency	Sample Type
Acute Toxicity Testing	Quarterly ^h	Composite Sample (24 hour) ^e
Chronic Toxicity Testing	Once in last winter and once in last summer prior to submission of application for permit renewal	Composite Sample (24 hour) ^e

Table 14 City of Tacoma Potable Water Intake (MPC TPW)

Parameter	Units & Speciation	Minimum Sampling Frequency	Sample Type
Beta, total	pCi/L	Quarterly (for 12 quarters) ^{h, q}	Composite Sample (24 hour) ^e
Potassium-40	pCi/L	Quarterly (for 12 quarters) ^{h, q}	Composite Sample (24 hour) ^e

Table 15 Non-contact Cooling Water Effluent (MPC NCCW)

Parameter	Units & Speciation	Minimum Sampling Frequency	Sample Type
Flow	mgd	Continuous ^b	Metered/Recorded. Report daily and monthly averages.
Temperature	°F	Continuous ^b	Metered/Recorded. Report daily maximums.

Table 16 Production

Parameter	Units & Speciation	Minimum Sampling Frequency	Sample Type
Production B1 (Subpart B-bleached market pulp)	Machine dry tons (MDT)/day ^m	Continuous ^b	Metered/Recorded. Report daily and monthly averages.
Production B2 (Subpart B-bleached kraft paperboard, coarse paper, & tissue paper)	MDT/day ^m	Continuous ^b	Metered/Recorded. Report daily and monthly averages.
Production C (Subpart C – Unbleached Kraft)	Air dry tons (ADT)/day ⁿ	Continuous ^b	Metered/Recorded. Report daily and monthly averages.
Production J (Paperboard from wastepaper, corrugating medium furnish)	ADT/day ⁿ	Continuous ^b	Metered/Recorded. Report daily and monthly averages.

Table 17 Receiving Water Study

As specified in Special Condition S11.

Parameter	Units & Speciation	Minimum Sampling Frequency	Sample Type
Total Suspended Solids (TSS)	mg/L	See Condition S11	Grab ⁱ
Total Alkalinity (as CaCO ₃)	mg/L	See Condition S11	Grab ⁱ
Total Hardness (as CaCO ₃)	mg/L	See Condition S11	Grab ⁱ
Enterococci	#/100 mL	See Condition S11	Grab ⁱ
Bis(2-ethylhexyl)phthalate	µg/L	See Condition S11	Grab ⁱ
Temperature	°C	See Condition S11	Grab ⁱ
pH	standard units	See Condition S11	Grab ⁱ
Salinity	psu	See Condition S11	Grab ⁱ
Cyanide	µg/L	See Condition S11	Grab ⁱ
Antimony (Total)	µg/L	See Condition S11	Grab ⁱ
Antimony (Dissolved)	µg/L	See Condition S11	Grab ⁱ
Selenium (Total)	µg/L	See Condition S11	Grab ⁱ
Selenium (Dissolved)	µg/L	See Condition S11	Grab ⁱ

Parameter	Units & Speciation	Minimum Sampling Frequency	Sample Type
Thallium (Total)	µg/L	See Condition S11	Grab ⁱ
Thallium (Dissolved)	µg/L	See Condition S11	Grab ⁱ
Beryllium (Total)	µg/L	See Condition S11	Grab ⁱ
Beryllium (Dissolved)	µg/L	See Condition S11	Grab ⁱ
Mercury (Total)	ng/L	See Condition S11	Grab ⁱ
Mercury (Dissolved)	µg/L	See Condition S11	Grab ⁱ
Arsenic (Total)	µg/L	See Condition S11	Grab ⁱ
Arsenic (Dissolved)	µg/L	See Condition S11	Grab ⁱ
Zinc (Total)	µg/L	See Condition S11	Grab ⁱ
Zinc (Dissolved)	µg/L	See Condition S11	Grab ⁱ
Copper (Total)	µg/L	See Condition S11	Grab ⁱ
Copper (Dissolved)	µg/L	See Condition S11	Grab ⁱ
Lead (Total)	µg/L	See Condition S11	Grab ⁱ
Lead (Dissolved)	µg/L	See Condition S11	Grab ⁱ
Silver (Total)	µg/L	See Condition S11	Grab ⁱ
Silver (Dissolved)	µg/L	See Condition S11	Grab ⁱ
Cadmium (Total)	µg/L	See Condition S11	Grab ⁱ
Cadmium (Dissolved)	µg/L	See Condition S11	Grab ⁱ
Nickel (Total)	µg/L	See Condition S11	Grab ⁱ
Nickel (Dissolved)	µg/L	See Condition S11	Grab ⁱ
Chromium (Total)	µg/L	See Condition S11	Grab ⁱ
Chromium (Dissolved)	µg/L	See Condition S11	Grab ⁱ
Hexavalent Chromium (Dissolved)	µg/L	See Condition S11	Grab ⁱ

Table 18 Sediment Study

As specified in Special Condition S12.

Footnotes to Tables 5 through 18

- a. If no flowmeter is on the primary clarifier influent, the flow rate of metered fresh water to the mill can be used. If no flow meter is on the UNOX influent, the sum of the flow rate of metered fresh water to the mill, plus the flow

rate of contact cooling water to the UNOX, plus the flow rate of condensates to the UNOX can be used. If no flow meter is on the secondary effluent, the sum of the metered fresh water to the mill and the contact cooling water to the UNOX plant can be used.

- b. Continuous means uninterrupted except for brief lengths of time for calibration, power failure, or unanticipated equipment repair or maintenance. The time interval for the associated data logger must be no greater than 30 minutes. The Permittee must sample four times a day (or once every six hours) when continuous monitoring is not possible.
- c. Primary Clarifier Influent and Primary Clarifier Effluent/UNOX Influent TSS samples must be taken on the same day. Primary Clarifier Effluent/UNOX Influent BOD₅ samples must be taken on a day that Secondary Clarifier Effluent BOD₅ sample is also taken. Secondary clarifier Influent/UNOX Effluent TSS samples must be taken on the same day that a Secondary Clarifier Effluent TSS sample is taken.
- d. Monthly means once every calendar month.
- e. 24-hour composite means a series of individual samples collected over a 24-hour period into a single container, and analyzed as one sample.
- f. Calculated means figured concurrently with the respective sample, using the following formula: Concentration (in mg/L) X Flow (in MGD) X Conversion Factor (8.34) = lbs/day
- g. The composite sample for the bleach plant effluent must consist of four grab samples collected every 8 hours and composited in the laboratory. The Permittee must include a detailed description of the method used to composite the sample with the first report, and with subsequent reports if the compositing method has been modified. If an automated continuous or grab compositing device is used, the report must include the name of the system and the name of the manufacturer.
- h. Quarterly sampling periods are January through March, April through June, July through September, and October through December. The Permittee must begin quarterly monitoring for the quarter beginning on 1/1/XX 4/1/XX 7/1/XX 10/1/XX and submit results by 4/15/XX, 7/15/XX, 10/15/XX, 1/15/XX. See footnote q for when quarterly monitoring for radionuclides must begin.
- i. Grab means an individual sample collected over a fifteen (15) minute, or less, period.
- j. The Permittee must monitor for nutrients during the first thirty six (36) months of the permit cycle.
- k. Analysis of sludge samples and QA/QC must be conducted in accordance with Method 8290, Polychlorinated Dibenzodioxins (PCDDs) and Polychlorinated Dibenzofurans (PCDFs) by High-Resolution Gas Chromatography/High-Resolution Mass Spectrometry (HRGC/GRMS), SW-846, Test Methods for Evaluating Solid Waste, USEPA, Office of Solid Waste, September, 1994.
- l. The Permittee must report the instantaneous maximum and minimum pH monthly. Do not average pH values. The Permittee must record and report the:
 - Number of minutes the pH value measured greater than or equal to 4.8 and less than 5.8 or greater than 9.0 and less than or equal to 10.0 for each day.
 - Total minutes in the two ranges above for the month.
 - Monthly instantaneous maximum and minimum pH.If multiple excursions occur during the day, note the duration for each excursion in the notation field in the parameter notes.
- m. MDT production shall be measured at the off-the-machine moisture content.
- n. ADT production shall be measured at a 10% moisture content.
- o. Priority Pollutant Scans for Total Metals shall use total recoverable metal laboratory methods for all parameters except for hexavalent chromium. The 40 CFR 136 method for hexavalent chromium measures only its dissolved form.

- p. Sampling shall occur for 12 calendar months. Sampling shall start on 202X (one year from effective date of the permit). The Permittee may discontinue sampling if the first 6 calendar months are non-detect.
- q. For twelve quarters, sample quarterly for total beta activity and potassium-40. The samples collected from the final effluent and intake of potable water from the City of Tacoma must be taken on the same day. The first set of samples must be taken within the first full quarter of calendar year 202X (insert year following conclusion of nutrient monitoring). Analysis must be completed using the methods specified in Appendix A or another method if approved by Ecology.

Per 40 CFR 141.26 (b)(4), the potassium-40 beta activity (in pCi/L) must be calculated by multiplying elemental potassium concentrations (in mg/L) by a factor of 0.82 pCi/mg.
- r. Sample annually beginning in calendar year 20XX (insert year following conclusion of nutrient monitoring). The annual radionuclide samples must coincide with one of the quarterly samples analyzed for beta activity potassium-40. Analysis must be completed using the methods specified in Appendix A or another method if approved by Ecology. Additional radionuclides may be tested by the Permittee if desired. If additional radionuclides are tested, they must be submitted as an attachment to the DMR.
- s. Confirmation criteria must be met for the analysis for these pollutants; the percent difference between the two columns used to confirm the presence of the analyte must be within 50%, or within a lower percentage, if a lower metric is employed by the laboratory performing the analysis. If confirmation criteria cannot be met for a specific analyte, the sample must be rerun and reanalyzed for that specific analyte. If the sample has exceeded the holding time required by the appropriate method, an additional sample must be taken and reanalyzed for that specific sample. For samples for which the confirmation criteria is not met, report the results of the original analysis in the body of the DMR. Include the results from the repeat analysis as an attachment to the DMR.
- t. Analysis must be performed with 15 minutes of taking grab samples. One weekly sample must be taken when hypochlorite is added to the wastewater treatment system four out of seven days of the calendar week. When hypochlorite is not being added, use "M" monitoring code (monitoring is conditional). Sampling shall start on 202X (one year from effective date of the permit).
- u. Samples must be taken on separate calendar weeks.

S2.B. Sampling and Analytical Procedures

Samples and measurements taken to meet the requirements of this permit must represent the volume and nature of the monitored parameters, including representative sampling of any unusual discharge or discharge condition, including bypasses, upsets, and maintenance-related conditions affecting effluent quality.

Sampling and analytical methods used to meet the monitoring requirements specified in this permit must conform to the latest revision of the *Guidelines Establishing Test Procedures for the Analysis of Pollutants* contained in 40 CFR Part 136 (or as applicable in 40 CFR subchapter N [Parts 400–471] or 40 CFR subchapter O [Parts 501-503]) unless otherwise specified in this permit. Ecology may only specify alternative methods for parameters without limits and for those parameters without an EPA approved test method in 40 CFR Part 136.

S2.C. Flow Measurement, Field Measurement, and Continuous Monitoring Devices

The Permittee must:

1. Select and use appropriate flow measurement, field measurement, and continuous monitoring devices and methods consistent with accepted scientific practices.
2. Install, calibrate, and maintain these devices to ensure the accuracy of the measurements is consistent with the accepted industry standard, the manufacturer's recommendation, and approved O&M manual procedures for the device and the wastestream.
3. Calibrate continuous monitoring instruments weekly unless it can demonstrate a longer period is sufficient based on monitoring records. The Permittee:
 - a. May calibrate apparatus for continuous monitoring of dissolved oxygen by air calibration.
 - b. Must calibrate continuous pH measurement instruments according to the manufacturer's requirements.
 - c. Must calibrate continuous chlorine measurement instruments using a grab sample analyzed in the laboratory within 15 minutes of sampling.
4. Calibrate micro-recording temperature devices, known as thermistors, using protocols from Ecology's Quality Assurance Project Plan Development Tool (*Standard Operating Procedures for Continuous Temperature Monitoring of Fresh Water Rivers and Streams Version 1.0 10/26/2011*). This document is available at:
<https://fortress.wa.gov/ecy/publications/documents/1803205.pdf>
Calibration as specified in this document is not required if the Permittee uses recording devices certified by the manufacturer.
5. Use field measurement devices as directed by the manufacturer and do not use reagents beyond their expiration dates.
6. Establish a calibration frequency for each device or instrument in the O&M manual that conforms to the frequency recommended by the manufacturer.
7. Calibrate flow-monitoring devices at a minimum frequency of at least one calibration per year.
8. Maintain calibration records for at least three years.

S2.D. Laboratory Accreditation

The Permittee must ensure that all monitoring data required by Ecology for permit specified parameters is prepared by a laboratory registered or accredited under the provisions of chapter 173-50 WAC, *Accreditation of Environmental Laboratories*. Flow, temperature, settleable solids, conductivity, pH, and internal process control parameters are exempt from this requirement. The Permittee must obtain accreditation for conductivity and pH if it must receive accreditation or registration for other parameters.

S2.E. Request for Reduction in Monitoring

The Permittee may request a reduction of the sampling frequency after twelve (12) months of monitoring. Ecology will review each request and at its discretion grant the request when it reissues the permit or by a permit modification.

The Permittee must:

1. Provide a written request.
2. Clearly state the parameters for which it is requesting reduced monitoring.
3. Clearly state the justification for the reduction.

S3. Reporting and Recording Requirements

The Permittee must monitor and report in accordance with the following conditions. Falsification of information submitted to Ecology is a violation of the terms and conditions of this permit.

S3.A. Discharge Monitoring Reports

The first monitoring period begins on the effective date of the permit (unless otherwise specified). The Permittee must:

1. Summarize, report, and submit monitoring data obtained during each monitoring period on the electronic discharge monitoring report (DMR) form provided by Ecology within the Water Quality Permitting Portal. Include data for each of the parameters tabulated in Special Condition S2 and as required by the form.

Report a value for each day sampling occurred (unless specifically exempted in the permit) and for the summary values (when applicable) included on the electronic form.

To find out more information and to sign up for the Water Quality Permitting Portal go to: <http://ecyapwq/wqwebportal/>

2. Ensure that DMRs are electronically submitted no later than the dates specified below, unless otherwise specified in this permit.
3. Submit DMRs for parameters with the monitoring frequencies specified in S2 (monthly, quarterly, annual, etc.) at the reporting schedule identified below. The Permittee must:
 - a. Submit **monthly** DMRs by the 15th day of the following month.
 - b. Submit **quarterly** DMRs, unless otherwise specified in the permit, by the 15th day of the month following the monitoring period. Quarterly sampling periods are January through March, April through June, July through September, and October through December. The Permittee must submit the first quarterly DMR on ____ for the quarter beginning on 1/1/20XX 4/1/20XX 7/1/20XX 10/1/20XX.
 - c. Submit **semiannual** DMRs, unless otherwise specified in the permit, by July 15 and January 15 of each year. Semiannual sampling periods are January through June, and July through December.

- d. Submit **annual** DMRs, unless otherwise specified in the permit, by January 15 for the previous calendar year. The annual sampling period is the calendar year.
4. Enter the “No Discharge” reporting code for an entire DMR, for a specific monitoring point, or for a specific parameter as appropriate, if the Permittee did not discharge wastewater or a specific pollutant during a given monitoring period.
5. Report single analytical values below detection as “less than the detection level (DL)” by entering < followed by the numeric value of the detection level (e.g. < 2.0) on the DMR. If the method used did not meet the minimum DL and quantitation level (QL) identified in the permit, report the actual QL and DL in the comments or in the location provided.
6. Report single analytical values between the detection level (DL) and the quantitation level (QL) by entering the estimated value, the code for estimated value/below quantitation limit (j) and any additional information in the comments. Submit a copy of the laboratory report as an attachment using WQWebDMR.
7. **Do not** report zero for bacteria monitoring. Report as required by the laboratory method.
8. Calculate and report an arithmetic average value for each day for bacteria if multiple samples were taken in one day.
9. Report the test method used for analysis in the comments if the laboratory used an alternative method not specified in the permit and as allowed in Appendix A or S2.
10. Calculate average values and calculated total values (unless otherwise specified in the permit) using:
 - a. The reported numeric value for all parameters measured between the detection value and the quantitation value for the sample analysis.
 - b. One-half the detection value (for values reported below detection) if the lab detected the parameter in another sample from the same monitoring point for the reporting period.
 - c. Zero (for values reported below detection) if the lab did not detect the parameter in another sample for the reporting period.
11. Report single-sample grouped parameters (for example: priority pollutants, PAHs, pulp and paper chlorophenolics, TTOs) on the WQWebDMR form and include: sample date, concentration detected, detection limit (DL), and laboratory quantitation level (QL).

The Permittee must also submit an electronic copy of the laboratory report as an attachment using WQWebDMR. The contract laboratory reports must also include information on the chain of custody, QA/QC results, and documentation of accreditation for the parameter.

S3.B. Permit Submittals and Schedules

The Permittee must use the Water Quality Permitting Portal – Permit Submittals application (unless otherwise specified in the permit) to submit all other written permit-required reports by the date specified in the permit.

When another permit condition requires submittal of a paper (hard-copy) report, the Permittee must ensure that it is postmarked or received by Ecology no later than the dates specified by this permit. Send these paper reports to Ecology at:

Water Quality Permit Coordinator,
Department of Ecology, Industrial Section
PO Box 47600
Olympia, WA 98504-7600

S3.C. Records Retention

The Permittee must retain records of all monitoring information for a minimum of three (3) years. Such information must include all calibration and maintenance records and all original 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. The Permittee must extend this period of retention during the course of any unresolved litigation regarding the discharge of pollutants by the Permittee or when requested by Ecology.

S3.D. Recording of Results

For each measurement or sample taken, the Permittee must record the following information:

1. The date, exact place, method, and time of sampling or measurement.
2. The individual who performed the sampling or measurement.
3. The dates the analyses were performed.
4. The individual who performed the analyses.
5. The analytical techniques or methods used.
6. The results of all analyses.

S3.E. Additional Monitoring by the Permittee

If the Permittee monitors any pollutant more frequently than required by Special Condition S2 of this permit, then the Permittee must include the results of such monitoring in the calculation and reporting of the data submitted in the Permittee's DMR unless otherwise specified by Special Condition S2.

S3.F. Reporting Permit Violations

The Permittee must take the following actions when it violates or is unable to comply with any permit condition:

1. Immediately take action to stop, contain, and cleanup unauthorized discharges or otherwise stop the noncompliance and correct the problem.
2. If applicable, immediately repeat sampling and analysis. Submit the results of any repeat sampling to Ecology within thirty (30) days of sampling.

a. Immediate Reporting

The Permittee must immediately report to Ecology and the Department of Health, Shellfish Program (at the numbers listed below), all:

Collection system overflows discharging to marine surface waters.

Untreated or partially treated wastewater discharging to marine surface waters, unless approved by Special Condition S4.B.

Southwest Regional Office: 360-407-6300

Department of Health: 360-236-3330 (business hours)

Shellfish Program: 360-789-8962 (after business hours)

b. Twenty-Four-Hour Reporting

The Permittee must report the following occurrences of noncompliance by telephone, to the Ecology permit manager, within 24 hours from the time the Permittee becomes aware of any of the following circumstances:

1. Any noncompliance that may endanger health or the environment, unless previously reported under immediate reporting requirements.
2. Any unanticipated bypass that causes an exceedance of any effluent limit in the permit (See Part S4.B., "Bypass Procedures").
3. Any upset that causes an exceedance of an effluent limit in the permit (See G.15, "Upset").
4. Any violation of a maximum daily or instantaneous maximum discharge limit for any of the pollutants in Section S1.A of this permit.
5. Any overflow prior to the treatment works, whether or not such overflow endangers health or the environment or exceeds any effluent limit in the permit.

This requirement does not include industrial process wastewater overflows to impermeable surfaces which are collected and routed to the treatment works.

c. Report within Five Days

The Permittee must also submit a written report within five days of the time that the Permittee becomes aware of any reportable event under subparts a or b, above. The report must contain:

1. A description of the noncompliance and its cause.
2. The period of noncompliance, including exact dates and times.
3. The estimated time the Permittee expects the noncompliance to continue if not yet corrected.
4. Steps taken or planned to reduce, eliminate, and prevent recurrence of the noncompliance.

5. If the noncompliance involves an overflow prior to the treatment works, an estimate of the quantity (in gallons) of untreated overflow.

d. Waiver of Written Reports

Ecology may waive the written report required in subpart c, above, on a case-by-case basis upon request if the Permittee has submitted a timely oral report.

e. All Other Permit Violation Reporting

The Permittee must report all permit violations, which do not require immediate or within 24 hours reporting, when it submits monitoring reports for S3.A ("Reporting"). The reports must contain the information listed in subpart c, above. Compliance with these requirements does not relieve the Permittee from responsibility to maintain continuous compliance with the terms and conditions of this permit or the resulting liability for failure to comply.

S3.G. Other Reporting

a. Spills of Oil or Hazardous Materials

The Permittee must report a spill of oil or hazardous materials in accordance with the requirements of RCW 90.56.280 and chapter 173-303-145 WAC.

You can obtain further instructions on How to Report a Spill at:

<https://ecology.wa.gov/About-us/Get-involved/Report-an-environmental-issue/Report-a-spill>

b. Failure to Submit Relevant or Correct Facts

Where the Permittee becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application, or in any report to Ecology, it must submit such facts or information promptly.

S3.H. Maintaining a Copy of this Permit

The Permittee must keep a copy of this permit at the facility and make it available upon request to Ecology inspectors.

S4. Operation and Maintenance

The Permittee must, at all times, properly operate and maintain all facilities or systems of treatment and control (and related appurtenances), which are installed to achieve compliance with the terms and conditions of this permit. Proper operation and maintenance also includes keeping a daily operation logbook (paper or electronic), adequate laboratory controls, and appropriate quality assurance procedures. This provision of the permit requires the Permittee to operate backup or auxiliary facilities or similar systems only when the operation is necessary to achieve compliance with the conditions of this permit.

The Permittee must schedule any facility maintenance, which might require interruption of wastewater treatment and degrade effluent quality, during non-critical water quality periods and carry this maintenance out according to the approved O&M manual or as otherwise approved by Ecology.

S4.A. Operations and Maintenance (O&M) Manual

a. O&M Manual Submittal and Requirements

The Permittee must:

1. Update the O&M Manual that meets the requirements of 173-240-150 WAC and submit it to Ecology for approval by Insert Date (within 180 days of permit issuance).
2. Review and update the O&M Manual when changes occur that significantly affect the volume or character of the wastewater processed by the wastewater treatment plant.
3. Confirm this review by letter to Ecology.
4. Keep the approved O&M Manual at the permitted facility.
5. Follow the instructions and procedures of this manual.

b. O&M Manual Components

In addition to the requirements of WAC 173-240-150 the O&M Manual must include:

1. Emergency plans and procedures under WAC 173-240-150(2)(m) shall include emergency procedures for plant shutdown and cleanup in the event of a wastewater system upset or failure.
2. The discussion of the detailed operation of each unit and a description of controls, settings, and recommended settings and fail-safe features under WAC 173-240-150(2)(f) shall include a review of system components which if failed could pollute surface water or could impact human health. Provide a procedure for a routine schedule of checking the function of these components.
3. Maintenance procedures under WAC 173-240-150(2)(g) shall include wastewater system maintenance procedures that contribute to the generation of process wastewater; and
4. Any directions to maintenance staff when cleaning, or maintaining other equipment or performing other tasks which are necessary to protect the operation of the wastewater system (for example, defining maximum allowable discharge rate for draining a tank, blocking all floor drains before beginning the overhaul of a stationary engine).
5. Sampling information under WAC 173-240-150(2)(h) shall include both wastewater sampling protocols and procedures for wastewater treatment plant process monitoring, but also for compliance with the sampling and reporting requirements in the wastewater discharge permit.
6. Minimum staffing adequate to operate and maintain the treatment processes and carry out compliance monitoring required by the permit.

7. Treatment plant process control monitoring schedule.
8. List of chemicals and additives used in the wastewater treatment system, their purpose, where in the wastewater treatment system they are introduced, target dosages, and whether they are fed into the wastewater treatment system on a continual or intermittent basis. Include safety data sheets. Include procedures for monitoring for and minimizing the discharge of chemicals and additives which contain or produce regulated pollutants (i.e., ammonia, total residual chlorine).

c. Treatment System Operating Plan

The Permittee must summarize the following information in the initial chapter of the O&M Manual entitled the "Treatment System Operating Plan." For the purposes of this permit, a Treatment System Operating Plan (TSOP) is a concise summary of specifically defined elements of the O&M Manual.

The Permittee must submit an updated Treatment System Operating Plan to Ecology by Insert Date (within 180 days of this permit's effective date). The Permittee must update and submit this plan, as necessary, to include requirements for any major modifications of the treatment system.

The TSOP must not conflict with the O&M Manual and must include the following information:

1. A baseline operating condition, which describes the operating parameters and procedures, used to meet the effluent limits of S1 at the production levels used in developing these limits.
2. In the event of production rates, which are below the baseline levels used to establish these limits, the plan must describe the operating procedures and conditions needed to maintain design treatment efficiency. The monitoring and reporting must be described in the plan.
3. In the event of an upset, due to plant maintenance activities, severe stormwater events, startups or shut downs, or other causes, the plan must describe the operating procedures and conditions employed to mitigate the upset. The monitoring and reporting must be described in the plan.
4. A description of any regularly scheduled maintenance or repair activities at the facility which would affect the volume or character of the wastes discharged to the wastewater treatment system and a plan for monitoring and treating/controlling the discharge of maintenance-related materials (such as cleaners, degreasers, solvents, etc.).

S4.B. Bypass Procedures

A bypass is the intentional diversion of waste streams from any portion of a treatment facility. This permit prohibits all bypasses except when the bypass is for essential maintenance, as authorized in special condition S4.B.1, or is approved by Ecology as an anticipated bypass following the procedures in S4.B.2.

1. Bypass for essential maintenance without the potential to cause violation of permit limits or conditions.

This permit allows bypasses for essential maintenance of the treatment system when necessary to ensure efficient operation of the system. The Permittee may bypass the treatment system for essential maintenance only if doing so does not cause violations of effluent limits. The Permittee is not required to notify Ecology when bypassing for essential maintenance. However the Permittee must comply with the monitoring requirements specified in special condition S2.B.

2. Anticipated bypasses for non-essential maintenance

Ecology may approve an anticipated bypass under the conditions listed below. This permit prohibits any anticipated bypass that is not approved through the following process.

- a. If a bypass is for non-essential maintenance, the Permittee must notify Ecology, if possible, at least ten (10) days before the planned date of bypass. The notice must contain:
 - A description of the bypass and the reason the bypass is necessary.
 - An analysis of all known alternatives which would eliminate, reduce, or mitigate the potential impacts from the proposed bypass.
 - A cost-effectiveness analysis of alternatives.
 - The minimum and maximum duration of bypass under each alternative.
 - A recommendation as to the preferred alternative for conducting the bypass.
 - The projected date of bypass initiation.
 - A statement of compliance with SEPA.
 - A request for modification of water quality standards as provided for in WAC 173-201A-410, if an exceedance of any water quality standard is anticipated.
 - Details of the steps taken or planned to reduce, eliminate, and prevent recurrence of the bypass.
- b. For probable construction bypasses, the Permittee must notify Ecology of the need to bypass as early in the planning process as possible. The Permittee must consider the analysis required above during the project planning and design process. The project-specific engineering report as well as the plans and specifications must include details of probable construction bypasses to the extent practical. In cases where the Permittee determines the probable need to bypass early, the Permittee must continue to analyze conditions up to and including the construction period in an effort to minimize or eliminate the bypass.
- c. Ecology will determine if the Permittee has met the conditions of special condition S4.B.2 a and b and consider the following prior to issuing a determination letter, an administrative order, or a permit modification as appropriate for an anticipated bypass:

- If the Permittee planned and scheduled the bypass to minimize adverse effects on the public and the environment.
- If the bypass is unavoidable to prevent loss of life, personal injury, or severe property damage. “Severe property damage” means substantial physical damage to property, damage to the treatment facilities which would cause them to become inoperable, or substantial and permanent loss of natural resources which 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.
- If feasible alternatives to the bypass exist, such as:
 - The use of auxiliary treatment facilities.
 - Retention of untreated wastes.
 - Stopping production.
 - Maintenance during normal periods of equipment downtime, but not if the Permittee should have installed adequate backup equipment in the exercise of reasonable engineering judgment to prevent a bypass which occurred during normal periods of equipment downtime or preventative maintenance.
 - Transport of untreated wastes to another treatment facility.

S5. Solid Wastes

S5.A. Solid Waste Handling

The Permittee must handle and dispose of all solid waste material in such a manner as to prevent its entry into state ground or surface water.

S5.B. Leachate

The Permittee must not allow leachate from its solid waste material to enter state waters without providing all known, available, and reasonable methods of treatment, nor allow such leachate to cause violations of the State Surface Water Quality Standards, Chapter 173-201A WAC, or the State Ground Water Quality Standards, Chapter 173-200 WAC. The Permittee must apply for a permit or permit modification as may be required for such discharges to state ground or surface waters.

S5.C. Solid Waste Control Plan

The Permittee must submit all proposed revisions or modifications to the solid waste control plan to Ecology for review and approval at least 30 days prior to implementation. The Permittee must comply with the approved solid waste control plan and any modifications once approved. The Permittee must submit an update of the solid waste control plan by Insert the application for permit renewal date.

S6. Application for Permit Renewal or Modification for Facility Changes

The Permittee must submit an application for renewal of this permit by Insert Date at least one year prior to expiration date.

The Permittee must also submit a new application or addendum at least one hundred eighty (180) days prior to commencement of discharges, resulting from the activities listed below, which may result in permit violations. These activities include any facility expansions, production increases, or other planned changes, such as process modifications, in the permitted facility.

S7. Non-Routine and Unanticipated Wastewater

1. Beginning on the effective date of this permit, the Permittee is authorized to discharge non-routine wastewater or unanticipated wastewater and therefore not listed on the permit application, on a case-by-case basis if approved by Ecology. Prior to any such discharge, the Permittee must contact Ecology and at a minimum provide the following information:
 - a. The proposed discharge location.
 - b. The nature of the activity that will generate the discharge.
 - c. Any alternatives to the discharge, such as reuse, storage, or recycling of the water.
 - d. The total volume of water it expects to discharge.
 - e. The results of the chemical analysis of the water.
 - f. The date of proposed discharge.
 - g. The expected rate of discharge discharged, in gallons per minute.
2. The Permittee must analyze the water for all constituents limited for the discharge and report them as required by subpart 1.e above. The Permittee must also analyze for: hardness and any metals with a water quality standard.

The analysis must also include any parameter deemed necessary by Ecology. All discharges must comply with the effluent limits as established in Special Condition S1 of this permit, water quality standards, and any other limits imposed by Ecology.
3. The Permittee must limit the discharge rate, as referenced in subpart 1.g above, so it will not cause erosion of ditches or structural damage to culverts and their entrances or exits.
4. The discharge cannot proceed until Ecology has reviewed the information provided and has authorized the discharge by letter to the Permittee or by an Administrative Order. Once approved and if the proposed discharge is to a municipal storm drain, the Permittee must obtain prior approval from the municipality and notify it when it plans to discharge.

S8. Spill Control Plan

S8.A. Spill Control Plan Submittals and Requirements

The Permittee must:

1. Submit to Ecology an update to the existing spill control plan by Insert date(within 6 months of effective date).
2. Review the plan at least annually and update the spill plan as needed.
3. Send changes to the plan to Ecology.
4. Follow the plan and any supplements throughout the term of the permit.

S8.B. Spill Control Plan Components

The spill control plan must include the following:

1. A list of all oil and petroleum products and other materials used and/or stored on-site, which when spilled, or otherwise released into the environment, designate as Dangerous Waste (DW) or Extremely Hazardous Waste (EHW) by the procedures set forth in WAC 173-303-070. Include other materials used and/or stored on-site which may become pollutants or cause pollution upon reaching state's waters.
2. A description of preventive measures and facilities (including an overall facility plot showing drainage patterns) which prevent, contain, or treat spills of these materials.
3. A description of the reporting system the Permittee will use to alert responsible managers and legal authorities in the event of a spill.
4. A description of operator training to implement the plan.

The Permittee may submit plans and manuals required by 40 CFR Part 112, contingency plans required by Chapter 173-303 WAC, or other plans required by other agencies, which meet the intent of this section. Approval of the Spill Control Plan with respect to this requirement does not constitute approval of the plans and manuals with respect to the other underlying requirements.

S9. Stormwater Best Management Practices Plan

1. All stormwater runoff must be routed to the process wastewater treatment system and discharged through Outfall 001. Any stormwater runoff from the facility site must be reported within 24 hours and a plan for corrective action submitted within 30 days.
2. The Permittee must develop a Stormwater Best Management Practices (SBMP) Plan. The SBMP Plan must be submitted to Ecology for review and approval no later than insert date one year from the issuance of this permit. At a minimum, the SBMP Plan must include the following information:
 - a. A site map that identifies the following features for stormwater that is collected within the industrial footprint of the facility:
 - i. The scale or the relative distances between significant structures and drainage systems.
 - ii. Significant features.
 - iii. Stormwater drainage and discharge structures.
 - iv. Paved areas and buildings.
 - v. Areas of pollutant contact (actual or potential) associated with specific industrial activities.

- vi. Surface water locations (including wetlands and drainage ditches).
 - vii. Areas of existing and potential soil erosion (in a significant amount).
 - viii. Vehicle maintenance areas.
 - ix. Lands and waters adjacent to the site that may be helpful in identifying discharge points or drainage routes.
- b. Best Management Practices (BMPs): The SBMP Plan must describe all BMPs used to prevent stormwater runoff from leaving the portions of the site where industrial activities occur and discharging directly to any surface waters and those used to minimize contamination of stormwater that is collected and sent to the wastewater treatment system. This shall include good housekeeping of areas which may contribute pollutants to the stormwater or groundwater. The SBMP Plan shall include a schedule/frequency for completing each housekeeping task, based upon activity in the area or observations made during inspections.
- c. Preventive Maintenance: The SBMP shall include BMPs to inspect and maintain the stormwater collection system and other controls that could fail and result in the discharge of untreated stormwater to surface water.
3. The Permittee must conduct at least one stormwater inspection per year following the submission of the SBMP Plan during the wet season (October 1 – April 30). The first inspection must be conducted by insert date here.
- The Permittee must conduct the wet season inspection during a rainfall event and must include an assessment of the stormwater collection system to determine if any maintenance is necessary for proper operation of the system and to determine if the stormwater is being properly collected.
- Any observations of stormwater being discharged off-site without treatment must be noted and corrective action measures must be identified to prohibit future discharges of untreated stormwater. The results of the inspection for each year must be submitted to Ecology by September 1st.
4. The SBMP Plan must be modified whenever there is a change in design, construction, operation, or maintenance at the facility that significantly changes the flow of stormwater on the site so that is no longer collected and treated in the waste water treatment system. The Permittee must provide for implementation of any modifications to the SBMP Plan in a timely manner.

S10. Best Management Practices

The Permittee must, in accordance with 40 CFR 430.03, develop and implement a plan defining Best Management Practices (BMPs) to prevent spills and leaks of spent pulping liquors, turpentine, and soap which may reach the wastewater treatment system and adversely impact the system's performance. The plan must focus on prevention measures as a first priority to insure to the extent possible that leaks or spills do not occur. In the event that a significant leak or spill does occur, the plan must provide, where necessary, for containment and diversions of the regulated substance to protect the integrity of the wastewater treatment system. The BMP plan must conform with the plan requirements set forth in 40 CFR 430.03.

The Permittee must review and update (as necessary) the BMP Plan within 6 months of the effective date of this permit and must submit the plan to Ecology for review through the Water Quality Permitting Portal – Permit Submittals application.

The Permittee must submit an annual report to Ecology by date (first submittal date within 1 year of permit effective date) of each year. The report must meet the requirements of 40 CFR 430.03.

A copy of this plan must be kept at the permitted facility and be made available upon request to Ecology.

S11. Receiving Water Study

The Permittee must collect receiving water information necessary to determine if the effluent has a reasonable potential to cause a violation of the water quality standards. If reasonable potential exists, Ecology will use the study information to calculate effluent limits.

The Permittee must:

1. Submit a sampling and quality assurance plan for Ecology review and approval by Insert date (24 months from permit effective date). Prepare all quality assurance plans in accordance with the guidelines given in *Guidelines for Preparing Quality Assurance Project Plans for Environmental Studies, Ecology Publication 04-03-030*. This document is available at: <https://fortress.wa.gov/ecy/publications/documents/0403030.pdf>. An example plan template is available at the following link: <https://ecology.wa.gov/Asset-Collections/Doc-Assets/About-Us/How-We-Operate/QAPPs-for-grants/QAPP-template>. A checklist is available at the following link: <https://ecology.wa.gov/Asset-Collections/Doc-Assets/About-Us/How-We-Operate/QAPPs-for-grants/QAPP-review-checklist>
2. Conduct all sampling and analysis in accordance with the approved quality assurance project plan and the below requirements, unless otherwise approved by Ecology.
 - a. Locate the receiving water sampling locations outside the zone of influence of the effluent.
 - b. Use sampling station accuracy requirements of ± 20 meters.
 - c. Time the sampling as close as possible to the critical period.
 - d. Follow the clean sampling techniques (Method 1669: *Sampling Ambient Water for Trace Metals at EPA Water Quality Criteria Levels*, EPA Publication No. 821-R-95-034, April 1995).
 - e. Collect at least ten receiving water samples and analyze the samples for total suspended solids, total alkalinity, hardness, enterococci, bis(2-ethylhexyl) phthalate, temperature, pH, salinity, cyanide, and for both the total and dissolved fractions for the following metals: antimony, selenium, thallium, beryllium, arsenic, mercury, zinc, copper, lead, silver, cadmium, nickel, and chromium. Dissolved hexavalent chromium must also be measured.
 - f. Conduct all chemical analysis using the methods and the detection levels identified in Appendix A.
3. Submit data to Ecology's Environmental Information Management System (EIM) (linked below). Data must be submitted to EIM according to the instructions on the EIM website. The data submittal portion of EIM website (linked below) provides information and help on formats and

requirements for submitting tabular data. Specific questions about data submittal may be directed to the EIM Data Coordinator.

- Environmental Information Management System (EIM)
<https://fortress.wa.gov/ecy/eimreporting/default.aspx>
 - Data submittal portion of EIM website
<https://ecology.wa.gov/Research-Data/Data-resources/Environmental-Information-Management-database/EIM-submit-data>
4. Submit the final report, summarizing the results of the study to Ecology by Insert Date (one year prior to permit expiration). The final report must document when the data was successfully loaded into EIM.

Any subsequent sampling and analysis must also meet these requirements. The Permittee may conduct a cooperative receiving water study with other NPDES Permittees discharging in the same vicinity.

S12. Sediment Monitoring

S12.A. Sediment Sampling and Analysis Plan

The Permittee must submit to Ecology for review and approval a sediment sampling and analysis plan for sediment monitoring by October 1st, 2023. The purpose of the plan is to recharacterize sediment (the nature and extent of chemical contamination and biological toxicity) quality in the vicinity of the Permittee's discharge locations.

The Permittee must follow the guidance provided in the *Sediment Cleanup User's Manual, Appendix A: Sampling Guidance for NPDES Permits under the Sediment Management Standards* (Ecology, 2019) or the latest edition. In addition to the Sediment Management Standards chemicals and conventionals, dioxins/furans, resin acids, and guaiacols should be sampled per the February 13, 2017 Ecology memo.

S12.B. Sediment Data Report

Following Ecology approval of the sediment sampling and analysis plan, the Permittee must collect sediments between August 15th and September 30th.

The Permittee must submit to Ecology a sediment data report containing the results of the sediment sampling and analysis no later than six months from the end of the sampling period. The sediment data report must conform to the approved sediment sampling and analysis plan. In addition, the Permittee must follow the guidance provided in the *Sediment Cleanup User's Manual, Appendix A: Sampling Guidance for NPDES Permits under the Sediment Management Standards* (Ecology, 2019) or the latest edition. The report must document when the data was successfully loaded into EIM as required below.

In addition to a sediment data report, submit the sediment chemical and biological data to Ecology's EIM database (linked below). Data must be submitted to EIM according to the

instructions on the EIM website. The data submittal portion of the EIM website (linked below) provides information and help on formats and requirements for submitting tabular data.

- Environmental Information Management System (EIM)
<https://fortress.wa.gov/ecy/eimreporting/default.aspx>
- Data submittal portion of EIM website
<https://ecology.wa.gov/Research-Data/Data-resources/Environmental-Information-Management-database/EIM-submit-data>
- MyEIM tools
<https://ecology.wa.gov/Research-Data/Data-resources/Environmental-Information-Management-database/Using-MyEIM>

In addition to the EIM data submittal, Ecology's MyEIM tools (linked above) must be used to confirm that the submitted data was accurately entered into EIM. Any differences between the MyEIM analytical results and sediment data report must be identified and explained.

S13. Outfall Evaluation

The Permittee must inspect the underwater portion of the outfall line and diffusers in the first eighteen months of the permit to document its integrity and continued function. If conditions allow for a photographic verification, the Permittee must include such verification in the report. By Insert Date (24 months from permit issuance) and every three years thereafter, the Permittee must submit the inspection report to Ecology through the Water Quality Permitting Portal – Permit Submittals application. The Permittee must submit hard-copies of any video files to Ecology as required by Permit Condition S3.B. The Portal does not support submittal of video files.

The inspector must at minimum:

- Assess the physical condition of the outfall pipe, diffuser, and associated couplings.
- Determine the extent of sediment accumulation in the vicinity of the diffuser.
- Ensure diffuser ports are free of obstructions and are allowing uniform flow.
- Confirm physical location (latitude/longitude) and depth (at MLLW) of the diffuser section of the outfall.
- Assess physical condition of the submarine line.
- Assess physical condition of anchors used to secure the submarine line.

S14. Acute Toxicity

S14.A. Effluent Limit for Acute Toxicity

The effluent limit for acute toxicity is:

No acute toxicity detected in a test concentration representing the acute critical effluent concentration (ACEC).

The ACEC means the maximum concentration of effluent during critical conditions at the boundary of the acute mixing zone, defined in Section S1.B of this permit. The ACEC equals 2.9% effluent.

S14.B. Compliance with the Effluent Limit for Acute Toxicity

Compliance with the effluent limit for acute toxicity means the results of the testing specified in Section C show no statistically significant difference in survival between the control and the ACEC.

If the test results show a statistically significant difference in survival between the control and the ACEC, and Ecology has not determined the test result to be anomalous under Section D, and the test is otherwise valid, the result is a violation of the effluent limit for acute toxicity. The Permittee must immediately conduct the additional testing described in Section D.

The Permittee must determine the statistical significance by conducting a hypothesis test at the 0.05 level of significance (Appendix H, EPA/600/4-89/001). If the difference in survival between the control and the ACEC is less than 10%, the Permittee must conduct the hypothesis test at the 0.01 level of significance.

S14.C. Compliance Testing for Acute Toxicity

The Permittee must:

1. Perform the acute toxicity tests with 100% effluent, the ACEC, and a control, or with a full dilution series.
2. Conduct quarterly acute toxicity testing on the final effluent. Testing must begin by Insert Date (normally within sixty (60) days of the permit effective date). Quarters means January through March, April through June, July through September, and October through December.
3. Submit a quarterly written report to Ecology within 45 days of sampling and starting no later than Insert Date (Choose April 30th, July 30th, October 30th, or January 30th). Each subsequent report is due on April 30th, July 30th, October 30th, and January 30th of each year. Further instructions on testing conditions and test report content are in Section E below.
4. The Permittee must perform compliance tests using each of the species and protocols listed below on a rotating basis:

Table 19 Acute Toxicity Tests

Acute Toxicity Tests	Species	Method
Fathead minnow 96-hour static-renewal test	<i>Pimephales promelas</i>	EPA-821-R-02-012
Daphnid 48-hour static test	<i>Ceriodaphnia dubia</i> , <i>Daphnia pulex</i> , OR <i>Daphnia magna</i>	EPA-821-R-02-012
Rainbow trout 96-hour static-renewal test	<i>Oncorhynchus mykiss</i>	EPA-821-R-02-012

S14.D. Response to Noncompliance with the Effluent Limit for Acute Toxicity

If a toxicity test conducted under Section C determines a statistically significant difference in response between the ACEC and the control, using the statistical test described in Section B, the Permittee must begin additional testing within one week from the time of receiving the test results. The Permittee must:

1. Conduct one additional test each week for four consecutive weeks, using the same test and species as the failed compliance test.
2. Test at least five effluent concentrations and a control to determine appropriate point estimates. One of these effluent concentrations must equal the ACEC. The results of the test at the ACEC will determine compliance with the effluent limit for acute toxicity as described in Section B.
3. Return to the original monitoring frequency in Section C after completion of the additional compliance monitoring.

Anomalous test results: If a toxicity test conducted under Section C indicates noncompliance with the acute toxicity limit and the Permittee believes that the test result is anomalous, the Permittee may notify Ecology that the compliance test result may be anomalous. The Permittee may take one additional sample for toxicity testing and wait for notification from Ecology before completing the additional testing.

The Permittee must submit the notification with the report of the compliance test result and identify the reason for considering the compliance test result to be anomalous.

If Ecology determines that the test result was not anomalous, the Permittee must complete all of the additional monitoring required in this section. Or,

If the one additional sample fails to comply with the effluent limit for acute toxicity, then the Permittee must complete all of the additional monitoring required in this section. Or,

If Ecology determines that the test result was anomalous, the one additional test result will replace the anomalous test result for the purpose of determining compliance with the acute toxicity limit.

If all of the additional testing in S14.D.1 complies with the permit limit, the Permittee must submit a report to Ecology on possible causes and preventive measures for the transient

toxicity event, which triggered the additional compliance monitoring. This report must include a search of all pertinent and recent facility records, including:

- Operating records
- Monitoring results
- Inspection records
- Spill reports
- Weather records
- Production records
- Raw material purchases
- Pretreatment records, etc.

If the additional testing in this section shows another violation of the acute toxicity limit, the Permittee must submit a Toxicity Identification/Reduction Evaluation (TI/RE) plan to Ecology within sixty (60) days after the sample date (WAC 173-205-100(2)).

S14.E. Sampling and Reporting Requirements

1. The Permittee must submit all reports for toxicity testing in accordance with the most recent version of Ecology Publication No. WQ-R-95-80, *Laboratory Guidance and Whole Effluent Toxicity Test Review Criteria*. Reports must contain toxicity data, bench sheets, and reference toxicant results for test methods. In addition, the Permittee must submit toxicity test data in electronic format (CETIS export file preferred) for entry into Ecology's database.
2. The Permittee must collect 24-hour composite effluent samples for toxicity testing. The Permittee must cool the samples to 0 - 6 degrees Celsius during collection and send them to the lab immediately upon completion. The lab must begin the toxicity testing as soon as possible but no later than 36 hours after sampling was completed.
3. The laboratory must conduct water quality measurements on all samples and test solutions for toxicity testing, as specified in the most recent version of Ecology Publication No. WQ-R-95-80, *Laboratory Guidance and Whole Effluent Toxicity Test Review Criteria*.
4. All toxicity tests must meet quality assurance criteria and test conditions specified in the most recent versions of the EPA methods listed in Subsection C and the Ecology Publication No. WQ-R-95-80, *Laboratory Guidance and Whole Effluent Toxicity Test Review Criteria*. If Ecology determines any test results to be invalid or anomalous, the Permittee must repeat the testing with freshly collected effluent.
5. The laboratory must use control water and dilution water meeting the requirements of the EPA methods listed in Section A or pristine natural water of sufficient quality for good control performance.
6. The Permittee must conduct whole effluent toxicity tests on an unmodified sample of final effluent.
7. The Permittee may choose to conduct a full dilution series test during compliance testing in order to determine dose response. In this case, the series must have a minimum of five

effluent concentrations and a control. The series of concentrations must include the acute critical effluent concentration (ACEC). The ACEC equals 2.9% effluent.

8. All whole effluent toxicity tests, effluent screening tests, and rapid screening tests that involve hypothesis testing must comply with the acute statistical power standard of 29% as defined in WAC 173-205-020. If the test does not meet the power standard, the Permittee must repeat the test on a fresh sample with an increased number of replicates to increase the power.

S15. Chronic Toxicity

S15.A. Testing when there is no Permit Limit for Chronic Toxicity

The Permittee must:

1. Conduct chronic toxicity testing on final effluent once in the last winter and once in the last summer prior to submission of the application for permit renewal.
2. Submit a written report to Ecology within 45 days of sampling. The Permittee must submit the first report by Insert Date and the second report by Insert Date. Further instructions on testing conditions and test report content are in Section B below.
3. Conduct chronic toxicity testing on a series of at least five concentrations of effluent and a control. This series of dilutions must include the acute critical effluent concentration (ACEC). The ACEC equals 2.9% effluent. The series of dilutions should also contain the chronic critical effluent concentration (CCEC) of 2.1% effluent.
4. Compare the ACEC to the control using hypothesis testing at the 0.05 level of significance as described in Appendix H, EPA/600/4-89/001.
5. Perform chronic toxicity tests with all of the following species and the most recent version of the following methods:

Table 20 Saltwater Chronic Test

Saltwater Chronic Test	Species	Method
Topsmelt survival and growth	<i>Atherinops affinis</i>	EPA/600/R-95/136
Mysid shrimp survival and growth	<i>Americamysis bahia</i> (formerly <i>Mysidopsis bahia</i>)	EPA-821-R-02-014
Oyster/ Mussel Survival and development	<i>Crassostrea gigas</i> / <i>Mytilus</i> sp.	EPA/600/R-95/136

The laboratory must conduct the Pacific oyster and mussel tests in accordance with EPA/600/R-95/136 and the bivalve development test conditions in the most recent version of Ecology Publication No. WQ-R-95-80, *Laboratory Guidance and Whole Effluent Toxicity Test Review Criteria*. The laboratory must use whichever one of the two species that will give a valid result in each particular test.

S15.B. Sampling and Reporting Requirements

1. The Permittee must submit all reports for toxicity testing in accordance with the most recent version of Ecology Publication No. WQ-R-95-80, *Laboratory Guidance and Whole Effluent Toxicity Test Review Criteria*. Reports must contain toxicity data, bench sheets, and reference toxicant results for test methods. In addition, the Permittee must submit toxicity test data in electronic format (CETIS export file preferred) for entry into Ecology's database.
2. The Permittee must collect 24-hour composite effluent samples for toxicity testing. The Permittee must cool the samples to 0 - 6 degrees Celsius during collection and send them to the lab immediately upon completion. The lab must begin the toxicity testing as soon as possible but no later than 36 hours after sampling was completed.
3. The laboratory must conduct water quality measurements on all samples and test solutions for toxicity testing, as specified in the most recent version of Ecology Publication No. WQ-R-95-80, *Laboratory Guidance and Whole Effluent Toxicity Test Review Criteria*.
4. All toxicity tests must meet quality assurance criteria and test conditions specified in the most recent versions of the EPA methods listed in Section C. and the Ecology Publication No. WQ-R-95-80, *Laboratory Guidance and Whole Effluent Toxicity Test Review Criteria*. If Ecology determines any test results to be invalid or anomalous, the Permittee must repeat the testing with freshly collected effluent.
5. The laboratory must use control water and dilution water meeting the requirements of the EPA methods listed in Subsection C. or pristine natural water of sufficient quality for good control performance.
6. The Permittee must conduct whole effluent toxicity tests on an unmodified sample of final effluent.
7. The Permittee may choose to conduct a full dilution series test during compliance testing in order to determine dose response.

In this case, the series must have a minimum of five effluent concentrations and a control. The series of concentrations must include the CCEC and the ACEC. The CCEC and the ACEC may either substitute for the effluent concentrations that are closest to them in the dilution series or be extra effluent concentrations. The CCEC equals 2.1% effluent. The ACEC equals 2.9% effluent.

8. All whole effluent toxicity tests that involve hypothesis testing must comply with the chronic statistical power standard of 39% as defined in WAC 173-205-020. If the test does not meet the power standard, the Permittee must repeat the test on a fresh sample with an increased number of replicates to increase the power.

S16. Annual Biocide Certification

The Permittee must submit to Ecology annually a certification that Pentachlorophenol and Trichlorophenol are not used as biocides. The certification must be submitted through the Water Quality Permitting Portal each year by insert date here (first submittal 9 months from permit effective date).

S17. Dangerous Wastes – Permit by Rule Requirements

The Permittee is authorized to treat dangerous wastes, generated onsite, at the wastewater treatment facility under the permit by rule provisions of Chapter WAC 173-303-802(5). This authorization is limited to the onsite waste streams identified on the permit application as approved by Ecology.

S18. Cooling Water Intake Structure (CWIS)

Pursuant to Section 316(b) of the Clean Water Act, the Permittee must comply with the following requirements to minimize adverse impact by the facility's cooling water intake structure (CWIS).

S18.A. Operations and Maintenance

The Permittee must, at all times, properly operate and maintain the CWIS including any existing technologies currently used to minimize impingement and entrainment.

Report any significant impingement or entrainment events to Ecology within 24 hours consistent with the requirements in Permit Condition S3.F.b.

The Permittee must notify Ecology 60 days prior to any changes which change the design through-screen velocity or location of the CWIS.

The permittee must perform visual inspections (or other type of inspection, as approved by Ecology) at least weekly to ensure that technologies operated to minimize impingement and entrainment are operated to function as designed. Records of weekly inspections must be made available to Ecology upon request.

1. O&M manual submittal and requirements

The permittee must:

- a. Prepare an O&M Manual for the CWIS by insert date one year after permit effective date and submit the Manual to Ecology.
- b. Make the O&M Manual available for review by Ecology as requested.
- c. Keep the O&M Manual at the permitted facility.
- d. Follow the instructions and procedures of this manual.

2. O&M manual components

The O&M Manual must include, at a minimum:

- a. The location, design, construction and capacity of the cooling water infrastructure.
- b. Procedures for cleaning the intake screens to ensure proper operation of the screens.
- c. Procedures for reporting any significant impingement or entrainment to Ecology, as required above.
- d. Procedures for notifying Ecology of planned changes of the CWIS which change the design through-screen velocity of location of the CWIS.
- e. Procedures for performing weekly visual inspections (or other type of inspection, as approved by Ecology).

S18.B. Annual Certification Statement and Report

The Permittee must submit an annual signed certification statement which shall include one of the following:

1. If the information contained in the previous year's annual certification is still pertinent (or, if this is the first submission of the annual signed certification statement, if the information contained in the permit application submitted to Ecology is still pertinent), you may simply state as such in the signed certification statement.
2. If you have substantially modified operation of any unit at your facility that impacts cooling water withdrawals or operation of your cooling water intake structures, you must provide a summary of those changes in the report. In addition, you must submit revisions to the information required at 40 CFR 122.21(r) in your next permit application.

S18.C. Endangered Species Act

Nothing in this permit authorizes take for the purposes of a facility's compliance with the Endangered Species Act per 40 CFR 125.98.

General Conditions

G1. Signatory Requirements

1. All applications submitted to Ecology must be signed and certified.
 - a. In the case of corporations, by a responsible corporate officer. For the purpose of this section, a responsible corporate officer means:
 - A president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision making functions for the corporation, or
 - The manager of one or more manufacturing, production, or operating facilities, provided, the manager is authorized to make management decisions which govern the operation of the regulated facility including having the explicit or implicit duty of making major capital investment recommendations, and initiating and directing other comprehensive measures to assure long-term environmental compliance with environmental laws and regulations; the manager can ensure that the necessary systems are established or actions taken to gather complete and accurate information for permit application requirements; and where authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures.
 - In the case of a partnership, by a general partner.
 - In the case of sole proprietorship, by the proprietor.
 - In the case of a municipal, state, or other public facility, by either a principal executive officer or ranking elected official.

Applications for permits for domestic wastewater facilities that are either owned or operated by, or under contract to, a public entity shall be submitted by the public entity.

2. All reports required by this permit and other information requested by Ecology must be signed by a person described above or by a duly authorized representative of that person. A person is a duly authorized representative only if:

- a. The authorization is made in writing by a person described above and submitted to Ecology.
 - b. The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility, such as the position of plant manager, superintendent, position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters. (A duly authorized representative may thus be either a named individual or any individual occupying a named position.)
3. Changes to authorization. If an authorization under paragraph G1.2, above, is no longer accurate because a different individual or position has responsibility for the overall operation of the facility, a new authorization satisfying the requirements of paragraph G1.2, above, must be submitted to Ecology prior to or together with any reports, information, or applications to be signed by an authorized representative.
 4. Certification. Any person signing a document under this section must make the following certification:

“I certify under penalty of law, that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.”

G2. Right of Inspection and Entry

The Permittee must allow an authorized representative of Ecology, upon the presentation of credentials and such other documents as may be required by law:

1. To enter upon the premises where a discharge is located or where any records must be kept under the terms and conditions of this permit.
2. To have access to and copy, at reasonable times and at reasonable cost, any records required to be kept under the terms and conditions of this permit.
3. To inspect, at reasonable times, any facilities, equipment (including monitoring and control equipment), practices, methods, or operations regulated or required under this permit.
4. To sample or monitor, at reasonable times, any substances or parameters at any location for purposes of assuring permit compliance or as otherwise authorized by the Clean Water Act.

G3. Permit Actions

This permit may be modified, revoked and reissued, or terminated either at the request of any interested person (including the permittee) or upon Ecology’s initiative. However, the permit may only be modified, revoked and reissued, or terminated for the reasons specified in 40 CFR 122.62, 40 CFR 122.64 or WAC 173-220-150 according to the procedures of 40 CFR 124.5.

1. The following are causes for terminating this permit during its term, or for denying a permit renewal application:
 - a. Violation of any permit term or condition.
 - b. Obtaining a permit by misrepresentation or failure to disclose all relevant facts.
 - c. A material change in quantity or type of waste disposal.
 - d. A determination that the permitted activity endangers human health or the environment, or contributes to water quality standards violations and can only be regulated to acceptable levels by permit modification or termination.
 - e. A change in any condition that requires either a temporary or permanent reduction, or elimination of any discharge or sludge use or disposal practice controlled by the permit.
 - f. Nonpayment of fees assessed pursuant to RCW 90.48.465.
 - g. Failure or refusal of the Permittee to allow entry as required in RCW 90.48.090.
2. The following are causes for modification but not revocation and reissuance except when the Permittee requests or agrees:
 - a. A material change in the condition of the waters of the state.
 - b. New information not available at the time of permit issuance that would have justified the application of different permit conditions.
 - c. Material and substantial alterations or additions to the permitted facility or activities which occurred after this permit issuance.
 - d. Promulgation of new or amended standards or regulations having a direct bearing upon permit conditions, or requiring permit revision.
 - e. The Permittee has requested a modification based on other rationale meeting the criteria of 40 CFR Part 122.62.
 - f. Ecology has determined that good cause exists for modification of a compliance schedule, and the modification will not violate statutory deadlines.
 - g. Incorporation of an approved local pretreatment program into a municipality's permit.
3. The following are causes for modification or alternatively revocation and reissuance:
 - a. When cause exists for termination for reasons listed in 1.a through 1.g of this section, and Ecology determines that modification or revocation and reissuance is appropriate.
 - b. When Ecology has received notification of a proposed transfer of the permit. A permit may also be modified to reflect a transfer after the effective date of an automatic transfer (General Condition G7) but will not be revoked and reissued after the effective date of the transfer except upon the request of the new Permittee.

G4. Reporting Planned Changes

The Permittee must, as soon as possible, but no later than one hundred eighty (180) days prior to the proposed changes, give notice to Ecology of planned physical alterations or additions to the permitted facility, production increases, or process modification which will result in:

1. The permitted facility being determined to be a new source pursuant to 40 CFR 122.29(b).
2. A significant change in the nature or an increase in quantity of pollutants discharged.
3. A significant change in the Permittee's sludge use or disposal practices. Following such notice, and the submittal of a new application or supplement to the existing application, along with required engineering plans and reports, this permit may be modified, or revoked and reissued pursuant to 40 CFR 122.62(a) to specify and limit any pollutants not previously limited. Until such modification is effective, any new or increased discharge in excess of permit limits or not specifically authorized by this permit constitutes a violation.

G5. Plan Review Required

Prior to constructing or modifying any wastewater control facilities, an engineering report and detailed plans and specifications must be submitted to Ecology for approval in accordance with chapter 173-240 WAC. Engineering reports, plans, and specifications must be submitted at least one hundred eighty (180) days prior to the planned start of construction unless a shorter time is approved by Ecology. Facilities must be constructed and operated in accordance with the approved plans.

G6. Compliance with Other Laws and Statutes

Nothing in this permit excuses the Permittee from compliance with any applicable federal, state, or local statutes, ordinances, or regulations.

G7. Transfer of this Permit

In the event of any change in control or ownership of facilities from which the authorized discharge emanate, the Permittee must notify the succeeding owner or controller of the existence of this permit by letter, a copy of which must be forwarded to Ecology.

1. Transfers by Modification
Except as provided in paragraph (2) below, this permit may be transferred by the Permittee to a new owner or operator only if this permit has been modified or revoked and reissued under 40 CFR 122.62(b)(2), or a minor modification made under 40 CFR 122.63(d), to identify the new Permittee and incorporate such other requirements as may be necessary under the Clean Water Act.
2. Automatic Transfers
This permit may be automatically transferred to a new Permittee if:
 - a. The Permittee notifies Ecology at least thirty (30) days in advance of the proposed transfer date.
 - b. The notice includes a written agreement between the existing and new Permittees containing a specific date transfer of permit responsibility, coverage, and liability between them.

- c. Ecology does not notify the existing Permittee and the proposed new Permittee of its intent to modify or revoke and reissue this permit. A modification under this subparagraph may also be minor modification under 40 CFR 122.63. If this notice is not received, the transfer is effective on the date specified in the written agreement.

G8. Reduced Production for Compliance

The Permittee, in order to maintain compliance with its permit, must control production and/or all discharges upon reduction, loss, failure, or bypass of the treatment facility until the facility is restored or an alternative method of treatment is provided. This requirement applies in the situation where, among other things, the primary source of power of the treatment facility is reduced, lost, or fails.

G9. Removed Substances

Collected screenings, grit, solids, sludges, filter backwash, or other pollutants removed in the course of treatment or control of wastewaters must not be resuspended or reintroduced to the final effluent stream for discharge to state waters.

G10. Duty to Provide Information

The Permittee must submit to Ecology, within a reasonable time, all information which Ecology may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit or to determine compliance with this permit. The Permittee must also submit to Ecology upon request, copies of records required to be kept by this permit.

G11. Other Requirements of 40 CFR

All other requirements of 40 CFR 122.41 and 40 CFR 122.42 are incorporated in this permit by reference.

G12. Additional Monitoring

Ecology may establish specific monitoring requirements in addition to those contained in this permit by administrative order or permit modification.

G13. Payment of Fees

The Permittee must submit payment of fees associated with this permit as assessed by Ecology.

G14. Penalties for Violating Permit Conditions

Any person who is found guilty of willfully violating the terms and conditions of this permit is deemed guilty of a crime, and upon conviction thereof shall be punished by a fine of up to ten thousand dollars (\$10,000) and costs of prosecution, or by imprisonment in the discretion of the court. Each day upon which a willful violation occurs may be deemed a separate and additional violation.

Any person who violates the terms and conditions of a waste discharge permit may incur, in addition to any other penalty as provided by law, a civil penalty in the amount of up to ten thousand dollars (\$10,000) for every such violation.

Each and every such violation is a separate and distinct offense, and in case of a continuing violation, every day's continuance is deemed to be a separate and distinct violation.

G15. Upset

Definition – “Upset” means an exceptional incident in which there is unintentional and temporary noncompliance with technology-based permit effluent limits because of factors beyond the reasonable control of the Permittee. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation.

An upset constitutes an affirmative defense to an action brought for noncompliance with such technology-based permit effluent limits if the requirements of the following paragraph are met.

A Permittee who wishes to establish the affirmative defense of upset must demonstrate, through properly signed, contemporaneous operating logs, or other relevant evidence that:

1. An upset occurred and that the Permittee can identify the cause(s) of the upset.
2. The permitted facility was being properly operated at the time of the upset.
3. The Permittee submitted notice of the upset as required in Special Condition S3.F.
4. The Permittee complied with any remedial measures required under S3.F of this permit.

In any enforcement action the Permittee seeking to establish the occurrence of an upset has the burden of proof.

G16. Property Rights

This permit does not convey any property rights of any sort, or any exclusive privilege.

G17. Duty to Comply

The Permittee must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the Clean Water Act and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or denial of a permit renewal application.

G18. Toxic Pollutants

The Permittee must comply with effluent standards or prohibitions established under Section 307(a) of the Clean Water Act for toxic pollutants within the time provided in the regulations that establish those standards or prohibitions, even if this permit has not yet been modified to incorporate the requirement.

G19. Penalties for Tampering

The Clean Water Act provides that any person who falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required to be maintained under this permit shall, upon conviction, be punished by a fine of not more than \$10,000 per violation, or by imprisonment for not more than two (2) years per violation, or by both.

If a conviction of a person is for a violation committed after a first conviction of such person under this condition, punishment shall be a fine of not more than \$20,000 per day of violation, or by imprisonment of not more than four (4) years, or by both.

G20. Reporting Requirements Applicable to Existing Manufacturing, Commercial, Mining, and Silvicultural Dischargers

The Permittee belonging to the categories of existing manufacturing, commercial, mining, or silviculture must notify Ecology as soon as they know or have reason to believe:

1. That any activity has occurred or will occur which would result in the discharge, on a routine or frequent basis, of any toxic pollutant which is not limited in this permit, if that discharge will exceed the highest of the following "notification levels:"
 - a. One hundred micrograms per liter (100 µg/L).
 - b. 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.
 - c. Five (5) times the maximum concentration value reported for that pollutant in the permit application in accordance with 40 CFR 122.21(g)(7).
 - d. The level established by the Director in accordance with 40 CFR 122.44(f).
2. That any activity has occurred or will occur which would result in any discharge, on a non-routine or infrequent basis, of a toxic pollutant which is not limited in this permit, if that discharge will exceed the highest of the following "notification levels:"
 - a. Five hundred micrograms per liter (500µg/L).
 - b. One milligram per liter (1 mg/L) for antimony.
 - c. Ten (10) times the maximum concentration value reported for that pollutant in the permit application in accordance with 40 CFR 122.21(g)(7).
 - d. The level established by the Director in accordance with 40 CFR 122.44(f).

G21. Compliance Schedules

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 fourteen (14) days following each schedule date.

Appendix A

List Of Pollutants With Analytical Methods, Detection Limits And Quantitation Levels

The Permittee must use the specified analytical methods, detection limits (DLs) and quantitation levels (QLs) in the following table for permit and application required monitoring unless:

- Another permit condition specifies other methods, detection levels, or quantitation levels.
- The method used produces measurable results in the sample and EPA has listed it as an EPA-approved method in 40 CFR Part 136. If the Permittee uses an alternative method, not specified in the permit and as allowed above, it must report the test method, DL, and QL on the discharge monitoring report or in the required report.

If the Permittee is unable to obtain the required DL and QL in its effluent due to matrix effects, the Permittee must submit a matrix-specific detection limit (MDL) and a quantitation limit (QL) to Ecology with appropriate laboratory documentation.

When the permit requires the Permittee to measure the base neutral compounds in the list of priority pollutants, it must measure all of the base neutral pollutants listed in the table below. The list includes EPA required base neutral priority pollutants and several additional polynuclear aromatic hydrocarbons (PAHs). The Water Quality Program added several PAHs to the list of base neutrals below from Ecology's Persistent Bioaccumulative Toxics (PBT) List. It only added those PBT parameters of interest to Appendix A that did not increase the overall cost of analysis unreasonably.

Ecology added this appendix to the permit in order to reduce the number of analytical "non-detects" in permit-required monitoring and to measure effluent concentrations near or below criteria values where possible at a reasonable cost.

The lists below include conventional pollutants (as defined in CWA section 502(6) and 40 CFR Part 122.), toxic or priority pollutants as defined in CWA section 307(a)(1) and listed in 40 CFR Part 122 Appendix D, 40 CFR Part 401.15 and 40 CFR Part 423 Appendix A, and nonconventionals. 40 CFR Part 122 Appendix D (Table V) also identifies toxic pollutants and hazardous substances which are required to be reported by dischargers if expected to be present. This permit appendix A list does not include those parameters. The list also includes pulp and paper pollutants identified in 40 CFR Part 430 and the dioxin and furan congeners identified using EPA Method 1613.

Table 21 Conventional Pollutants

Pollutant	CAS Number (if available)	Recommended Analytical Protocol	Detection (DL)¹ $\mu\text{g/L}$ Unless specified	Quantitation Level (QL)² $\mu\text{g/L}$ Unless specified
Biochemical Oxygen Demand		SM5210-B		2 mg/L
Biochemical Oxygen Demand, Soluble		SM5210-B ³		2 mg/L
Fecal Coliform		SM 9221E,9222	N/A	Specified in method sample aliquot dependent
Oil and Grease (HEM) (Hexane Extractable Material)		1664 A or B	1,400	5,000
pH		SM4500-H ⁺ B	N/A	N/A
Total Suspended Solids		SM2540-D		5 mg/L

Table 22 NonConventional Pollutants

Pollutant	CAS Number (if available)	Recommended Analytical Protocol	Detection (DL)¹ $\mu\text{g/L}$ Unless specified	Quantitation Level (QL)² $\mu\text{g/L}$ Unless specified
Alkalinity, Total		SM2320-B		5 mg/L as CaCO ₃
Aluminum, Total	7429-90-5	200.8	2.0	10
Ammonia, Total (as N)		SM4500-NH ₃ -B and C/D/E/G/H		20
Barium Total	7440-39-3	200.8	0.5	2.0
BTEX (benzene +toluene + ethylbenzene + m,o,p xylenes)		EPA SW 846 8021/8260	1	2
Boron, Total	7440-42-8	200.8	2.0	10.0
Carbonaceous Biochemical Oxygen Demand (5-day)		SM5210-B		2 mg/L
Chemical Oxygen Demand		SM5220-D		10 mg/L

Pollutant	CAS Number (if available)	Recommended Analytical Protocol	Detection (DL)¹ µg/L Unless specified	Quantitation Level (QL)² µg/L Unless specified
Chloride		SM4500-Cl B/C/D/E and SM4110 B		Sample and limit dependent
Chlorine, Total Residual		SM4500 Cl G		50.0
Cobalt, Total	7440-48-4	200.8	0.05	0.25
Color		SM2120 B/C/E		10 color units
Dissolved Organic Carbon		SM5310-B/C/D		1 mg/L
Dissolved oxygen		SM4500-OC/OG		0.2 mg/L
E.coli		SM 9221B, 9221F, 9223B	N/A	Specified in method - sample aliquot dependent
Enterococci		SM 9230B, 9230C, 9230D	N/A	Specified in method - sample aliquot dependent
Flow		Calibrated device		
Fluoride	16984-48-8	SM4500-F E	25	100
Hardness, Total		SM2340B		200 as CaCO ₃
Iron, Total	7439-89-6	200.7	12.5	50
Magnesium, Total	7439-95-4	200.7	10	50
Manganese, Total	7439-96-5	200.8	0.1	0.5
Molybdenum, Total	7439-98-7	200.8	0.1	0.5
Nitrate + Nitrite Nitrogen (as N)		SM4500-NO ₃ -E/F/H		100
Nitrate Nitrogen (as N)		SM4500-NO ₃ -D		100
Nitrite Nitrogen (as N)		SM4500-NO ₂ - B SM4500-NO ₃ - E/F		100
Nitrogen, Total Kjeldahl (as N)		SM4500-N _{org} B/C and SM4500NH ₃ -B/C/D/EF/G/H		300

Pollutant	CAS Number (if available)	Recommended Analytical Protocol	Detection (DL)¹ µg/L Unless specified	Quantitation Level (QL)² µg/L Unless specified
NWTPH Dx ⁴		Ecology NWTPH Dx	250	250
NWTPH Gx ⁵		Ecology NWTPH Gx	250	250
Particulate Organic Carbon		SM5310-B/C/D		1 mg/L
Phosphorus, Total (as P)		SM 4500 PB followed by SM4500-PE/PF	3	10
Salinity		SM2520-B		3 practical salinity units or scale (PSU or PSS)
Settleable Solids		SM2540 -F		Sample and limit dependent
Soluble Reactive Phosphorus (as P)		SM4500-P E/F/G	3	10
Sulfate (as mg/L SO ₄)		SM4110-B		0.2 mg/L
Sulfide (as mg/L S)		SM4500-S ² F/D/E/G		0.2 mg/L
Sulfite (as mg/L SO ₃)		SM4500-SO3B		2 mg/L
Temperature (max. 7-day avg.)		Analog recorder or Use micro-recording devices known as thermistors		0.2° C
Tin, Total	7440-31-5	200.8	0.3	1.5
Titanium, Total	7440-32-6	200.8	0.5	2.5
Total Coliform		SM 9221B, 9222B, 9223B	N/A	Specified in method - sample aliquot dependent
Total Organic Carbon		SM5310-B/C/D		1 mg/L
Total dissolved solids		SM2540 C		20 mg/L

Table 23 Radionuclides

Pollutants	CAS Number (if available)	Recommended Analytical Protocol	Detection (DL)¹ pCi/L Unless specified	Quantitation Level (QL)² pCi/L Unless specified
Beta, Total	12587-47-2	EPA 900	4 pCi/L	
Cesium-137	10045-97-3	EPA 901	20 pCi/L	
Tritium	10028-17-8	EPA 906	1,000 pCi/L	
Strontium-90	10098-97-2	EPA 905	2 pCi/L	
Potassium-40*	7440-09-7	EPA 200.7, rev 4.4, 1994	0.7 mg/L	2 mg/L
Alpha, Total	12587-46-1	EPA 900	3 pCi/L	
Radium 226, Total	13982-63-3	EPA 903	1 pCi/L	
Radium 228, Total	15262-20-1	EPA 904	1 pCi/L	

* Per 40 CFR 141.26 (b)(4), the potassium particle beta activity (in pCi/L) must be calculated by multiplying elemental potassium concentrations (in mg/L) by a factor of 0.82 pCi/mg.

Priority Pollutants

Table 24 Metals, Cyanide & Total Phenols

Priority Pollutants	PP #	CAS Number (if available)	Recommended Analytical Protocol	Detection (DL)¹ µg/L Unless specified	Quantitation Level (QL)² µg/L Unless specified
Antimony, Total	114	7440-36-0	200.8	0.3	1.0
Arsenic, Total	115	7440-38-2	200.8	0.1	0.5
Beryllium, Total	117	7440-41-7	200.8	0.1	0.5
Cadmium, Total	118	7440-43-9	200.8	0.05	0.25

Priority Pollutants	PP #	CAS Number (if available)	Recommended Analytical Protocol	Detection (DL) ¹ µg/L <i>Unless specified</i>	Quantitation Level (QL) ² µg/L <i>Unless specified</i>
Chromium (hex) dissolved	119	18540-29-9	SM3500-Cr C	0.3	1.2
Chromium, Total	119	7440-47-3	200.8	0.2	1.0
Copper, Total	120	7440-50-8	200.8	0.4	2.0
Lead, Total	122	7439-92-1	200.8	0.1	0.5
Mercury, Total	123	7439-97-6	1631E	0.0002	0.0005
Nickel, Total	124	7440-02-0	200.8	0.1	0.5
Selenium, Total	125	7782-49-2	200.8	1.0	1.0
Silver, Total	126	7440-22-4	200.8	0.04	0.2
Thallium, Total	127	7440-28-0	200.8	0.09	0.36
Zinc, Total	128	7440-66-6	200.8	0.5	2.5
Cyanide, Total	121	57-12-5	335.4	5	10
Cyanide, Weak Acid Dissociable	121		SM4500-CN I	5	10
Cyanide, Free Amenable to Chlorination (Available Cyanide)	121		SM4500-CN G	5	10
Phenols, Total	65		EPA 420.1		50

Table 25 Acid Compounds

Priority Pollutants	PP #	CAS Number (if available)	Recommended Analytical Protocol	Detection (DL) ¹ µg/L <i>Unless specified</i>	Quantitation Level (QL) ² µg/L <i>Unless specified</i>
2-Chlorophenol	24	95-57-8	625.1	3.3	9.9
2,4-Dichlorophenol	31	120-83-2	625.1	2.7	8.1
2,4-Dimethylphenol	34	105-67-9	625.1	2.7	8.1

Priority Pollutants	PP #	CAS Number (if available)	Recommended Analytical Protocol	Detection (DL) ¹ µg/L Unless specified	Quantitation Level (QL) ² µg/L Unless specified
4,6-dinitro-o-cresol (2-methyl-4,6,-dinitrophenol)	60	534-52-1	625.1/1625B	24	72
2,4 dinitrophenol	59	51-28-5	625.1	42	126
2-Nitrophenol	57	88-75-5	625.1	3.6	10.8
4-Nitrophenol	58	100-02-7	625.1	2.4	7.2
Parachlorometa cresol (4-chloro-3-methylphenol)	22	59-50-7	625.1	3.0	9.0
Pentachlorophenol	64	87-86-5	625.1	3.6	10.8
Phenol	65	108-95-2	625.1	1.5	4.5
2,4,6-Trichlorophenol	21	88-06-2	625.1	2.7	8.1

Table 26 Volatile Compounds

Priority Pollutants	PP #	CAS Number (if available)	Recommended Analytical Protocol	Detection (DL) ¹ µg/L Unless specified	Quantitation Level (QL) ² µg/L Unless specified
Acrolein	2	107-02-8	624.1	5	10
Acrylonitrile	3	107-13-1	624.1	1.0	2.0
Benzene	4	71-43-2	624.1	4.4	13.2
Bromoform	47	75-25-2	624.1	4.7	14.1
Carbon tetrachloride	6	56-23-5	624.1/601 or SM6230B	2.8	8.4
Chlorobenzene	7	108-90-7	624.1	6.0	18.0
Chloroethane	16	75-00-3	624/601	1.0	2.0
2-Chloroethylvinyl Ether	19	110-75-8	624.1	1.0	2.0
Chloroform	23	67-66-3	624.1 or SM6210B	1.6	4.8
Dibromochloromethane (chlordibromomethane)	51	124-48-1	624.1	3.1	9.3

Priority Pollutants	PP #	CAS Number (if available)	Recommended Analytical Protocol	Detection (DL) ¹ µg/L <i>Unless specified</i>	Quantitation Level (QL) ² µg/L <i>Unless specified</i>
1,2-Dichlorobenzene	25	95-50-1	624.1	1.9	7.6
1,3-Dichlorobenzene	26	541-73-1	624.1	1.9	7.6
1,4-Dichlorobenzene	27	106-46-7	624.1	4.4	17.6
Dichlorobromomethane	48	75-27-4	624.1	2.2	6.6
1,1-Dichloroethane	13	75-34-3	624.1	4.7	14.1
1,2-Dichloroethane	10	107-06-2	624.1	2.8	8.4
1,1-Dichloroethylene	29	75-35-4	624.1	2.8	8.4
1,2-Dichloropropane	32	78-87-5	624.1	6.0	18.0
1,3-dichloropropene (mixed isomers) (1,2-dichloropropylene) ⁶	33	542-75-6	624.1	5.0	15.0
Ethylbenzene	38	100-41-4	624.1	7.2	21.6
Methyl bromide (Bromomethane)	46	74-83-9	624/601	5.0	10.0
Methyl chloride (Chloromethane)	45	74-87-3	624.1	1.0	2.0
Methylene chloride	44	75-09-2	624.1	2.8	8.4
1,1,2,2-Tetrachloroethane	15	79-34-5	624.1	6.9	20.7
Tetrachloroethylene	85	127-18-4	624.1	4.1	12.3
Toluene	86	108-88-3	624.1	6.0	18.0
1,2-Trans-Dichloroethylene (Ethylene dichloride)	30	156-60-5	624.1	1.6	4.8
1,1,1-Trichloroethane	11	71-55-6	624.1	3.8	11.4
1,1,2-Trichloroethane	14	79-00-5	624.1	5.0	15.0
Trichloroethylene	87	79-01-6	624.1	1.9	5.7
Vinyl chloride	88	75-01-4	624/SM6200B	1.0	2.0

Table 27 Base/Neutral Compounds (Compounds in Bold are Ecology PBTS)

Priority Pollutants	PP #	CAS Number (if available)	Recommended Analytical Protocol	Detection (DL) ¹ µg/L <i>Unless specified</i>	Quantitation Level (QL) ² µg/L <i>Unless specified</i>
Acenaphthene	1	83-32-9	625.1	1.9	5.7
Acenaphthylene	77	208-96-8	625.1	3.5	10.5
Anthracene	78	120-12-7	625.1	1.9	5.7
Benzidine	5	92-87-5	625.1	44	132
Benzyl butyl phthalate	67	85-68-7	625.1	2.5	7.5
Benzo(a)anthracene	72	56-55-3	625.1	7.8	23.4
Benzo(b)fluoranthene (3,4-benzofluoranthene) ⁷	74	205-99-2	610/625.1	4.8	14.4
Benzo(j)fluoranthene⁷		205-82-3	625	0.5	1.0
Benzo(k)fluoranthene (11,12-benzofluoranthene) ⁷	75	207-08-9	610/625.1	2.5	7.5
Benzo(r,s,t)pentaphene		189-55-9	625	1.3	5.0
Benzo(a)pyrene	73	50-32-8	610/625.1	2.5	7.5
Benzo(ghi)Perylene	79	191-24-2	610/625.1	4.1	12.3
Bis(2-chloroethoxy)methane	43	111-91-1	625.1	5.3	15.9
Bis(2-chloroethyl)ether	18	111-44-4	611/625.1	5.7	17.1
Bis(2-chloro-1-methylethyl)Ether (Bis(2-chloroisopropyl)ether) ¹⁰	42	108-60-1	625.1	5.7	17.1
Bis(2-ethylhexyl)phthalate	66	117-81-7	625.1	2.5	7.5
4-Bromophenyl phenyl ether	41	101-55-3	625.1	1.9	5.7
2-Chloronaphthalene	20	91-58-7	625.1	1.9	5.7
4-Chlorophenyl phenyl ether	40	7005-72-3	625.1	4.2	12.6
Chrysene	76	218-01-9	610/625.1	2.5	7.5

Priority Pollutants	PP #	CAS Number (if available)	Recommended Analytical Protocol	Detection (DL) ¹ µg/L Unless specified	Quantitation Level (QL) ² µg/L Unless specified
Dibenzo (a,h)acridine		226-36-8	610M/625M	2.5	10.0
Dibenzo (a,j)acridine		224-42-0	610M/625M	2.5	10.0
Dibenzo(a-h)anthracene (1,2,5,6-dibenzanthracene)	82	53-70-3	625.1	2.5	7.5
Dibenzo(a,e)pyrene		192-65-4	610M/625M	2.5	10.0
Dibenzo(a,h)pyrene		189-64-0	625M	2.5	10.0
3,3-Dichlorobenzidine	28	91-94-1	605/625.1	16.5	49.5
Diethyl phthalate	70	84-66-2	625.1	1.9	5.7
Dimethyl phthalate	71	131-11-3	625.1	1.6	4.8
Di-n-butyl phthalate	68	84-74-2	625.1	2.5	7.5
2,4-dinitrotoluene	35	121-14-2	609/625.1	5.7	17.1
2,6-dinitrotoluene	36	606-20-2	609/625.1	1.9	5.7
Di-n-octyl phthalate	69	117-84-0	625.1	2.5	7.5
1,2-Diphenylhydrazine (as Azobenzene)	37	122-66-7	1625B/625.1	5.0	20
Fluoranthene	39	206-44-0	625.1	2.2	6.6
Fluorene	80	86-73-7	625.1	1.9	5.7
Hexachlorobenzene	9	118-74-1	612/625.1	1.9	5.7
Hexachlorobutadiene	52	87-68-3	625.1	0.9	2.7
Hexachlorocyclopentadiene	53	77-47-4	1625B/625.1	2.0	4.0
Hexachloroethane	12	67-72-1	625.1	1.6	4.8
Indeno(1,2,3-cd)Pyrene	83	193-39-5	610/625.1	3.7	11.1
Isophorone	54	78-59-1	625.1	2.2	6.6
3-Methyl cholanthrene		56-49-5	625	2.0	8.0
Naphthalene	55	91-20-3	625.1	1.6	4.8

Priority Pollutants	PP #	CAS Number (if available)	Recommended Analytical Protocol	Detection (DL) ¹ µg/L <i>Unless specified</i>	Quantitation Level (QL) ² µg/L <i>Unless specified</i>
Nitrobenzene	56	98-95-3	625.1	1.9	5.7
N-Nitrosodimethylamine	61	62-75-9	607/625.1	2.0	4.0
N-Nitrosodi-n-propylamine	63	621-64-7	607/625.1	0.5	1.0
N-Nitrosodiphenylamine	62	86-30-6	625.1	1.0	2.0
Perylene		198-55-0	625	1.9	7.6
Phenanthrene	81	85-01-8	625.1	5.4	16.2
Pyrene	84	129-00-0	625.1	1.9	5.7
1,2,4-Trichlorobenzene	8	120-82-1	625.1	1.9	5.7

Table 28 Dioxin

Priority Pollutant	PP #	CAS Number (if available)	Recommended Analytical Protocol	Detection (DL) ¹ µg/L <i>Unless specified</i>	Quantitation Level (QL) ² µg/L <i>Unless specified</i>
2,3,7,8-Tetra-Chlorodibenzo-P-Dioxin (2,3,7,8 TCDD)	129	1746-01-6	1613B	1.3 pg/L	5 pg/L

Table 29 Pesticides/PCBs

Priority Pollutants	PP #	CAS Number (if available)	Recommended Analytical Protocol	Detection (DL) ¹ µg/L <i>Unless specified</i>	Quantitation Level (QL) ² µg/L <i>Unless specified</i>
Aldrin	89	309-00-2	608.3	4.0 ng/L	12 ng/L
alpha-BHC	102	319-84-6	608.3	3.0 ng/L	9.0 ng/L
beta-BHC	103	319-85-7	608.3	6.0 ng/L	18 ng/L
gamma-BHC (Lindane)	104	58-89-9	608.3	4.0 ng/L	12 ng/L
delta-BHC	105	319-86-8	608.3	9.0 ng/L	27 ng/L
Chlordane ⁸	91	57-74-9	608.3	14 ng/L	42 ng/L

Priority Pollutants	PP #	CAS Number (if available)	Recommended Analytical Protocol	Detection (DL) ¹ µg/L Unless specified	Quantitation Level (QL) ² µg/L Unless specified
4,4'-DDT	92	50-29-3	608.3	12 ng/L	36 ng/L
4,4'-DDE	93	72-55-9	608.3	4.0 ng/L	12 ng/L
4,4' DDD	94	72-54-8	608.3	11ng/L	33 ng/L
Dieldrin	90	60-57-1	608.3	2.0 ng/L	6.0 ng/L
alpha-Endosulfan	95	959-98-8	608.3	14 ng/L	42 ng/L
beta-Endosulfan	96	33213-65-9	608.3	4.0 ng/L	12 ng/L
Endosulfan Sulfate	97	1031-07-8	608.3	66 ng/L	198 ng/L
Endrin	98	72-20-8	608.3	6.0 ng/L	18 ng/L
Endrin Aldehyde	99	7421-93-4	608.3	23 ng/L	70 ng/L
Heptachlor	100	76-44-8	608.3	3.0 ng/L	9.0 ng/L
Heptachlor Epoxide	101	1024-57-3	608.3	83 ng/L	249 ng/L
PCB-1242 ⁹	106	53469-21-9	608.3	0.065	0.195
PCB-1254	107	11097-69-1	608.3	0.065	0.195
PCB-1221	108	11104-28-2	608.3	0.065	0.195
PCB-1232	109	11141-16-5	608.3	0.065	0.195
PCB-1248	110	12672-29-6	608.3	0.065	0.195
PCB-1260	111	11096-82-5	608.3	0.065	0.195
PCB-1016 ⁹	112	12674-11-2	608.3	0.065	0.195
Toxaphene	113	8001-35-2	608.3	240 ng/L	720 ng/L

Table 30 Pulp & Paper Pollutants (40 CFR Part 430)

Pollutant	CAS Number (if available)	Recommended Analytical Protocol	Detection (DL)¹ µg/L Unless specified	Quantitation Level (QL)² µg/L Unless specified
Adsorbable Organic Halides (AOX)		EPA 1650		20
2,3,7,8- Tetrachlorodibenzo-p-dioxin (TCDD) (this is also priority pollutant and is listed above)	1746-01-6	EPA 1613	1.3 pg/L	5 pg/L
2,3,7,8- Tetrachlorodibenzofuran (TCDF)	51207-31-9	EPA 1613	1.3 pg/L	5 pg/L
Trichlorosyringol		EPA 1653		2.5
3,4,5-Trichlorocatechol		EPA 1653		5.0
3,4,6-Trichlorocatechol		EPA 1653		5.0
3,4,5-Trichloroguaiacol		EPA 1653		2.5
3,4,6-Trichloroguaiacol		EPA 1653		2.5
4,5,6-Trichloroguaiacol		EPA 1653		2.5
2,4,5-Trichlorophenol		EPA 1653		2.5
2,4,6-Trichlorophenol		EPA 1653		2.5
Tetrachlorocatechol		EPA 1653		5.0
Tetrachloroguaiacol		EPA 1653		5.0
2,3,4,6-Tetrachlorophenol		EPA 1653		2.5
Pentachlorophenol (this is also priority pollutant and is listed above)		EPA 1653		5.0

Table 31 Nonconventionals – Dioxin & Furan Congeners

Pollutant	CAS Number (if available)	Recommended Analytical Protocol	Detection (DL)¹ µg/L Unless specified	Quantitation Level (QL)² µg/L Unless specified
2,3,7,8- Tetrachlorodibenzo-p-dioxin (TCDD) (this is a priority pollutant and is also listed above)	1746-01-6	EPA 1613	1.3 pg/L	5 pg/L

Pollutant	CAS Number (if available)	Recommended Analytical Protocol	Detection (DL)¹ µg/L Unless specified	Quantitation Level (QL)² µg/L Unless specified
Total TCDD	41903-57-5			
2,3,7,8- Tetrachlorodibenzofuran (TCDF)	51207-31-9		1.3 pg/L	5 pg/L
Total-TCDF	55722-27-5			
1,2,3,7,8- Pentachlorodibenzo-p-dioxin (PeCDD)	40321-76-4			
Total-PeCDD	36088-22-9			
1,2,3,7,8- Pentachlorodibenzofuran (PeCDF)	57117-41-6			
2,3,4,7,8-PeCDF	57117-31-4			
Total-PeCDF	30402-15-4			
1,2,3,4,7,8- Hexachlorodibenzo-p-dioxin (HxCDD)	39227-28-6			
1,2,3,6,7,8-HxCDD	57653-85-7			
1,2,3,7,8,9-HxCDD	19408-74-3			
Total-HxCDD	34465-46-8			
1,2,3,4,7,8- Hexachlorodibenzofuran (HxCDF)	70648-26-9			
1,2,3,6,7,8-HxCDF	57117-44-9			
1,2,3,7,8,9-HxCDF	72918-21-9			
2,3,4,6,7,8-HxCDF	60851-34-5			

Pollutant	CAS Number (if available)	Recommended Analytical Protocol	Detection (DL) ¹ $\mu\text{g/L}$ Unless specified	Quantitation Level (QL) ² $\mu\text{g/L}$ Unless specified
Total-HxCDF	55684-94-1			
1,2,3,4,6,7,8- Heptachlorodibenzo-p-dioxin (HpCDD)	35822-46-9			
Total-HpCDD	37871-00-4			
1,2,3,4,6,7,8- Heptachlorodibenzofuran (HpCDF)	67562-39-4			
1,2,3,4,7,8,9-HpCDF	55673-89-7			
Total-HpCDF	38998-75-3			
Octachlorodibenzo-p-dioxin (OCDD)	3268-87-9			
Octachlorodibenzofuran (OCDF)	39001-02-0			

Analytical Methods

- Detection level (DL)** – or detection limit means the minimum concentration of an analyte (substance) that can be measured and reported with a 99% confidence that the analyte concentration is greater than zero as determined by the procedure given in 40 CFR part 136, Appendix B.
- Quantitation Level (QL)** – also known as Minimum Level of Quantitation (ML) – The lowest level at which the entire analytical system must give a recognizable signal and acceptable calibration point for the analyte. It is equivalent to the concentration of the lowest calibration standard, assuming that the lab has used all method-specified sample weights, volumes, and cleanup procedures. The QL is calculated by multiplying the MDL by 3.18 and rounding the result to the number nearest to $(1, 2, \text{ or } 5) \times 10^n$, where n is an integer. (64 FR 30417).
Also Given As: The smallest detectable concentration of analyte greater than the Detection Limit (DL) where the accuracy (precision & bias) achieves the objectives of the intended purpose. (Report of the Federal Advisory Committee on Detection and Quantitation Approaches and Uses in Clean Water Act Programs Submitted to the US Environmental Protection Agency December 2007).

3. **Soluble Biochemical Oxygen Demand** – method note: First, filter the sample through a Millipore Nylon filter (or equivalent) - pore size of 0.45-0.50 um (prep all filters by filtering 250 ml of laboratory grade deionized water through the filter and discard). Then, analyze sample as per method 5210-B.
4. **Northwest Total Petroleum Hydrocarbons Diesel Extended Range OR NWTPH Dx** –_Analytical Methods for Petroleum Hydrocarbons
<https://fortress.wa.gov/ecy/publications/documents/97602.pdf>
5. **Northwest Total Petroleum Hydrocarbons Gasoline Extended Range OR NWTPH Gx** – Analytical Methods for Petroleum Hydrocarbons
<https://fortress.wa.gov/ecy/publications/documents/97602.pdf>
6. **1, 3-dichloroproylene (mixed isomers)** – You may report this parameter as two separate parameters: cis-1, 3-dichloropropene (10061-01-5) and trans-1, 3-dichloropropene (10061-02-6).
7. **Total Benzofluoranthenes** – Because Benzo(b)fluoranthene, Benzo(j)fluoranthene and Benzo(k)fluoranthene co-elute you may report these three isomers as total benzofluoranthenes.
8. **Chlordane** – You may report alpha-chlordane (5103-71-9) and gamma-chlordane (5103-74-2) in place of chlordane (57-74-9). If you report alpha and gamma-chlordane, the DL/PQLs that apply are 14/42 ng/L.
9. **PCB 1016 & PCB 1242** – You may report these two PCB compounds as one parameter called PCB 1016/1242.
10. **Bis(2-Chloro-1-Methylethyl) Ether** – This compound was previously listed as Bis(2-Chloroisopropyl) Ether (39638-32-9).