



Issuance Date: April 11, 2022
Effective Date: June 1, 2022
Expiration Date: May 31, 2027

**NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM
WASTE DISCHARGE PERMIT NO. WA0000892**

State of Washington
Department of Ecology
Eastern Regional Office
4601 N Monroe Street
Spokane, Washington 99205-1265

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.

**Kaiser Aluminum Washington, LLC
P.O. Box 15108
Spokane Valley, Washington 99215**

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

Facility Location: 15000 E. Euclid Ave Spokane Valley, WA 99215	Receiving Water: Spokane River
Treatment Type: Oil removal, lime addition, settling, and filtration	SIC Code: 3353
Industry Type: Aluminum casting and forming	NAICS Code: 331315
	Categorical Industry: Aluminum Forming (40 CFR Part 467)

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Water Quality Section Manager
Water Quality Program
Washington State Department of Ecology

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Summary of Permit 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)	Monthly	July 25, 2022
S3.A	Discharge Monitoring Report (DMR)	Semiannual	July 25, 2022
S3.F	Reporting Permit Violations – Five Day Written Report	As necessary	-
S4.A	Operations and Maintenance Manual	1/permit cycle	January 15, 2023
S4.A	Treatment System Operating Plan	1/permit cycle	January 15, 2023
S4.B	Reporting Bypasses	As necessary	-
S5.C.1.a	Solid Waste Control Plan Revisions or Modifications	As necessary	-
S5.C.1.c	Solid Waste Control Plan Update	1/permit cycle	May 31, 2026
S6.	Application for Permit Renewal	1/permit cycle	May 31, 2026
S7.	Reporting Significant Impingement or Entrainment Events	As necessary	-
S8.A	PCB Pollutant Minimization Plan (PMP)	1/permit cycle	July 1, 2023
S8.B	PCB PMP Annual Report	1/year	July 1, 2022
S8.C	Reporting PCB Action Level Exceedance	As necessary	-
S9.B	Reporting Walnut Shell Filtration (WSF) Influent Design Limit Exceedance	As necessary	-
S10. Item 1	Submission of Results of Bench Scale Testing	1/permit cycle	January 1, 2025
S10. Item 2	Submission of Results for Pilot Scale Testing	1/permit cycle	January 1, 2029
S10. Item 3	Submission of Approvable Engineering Report and Plan and Specifications	1/permit cycle	January 1, 2030
S10. Item 4	Confirmation Letter for Completion of Construction	1/permit cycle	January 1, 2031
S11.	Non-Routine and Unanticipated Discharges	As necessary	-
S12.A.1	Spill Control Plan Update	1/permit cycle	January 15, 2023

Permit Section	Submittal	Frequency	First Submittal Date
S13	Receiving Water Continuous Temperature Data	1/year	December 31, 2022
S14.A.1	Underground Injection Control (UIC) Monitoring Quality Assurance Project Plan	Once	January 15, 2023
S14.A.9	Underground Injection Control (UIC) Data Reports	1/year	December 31, 2022
S14.B.1	UIC Maintenance Plan	Once	December 31, 2022
S14.B.2	UIC Operation and Maintenance Plan Update and Annual Summary	1/year	December 31, 2022
S15.C.3	Acute Toxicity: Compliance Monitoring Reports	1/quarter	October 31, 2022
S15.D	Acute Toxicity: Response to noncompliance reporting	As necessary	-
S15.D	Acute Toxicity: TI/TRE Plan	As necessary	-
S16.A.4	Chronic Toxicity Effluent Test Results with Permit Renewal Application	Once	May 31, 2026
G1.	Notice of Change in Authorization	As necessary	-
G4.	Permit Application for Substantive Changes to the Discharge	As necessary	-
G5.	Engineering Report for Construction or Modification Activities	As necessary	-
G7.	Notice of Permit Transfer	As necessary	-
G10.	Duty to Provide Information	As necessary	-
G21.	Compliance Schedules	As necessary	-

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.

1. Final discharge to Spokane River – Outfall 0001

Beginning on the effective date of this permit, the Permittee is authorized to discharge stormwater and treated wastewater to the Spokane River at the permitted location subject to complying with the following limits:

Table 2: Effluent Limits – Outfall 0001

Latitude: 47.6860445517192 - **Longitude:** -117.223793548856

Parameter	Average Monthly ^a	Maximum Daily ^b
Cadmium (total)	1.3 µg/L	2.2 µg/L
Zinc (total)	75 µg/L	146 µg/L
Lead (total)	7.0 µg/L	12.1 µg/L
Total Polychlorinated Biphenyls (PCBs) ^c	170 pg/L	233 pg/L

Footnotes for Effluent Limits – Outfall 0001 Table:

^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 a calendar 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 40 CFR Part 136 Method 608 monitoring will be used to evaluate compliance. Any detection using this method is a violation of the permit limit.

Table 3: Effluent pH Limits - Outfall 0001

Parameter	Minimum	Maximum
pH ^a	6.0 standard units	9.0 standard units

Footnotes for Effluent pH Limits – Outfall 0001 Table:

^a When pH is continuously monitored, excursions between 5.0 and 6.0, or 9.0 and 10.0 are not be considered violations if no single excursion exceeds 60 minutes in length and total excursions do not exceed 7 hours and 26 minutes per month. Any excursions below 5.0 and above 10.0 at any time are violations.

Table 4: Effluent Ammonia Limits - Outfall 0001

Parameter	Seasonal Average ^a
Ammonia (as N)	9.0 lbs/day

Footnotes for Effluent Ammonia Limits – Outfall 0001 Table:

^a Seasonal Average effluent limit means the highest allowable average of daily discharges over a March 1 through October 31 time period. To calculate the discharge value to compare to the limit, add the value of each daily discharge measured during the March 1 through October 31 time-period and divide this sum by the total number of daily discharges measured.

Seasonal and Seasonal Bubble (Aggregate) Averages:

Total Phosphorus (as P)

1. The March 1 through October 31 seasonal average individual limit for total phosphorus (as P) is 3.21 lbs/day.
2. The March 1 through October 31 seasonal average bubble (aggregate) limit for total phosphorus (as P) is:
 - a. 3.21 lbs/day, when the total phosphorus (as P) seasonal average individual load from Inland Empire Paper Company (NPDES Permit No. WA0000825) during February 1 to October 31 is equal to or greater than 2.39 lbs/day.
 - b. $3.21 + [2.39 - \text{total phosphorus (as P) seasonal average individual load from Inland Empire Paper Company during February 1 to October 31 (lbs/day)}] \times 1.87$ lbs/day, when the total phosphorus (as P) seasonal average individual load from Inland Empire Paper Company (NPDES Permit No. WA0000825) during February 1 to October 31 is less than 2.39 lbs/day.
3. The Permittee will not be considered in violation of the seasonal average individual limit for total phosphorus (as P) listed in 1, above, unless the seasonal average bubble (aggregate) limit listed in 2, above, is also exceeded for the same reporting period.

Carbonaceous Biochemical Oxygen Demand (5-day) (CBOD₅)

1. The March 1 through October 31 seasonal average individual limit for CBOD₅ is 462.7 lbs/day.
2. The March 1 through October 31 seasonal average bubble (aggregate) limit for CBOD₅ is:
 - a. 462.7 lbs/day, when the CBOD₅ seasonal average individual load from Inland Empire Paper Company (NPDES Permit No. WA0000825) during March 1 to October 31 is equal to or greater than 123.2 lbs/day.
 - b. $462.7 + [123.2 - \text{CBOD}_5 \text{ seasonal average individual load from Inland Empire Paper Company during March 1 to October 31 (lbs/day)}] \times 2.9851$ lbs/day, when the CBOD₅ seasonal average individual load from Inland Empire Paper Company (NPDES Permit No. WA0000825) during February 1 to October 31 is less than 123.2 lbs/day.
3. The Permittee will not be considered in violation of the seasonal average individual limit for CBOD₅ listed in #1, above, unless the seasonal average bubble (aggregate) limit listed in #2, above, is also exceeded for the same reporting period.

Acute/Chronic Toxicity Limits

The effluent limit for acute toxicity is:

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

The ACEC means the maximum concentration of the effluent during critical conditions at the boundary of the acute mixing zone, defined in Permit Condition S1.B of this permit. The ACEC equals 40 percent effluent (dilution factor of 2.5). See Permit Condition S16 for more information.

Sanitary Sewage Limits – Outfall 0003

Beginning on the effective date of this permit, the Permittee is authorized to discharge treated sanitary sewage into the wastewater lagoon subject to complying with the following limits:

Table 5: Sanitary Sewage Effluent Limits – Outfall 0003

Latitude: 47.68611226945 - **Longitude:** -117.223988511704

Parameter	Average Monthly^a	Average Weekly^b
Biochemical Oxygen Demand (5-day) (BOD ₅)	30 mg/L	45 mg/L
BOD ₅	42 lbs/day	72 lbs/day
Total Suspended Solids (TSS)	30 mg/L	45 mg/L
TSS	42 lbs/day	72 lbs/day

Footnotes for Effluent Limits – Outfall 0003 Table:

^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, 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 Average weekly discharge limit means the highest allowable average of daily discharges over a calendar week, calculated as the sum of all daily discharges measured during a calendar week divided by the number of daily discharges measured during that week. See footnote g for bacteria calculations.

Table 6: Effluent Bacteria Limits – Outfall 0003

Parameter	Monthly Geometric Mean	Weekly Geometric Mean
Fecal Coliform Bacteria ^a	200/100 mL	400/100 mL

Footnotes for Effluent Bacteria – Outfall 0003 Table:

^a Ecology provides directions to calculate the monthly and the 7-day geometric mean in [Publication No. 04-10-020, Information Manual for Treatment Plant Operators](https://apps.ecology.wa.gov/publications/SummaryPages/0410020.html) available at <https://apps.ecology.wa.gov/publications/SummaryPages/0410020.html>.

2. Walnut Shell Filtration (WSF) effluent – Outfall 0006

Beginning on the effective date of this permit, the Permittee is authorized to discharge treated wastewater into final Outfall 0001 subject to complying with the following limits:

Table 7: Effluent Limits – Outfall 0006

Latitude: 47.6860445517192 - **Longitude:** -117.223793548856

Parameter	Average Monthly ^a	Maximum Daily ^b
Chromium (total)	2.1 lbs/day	5.1 lbs/day
Cyanide	0.53 lbs/day	1.27 lbs/day
Aluminum (total)	7.5 lbs/day	14.4 lbs/day
Oil and Grease	374.7 lbs/day	565.3 lbs/day
TSS	406.1 lbs/day	903.9 lbs/day

Footnotes for Effluent Limits – Outfall 0006 Table:

^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 a calendar 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.

S1.B. Mixing Zone Authorization

Mixing Zone for Outfall 0001

The paragraph below defines the maximum boundaries of the mixing zones.

Chronic Mixing Zone

The chronic mixing zone is limited to twenty-five percent of the river flow. 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 limited to two and one-half percent of the river flow. The concentration of pollutants at the edge of the acute zone must meet Acute Aquatic Life Criteria.

Table 8: Available Dilution (Dilution Factor)

Criteria	Factor
Acute Aquatic Life Criteria	2.5 (ACEC of 40% effluent)
Chronic Aquatic Life Criteria	20.4 (CCEC of 4.9% effluent)
Human Health Criteria - Carcinogen	24.1
Human Health Criteria - Non-carcinogen	74.1

S2. Monitoring requirements

S2.A. Monitoring Schedule

Table 9: Final Discharge to Spokane River – Outfall 0001

Parameter	Units & Speciation	Minimum Sampling Frequency ^a	Sample Type ^b
Flow	Million gallons per day (mgd)	Continuous ^a	Metered/Recorded
pH ^b	standard units	Continuous ^a	Metered/Recorded
Temperature	°F	Continuous ^a	Metered/Recorded
Zinc (total)	µg/L	2/week	24-Hour Composite ^c
Lead (total)	µg/L	2/week	24-Hour Composite ^c
Total Phosphorus (as P)	µg/L	2/week	24-Hour Composite ^c
Total Phosphorus (as P)	lbs/day	2/week	Calculated ^e
Total Phosphorus (as P) ^d	lbs/day	1/month	Calculated ^e
Total Reactive Phosphorus (as P)	µg/L	2/week	24-Hour Composite ^c

Parameter	Units & Speciation	Minimum Sampling Frequency ^a	Sample Type ^b
Total Reactive Phosphorus (as P)	lbs/day	2/week	Calculated ^e
CBOD ₅	mg/L	2/week	24-Hour Composite ^c
CBOD ₅	lbs/day	2/week	Calculated ^e
CBOD ₅ ^d	lbs/day	1/month	Calculated ^e
Ammonia (as N)	mg/L	2/week	24-Hour Composite ^c
Ammonia (as N)	lbs/day	2/week	Calculated ^e
Ammonia (as N) ^d	lbs/day	1/month	Calculated ^e
Hardness (as CaCO ₃)	mg/L	1/month	24-Hour Composite ^c
Total Alkalinity (as CaCO ₃)	mg/L	1/month	24-Hour Composite ^c
Arsenic (total)	µg/L	1/quarter ^g	24-Hour Composite ^c
Cadmium (total)	µg/L	2/year ^h	24-Hour Composite ^c
Total PCBs (sum of aroclors) ^f	µg/L	2/year ^h	24-Hour Composite ^c

Footnotes for Final Discharge to Spokane River Monitoring Table:

^a 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 insert or describe Frequency when continuous monitoring is not possible.

^b pH - the Permittee must record and report the:

- Number of minutes the pH value measured between 5.0 and 6.0 and between 9.0 and 10.0 for each day.
- Total minutes 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.

^c 24-Hour Composite means a series of individual samples collected over a 24-hour period into a single container, and analyzed as one sample.

^d 1/month loading - Total Phosphorus, Ammonia and CBOD₅ lbs/day (1/month) is a running total calculation for during the critical season. Report the running daily average load for 2/week samples for the March 1 through October 31 season.

^e Calculated means figured concurrently with the respective sample, using the following formula:

$$\text{Concentration (in mg/L)} \times \text{Flow (in MGD)} \times \text{Conversion Factor (8.34)} = \text{lbs/day}; \text{ or}$$

$$\text{Concentration (in ng/L)} \times \text{Flow (in MGD)} \times \text{Conversion Factor (3.7854} \times 10^{-3}) = \text{g/day}$$

^f Final Discharge to Spokane River – Outfall 0001, PCB compliance monitoring. Test using EPA Method 608.3.

^g 1/quarter means once every 3 months, 1st quarter is January – March, 2nd quarter is April – June, 3rd quarter is July – September, and 4th quarter is October – December.

^h 2/year means once every six months.

Table 10: Sanitary Sewage Effluent – Outfall 0003

Parameter	Units & Speciation	Minimum Sampling Frequency	Sample Type
Flow	gpd	Continuous ^a	Meter
pH	standard units	5/week	Grab ^b
BOD ₅ ^c	mg/L	1/week	24-Hour Composite ^d
BOD ₅ ^c	lbs/day	1/week	Calculated ^e
TSS	mg/L	1/week	24-Hour Composite ^d
TSS	lbs/day	1/week	Calculated ^e
Fecal Coliform	colonies/100 ml	1/week	Grab ^b
e Coli	colonies/100 ml	1/week	Grab ^b

Footnotes for Sanitary Sewage Effluent Monitoring Table:

^a 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 insert or describe Frequency when continuous monitoring is not possible.

^b Grab means an individual sample collected over a 15-minute, or less, period.

^c Take effluent samples for the BOD5 analysis before or after the disinfection process. If taken after, dechlorinate and reseed the sample.

^d 24-Hour Composite means a series of individual samples collected over a 24-hour period into a single container, and analyzed as one sample.

^e Calculated means figured concurrently with the respective sample, using the following formula:

$$\text{Concentration (in mg/L)} \times \text{Flow (in MGD)} \times \text{Conversion Factor (8.34)} = \text{lbs/day}; \text{ or}$$

$$\text{Concentration (in ng/L)} \times \text{Flow (in MGD)} \times \text{Conversion Factor (3.7854} \times 10^{-3}) = \text{g/day}$$

Table 11: Walnut Shell Filtration (WSF) Effluent – Outfall 0006

Parameter	Units & Speciation	Minimum Sampling Frequency	Sample Type
Flow	mgd	Continuous ^a	Meter
Chromium (total)	mg/L	2/week	24-Hour Composite ^b
Chromium (total)	lbs/day	2/week	Calculated ^c
Cyanide ^d	mg/L	2/week	24-Hour Composite ^b
Cyanide ^d	lbs/day	2/week	Calculated ^c
Aluminum (total)	mg/L	2/week	24-Hour Composite ^b

Parameter	Units & Speciation	Minimum Sampling Frequency	Sample Type
Aluminum (total)	lbs/day	2/week	Calculated ^c
TSS	mg/L	2/week	24-Hour Composite ^b
TSS	lbs/day	2/week	Calculated ^c
Oil & Grease	mg/L	2/week	24-Hour Composite ^b
Oil & Grease	lbs/day	2/week	Calculated ^c

Footnotes for Walnut Shell Filtration Effluent Monitoring Table:

^a 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 insert or describe Frequency when continuous monitoring is not possible.

^b 24-Hour Composite means a series of individual samples collected over a 24-hour period into a single container, and analyzed as one sample.

^c 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; or
 Concentration (in ng/L) X Flow (in MGD) X Conversion Factor (3.7854x10⁻³) = g/day

^d Periodic analysis for cyanide will not be required if both of the following conditions are met:

The first wastewater sample taken each calendar year is analyzed and found to contain less than 0.07 mg/L cyanide; and

The Permittee certifies in writing to Ecology that cyanide is not and will not be used in the aluminum forming and finishing operations.

Table 12: Walnut Shell Filtration (WSF) – Influent

Parameter	Units & Speciation	Minimum Sampling Frequency	Sample Type
Flow	mgd	Continuous ^a	Meter
Total PCBs (sum of aroclors) ^b	ng/L	1/every other week	24-Hour Composite ^c
Total PCBs (sum of aroclors) ^b	mg/day	1/every other week	Calculated ^d

Footnotes for Walnut Shell Filtration Influent Monitoring Table:

^a 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 insert or describe Frequency when continuous monitoring is not possible.

^b Walnut Shell Filtration (WSF) Influent, PCB monitoring. Test using EPA method 8082 ultra-low level analysis procedures.

^c 24-Hour Composite means a series of individual samples collected over a 24-hour period into a single container, and analyzed as one sample.

^d 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; or
 Concentration (in ng/L) X Flow (in MGD) X Conversion Factor (3.7854x10⁻³) = g/day

Table 13: River Intake – Spokane River

Parameter	Units & Speciation	Minimum Sampling Frequency	Sample Type
Flow	mgd	Continuous ^{a, b}	Meter
Chromium (total)	mg/L	2/week	24-Hour Composite ^c
Chromium (total)	lbs/day	2/week	Calculated ^d
Aluminum (total)	mg/L	2/week	24-Hour Composite ^c
Aluminum (total)	lbs/day	2/week	Calculated ^d
TSS	mg/L	2/week	24-Hour Composite ^c
TSS	lbs/day	2/week	Calculated ^d
Oil & Grease	mg/L	2/week	24-Hour Composite ^c
Oil & Grease	lbs/day	2/week	Calculated ^d

Footnotes for River Intake Monitoring Table:

^a Determine by difference from other metered flowrates.

^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 insert or describe Frequency when continuous monitoring is not possible.

^c 24-Hour Composite means a series of individual samples collected over a 24-hour period into a single container, and analyzed as one sample.

^d 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; or
 Concentration (in ng/L) X Flow (in MGD) X Conversion Factor (3.7854x10⁻³) = g/day

Table 14: Permit Renewal Application Requirements – Final Discharge to Spokane River (Outfall 0001)

See Appendix A to identify the specific pollutants in the Priority Pollutant groups listed below.

Parameter	Units & Speciation	Minimum Sampling Frequency	Sample Type
Cyanide	µg/L	Once in the last year	Grab ^a
Total Phenolic Compounds	µg/L	Once in the last year	Grab ^a
Priority Pollutants (PP) – Total Metals ^c	µg/L; ng/L for Mercury	Once in the last year	24-Hour Composite ^b Grab for Mercury

Parameter	Units & Speciation	Minimum Sampling Frequency	Sample Type
PP – Volatile Organic Compounds	µg/L	Once in the last year	Grab ^a
PP – Acid-extractable Compounds	µg/L	Once in the last year	24-Hour Composite ^b
PP – Base-neutral Compounds	µg/L	Once in the last year	24-Hour Composite ^b
PP – Dioxin	pg/L	Once in the last year	24-Hour Composite ^b
PP – Pesticides/PCBs	µg/L	Once in the last year	24-Hour Composite ^b

Footnotes for Permit Renewal Application Monitoring Table

^a Grab means an individual sample collected over a 15-minute, or less, period.

^b 24-Hour Composite means a series of individual samples collected over a 24-hour period into a single container, and analyzed as one sample.

^c Priority Pollutant Scans for Total Metals shall use total recoverable metal laboratory methods for all parameters except for hexavalent chromium. The 40 Code of Federal Regulations (CFR) 136 method for hexavalent chromium measures only its dissolved form.

Table 15: Whole Effluent Toxicity Testing – Final Discharge to Spokane River (Outfall 0001) Effluent as specified in Special Condition S16.

Parameter	Units & Speciation	Minimum Sampling Frequency	Sample Type
Acute Toxicity Testing	see S16.A	Once/quarter ^a	24-Hour Composite ^b

Footnotes for Whole Effluent Toxicity Testing Monitoring Table:

^a Once/quarter means sampling periods of January through March, April through June, July through September, and October through December.

^b 24-Hour Composite means a series of individual samples collected over a 24-hour period into a single container, and analyzed as one sample.

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 Code of Federal Regulations (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 the devices to ensure the accuracy of the measurements is consistent with the accepted industry standard, the manufacturer's recommendation, and approved Operation and Maintenance (O&M) Manual procedures for the device and the waste stream.
3. Calibrate continuous monitoring instruments weekly unless it can demonstrate a longer period is sufficient based on monitoring reports.

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, [Publication No. 18-03-205](https://apps.ecology.wa.gov/publications/documents/1803205.pdf), **Standard Operating Procedures for Continuous Temperature Monitoring of Fresh Water Rivers and Streams**, Version 2, at <https://apps.ecology.wa.gov/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 Washington Administrative Code (WAC), Accreditation of Environmental Laboratories. Flow, Temperature, Settleable Solids, Conductivity, pH, and internal process control parameters are exempt from the 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 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, and
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 Conditions 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 <https://ecology.wa.gov/Regulations-Permits/Guidance-technical-assistance/Water-quality-permits-guidance/WQWebPortal-guidance>.

2. Submit electronic DMRs 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 25th day of the following month.
 - b. Submit **semiannual** DMRs, unless otherwise specified in the permit, by July 25 and January 25 of each year. Semiannual sampling periods are January through June, and July through December, sampling to start in the first semiannual sampling period.
4. Enter the “No Discharge” reporting code for an entire DMR, for a specific monitoring point, or 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 the < 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 DL and the 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 bacterial 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. Calculate the geometric mean values for bacteria (unless otherwise specified in the permit) using:
 - a. The reported numeric value for all bacteria samples measured above the detection value except when it took multiple samples in one day it must use the arithmetic average for the day in the geometric mean calculation.
 - b. The detection value for those samples measured below detection.
 10. 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.
 11. 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 pint for the reporting period.
 - c. Zero (for values reported below detection) if the lab did not detect the parameter in another sample for reporting period.
12. Report single-sample grouped parameters (for example; priority pollutants, PAHs, pulp and paper chlorophenolics, TTOs) on the WQWebDMR form and include; sample date, concentration detection, DL (as necessary), and laboratory QL (as necessary).

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 submittal 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 Program
Department of Ecology
Eastern Regional Office
4601 N Monroe Street
Spokane, WA 99205

S3.C. Records retention

The Permittee must retain records of all monitoring information for **a minimum of three 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 30 days of sampling.
 - a. Immediate Reporting

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

- Failures of disinfection system
- Collection system overflows discharging to a water body used as a source of drinking water.
- Plant bypasses discharging to a water body used as a source of drinking water.

Ecology Eastern Regional Office (509) 329-3400

Department of Health (800) 521-0323 (business hours)
Drinking Water Program (877) 481-4901 (after hours)

b. Immediate Reporting - Other

The Permittee must report the following occurrences of noncompliance by telephone, to Ecology at the telephone number listed above:

- i. Any noncompliance that may endanger health or the environment, unless previously reported under immediate reporting requirements.
- ii. Any unanticipated bypass that causes an exceedance of any effluent limit in the permit (See Part S4.B., Bypass Procedures).
- iii. Any upset that causes an exceedance of an effluent limit the permit (See G15., Upset).
- iv. Any violation of a maximum daily or instantaneous maximum discharge limit for any of the pollutants in Special Condition S1.A. of this permit.
- v. 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 that 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:

- i. A description of the noncompliance and its cause.
- ii. The period of noncompliance, including exact dates and times.
- iii. The estimated time the Permittee expects the noncompliance to continue if not yet corrected.
- iv. Steps taken or planned to reduce, eliminate, and prevent recurrence of the noncompliance.
- v. If the noncompliance involves an overflow prior to the treatment works, an estimated 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 reporting when it submits monitoring reports for Special Condition S3.A. (Discharge monitoring reports). 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

1. Spills of Oil or Hazardous Materials

The Permittee must [report a spill of oil or hazardous materials](#) in accordance with the requirements of Revised Code of Washington (RCW) 90.56.280 and WAC 173-303-145. More information on how to report a spill is available on Ecology's 'Report a Spill' website at <https://ecology.wa.gov/About-us/Get-involved/Report-an-environmental-issue/Report-a-spill>.

2. 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. Operations 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 interrupting of wastewater treatment and degrade effluent equality, 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. Operation and Maintenance (O&M) Manual

1. O&M Manual Submittal and Requirements

The Permittee must:

- a. **Update the O&M Manual** that meets the requirements of WAC 173-240-150 and submit it to Ecology for approval **by January 15, 2023.**
- b. Review the Plan at least annually and update as needed.
- c. Submit to Ecology for review and approval substantial changes or updates to the O&M Manual.
- c. Keep the approved O&M Manual at the permitted facility.
- d. Follow the instructions and procedures of this manual.

2. O&M Manual Components

In addition to the requirements of WAC 173-240-150, the O&M Manual must be consistent with the guidance in Table G1-3 of Ecology [Publication No. 98-37, Criteria for Sewage Design](#), available at <https://apps.ecology.wa.gov/publications/documents/9837.pdf>.

The O&M Manual must include:

- a. Emergency procedures for plant shutdown and cleanup in the event of a wastewater system upset or failure.
- b. A review of system components that, 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.
- c. Wastewater system maintenance procedures that contribute to the generation of process wastewater.
- d. 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).
- e. Wastewater sampling protocols and procedures for compliance with the sampling and reporting requirements in the wastewater discharge permit.
- f. Minimum staffing adequate to operate and maintain the treatment processes and carry out compliance monitoring required by the permit.
- g. Treatment plant process control monitoring schedule.

3. 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 January 15, 2023**. 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:

- a. 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.
- b. 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.
- c. 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.
- d. 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 bypass 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 Special Condition 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 bypass 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 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 that 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 State Environmental Policy Act (SEPA).
 - A request for modification of Water Quality Standards as provided 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 the 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 (AKART), nor allow such leachate to cause violation of 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 water.

S5.C. Solid Waste Control Plan

1. Submittal Requirements

The Permittee must:

- a. Submit to Ecology any proposed revision or modification of the Solid Waste Control Plan for review and approval at least 30 days prior to implementation.
- b. Comply with the Plan and any modifications.
- c. **Submit an update of the Solid Waste Control Plan** with the permit renewal application that is due **by May 31, 2026**.

2. Solid Waste Control Plan Content

The Solid Waste Control Plan must:

- a. Use [Publication No. 07-10-024](https://apps.ecology.wa.gov/publications/documents/0710024.pdf), **Developing a Solid Waste Control Plan Focus Sheet** to address all solid wastes generated by the Permittee, which is available online at <https://apps.ecology.wa.gov/publications/documents/0710024.pdf>.
- b. Include, at a minimum, a description, source, generation rate, and disposal methods of these solid wastes.
- c. Not conflict with local or state solid waste regulations.

S6. Application for permit renewal or modification for facility changes

The Permittee must submit an application for renewal of this permit **by May 31, 2026**.

Mail the **original, signed application** to the Water Quality Permit Coordinator, Eastern Regional Office, Department of Ecology, 4601 N. Monroe Street, Spokane, Washington 99205.

Send an electronic copy of the application (preferably as a PDF) by email to the Permit Coordinator at stra461@ecy.wa.gov. Scan any attachments to the application and submit them with the application.

The Permittee must also submit a new application or addendum at least 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. Cooling water intake structure (CWIS)

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

The Permittee must also report any significant impingement or entrainment events to Ecology within 24 hours at the telephone number listed in Permit Condition S3.F.2.a.

S8. PCB pollutant minimization plan (PMP)

The goal of the PCB Pollutant Minimization Plan (PMP) is to maintain, or lower, effluent loading of total PCB in the discharge through identified and quantified control actions. The Permittee must identify, implement, and evaluate the efficacy of these actions in the PMP.

S8.A. PCB PMP

By July 1, 2023, the Permittee must review and update its existing PCB PMP and submit it to Ecology for review and approval. The Permittee must also update the PCB PMP as necessary in conjunction with the PCB PMP Annual Report.

The updated PMP must include:

1. A section that lists members of the cross functional team that developed the initial PCB PMP and those that are responsible for the implementation and on-going revisions to the Plan. The designated team leader for the PCB PMP development, implementation, and on-going revisions must be identified.
2. A section that describes PCB PMP items that have been implemented and an estimate of their effectiveness with respect to either total PCB effluent loading or effluent concentration reductions.
3. A section that identifies any proposed or considered PCB PMP items along with an evaluation of their feasibility, both technical and economic. As appropriate, these PCB PMP items may include substitution of materials, treatment system performance improvement actions, and operational process or procedure revisions or modifications. The PCB PMP shall also include the elements identified in Permit Condition S8.
4. A summary of activities with respect to minimizing the potential risks of PCB discharge from incoming materials to the facility. The summary must describe the risk evaluation process used, the evaluation process to be used going forward, and a summary of the assessment findings at the time of the initial report.
5. PCB source identification and cleanup actions and procedures within the industrial wastewater collection system.
6. A section that provides a schedule for identifying and repairing compromised sewer pipes in the north portion of the industrial sewer system.
7. A section that provides a schedule for the implementation of feasible PCB PMP items that have been identified above.

8. Quality Assurance/Quality Control (QA/QC) Plan for PCB source control and effluent monitoring. The QA/QC Plan must include testing frequencies for routine monitoring of PCBs in the final effluent (Outfall 0001) for effluent characterization using EPA method 1668. Prepare the QA/QC Plan in accordance with the guidelines provided in Guidelines for Preparing Quality Assurance Project Plans for Environmental Studies, Ecology publication 04-03-030.
9. Discharge flow reduction actions are a required element of the PCB PMP and, at a minimum, must include the following actions.

Table 16: PMP Flow Reduction Actions

	Action	Target Schedule
1.	Complete Conversion to Groundwater Sourced Cooling, estimated average daily reduction in effluent flow of 0.5 mgd	3 rd Qtr. 2020
2.	Underground Injection Phase 2, Non-Contact Cooling, South Production Area, average daily infiltration rate of 0.5 mgd	3 rd Qtr. 2020
3.	Contact Cooling, Heat Treat Systems and South Production Area, estimated average daily reduction in effluent flow of 1.0 mgd	4 th Qtr. 2023
4.	Contact Cooling, South Area Facility Modernization Project	1 st Qtr. 2025
5.	Underground Injection Phase 3, Non-Contact Cooling, Casting Operations, estimated Phase 3 + Phase 4 average daily reduction in effluent flow up to 1.0 mgd	2 nd Qtr. 2025
6.	Underground Injection Phase 4, Miscellaneous Cooling Systems, estimated Phase 3 + Phase 4 average daily reduction in effluent flow up to 1.0 mgd	2 nd Qtr. 2026
7.	Contact Cooling, Casting Operations	1 st Qtr. 2029

S8.B. PCB PMP Annual Report

By July 1 of each year beginning with 2022, a PCB PMP Annual Report for the previous calendar year must be submitted to Ecology. The Annual Report must include:

1. A section that provides a summary of the previous calendar year’s effluent PCB data. The data summary shall include PCB effluent loading and concentration data. The data summaries must include congener, homologue, dioxin like congener, and total PCB results. Results shall be presented on an uncensored basis and on a blank censored basis using 5 and 10 times the values detected in the corresponding laboratory blank.
2. A section that provides a summary of the previous calendar year’s Walnut Shell Filter System’s (WSFs) inlet PCB loading and concentration for total PCBs.

3. A section, as appropriate, that contains any monitoring information relative to the PCB PMP not already provided elsewhere in the Annual Report.
4. A section that evaluates the overall effectiveness of all PCB PMP activities that have been implemented with respect to both effluent loadings and concentration and WSFS inlet loading and concentration.
5. A section that describes actions and schedules related to PCB source identification and cleanup within the industrial wastewater treatment system.
6. A section that describes updates being made to the PCB PMP.
7. A section that describes the implementation of elements associated with condition S8.D, below.

S8.C. Action Level for Discharge Investigation

In the event that the monthly average PCB discharge level in Outfall 0001 exceeds the Action Level of 122 milligrams per day:

1. Notify Ecology within one working day after receipt of the final analytical results,
2. Any archived samples from internal Outfall 004 and Outfall 005 must be analyzed using low level 8082 laboratory procedures with a target detection limit of 5 ng/L for Aroclor 1242, and
3. The findings of all sampling efforts related to the exceedance of the Action Level must be reported to Ecology within 15 days of receiving the final analytical results. In addition to final analytical results, the report must also contain the results of any internal reviews of laboratory QA/QC information and process or wastewater treatment system operations during the exceedance period.

S8.D. Regional toxics task force

The Permittee must continue to participate in the cooperative efforts and functions of the Regional Toxics Task Force with the goal of implementing the [2016 Comprehensive Plan](http://srrttf.org/wp-content/uploads/2016/04/Comp_Plan_Final_11-29-16-2.pdf) to Reduce Polychlorinated Biphenyls (PCBs) in the Spokane River, review the plan online at http://srrttf.org/wp-content/uploads/2016/04/Comp_Plan_Final_11-29-16-2.pdf.

To assist in accomplishing that goal, the Permittee will implement the following elements, within its control, from the Spokane River Regional Toxics Task Force (SRRTTF) 2016 Comprehensive Plan to Reduce Polychlorinated Biphenyls (PCBs) in the Spokane River (Comprehensive Plan):

- Screening for PCB Containing Materials
- Building Demolition and Disposal
- PCB Containing Electrical Equipment

- Leak Prevention/Detection in Electrical Equipment

Participation in an equivalent citizen advisory organization or committee may substitute for the requirement to participate in the Spokane River Regional Toxics Task Force.

S9. Facility Loading

S9.A. Design Criteria

The flows and wasteloads for the Walnut Shell Filtration (WSF) System must not exceed the following design criteria:

Table 17: Design Criteria

Flows or Waste Loads	Criteria
Monthly Average Flow	11 mgd
Monthly Average Total PCB Inlet Loading	0.78 g/day

The Monthly Average flow means the average of the daily flows during a calendar month and the Monthly Average Total PCB Loading is the average of all daily inlet loadings during a calendar month. Consistent with the Engineering Design Report, one-half of the detection limit for Aroclor 1242 will be used for non-detect results for calculating the monthly average loading.

S9.B. Loading Investigation

Bi-weekly grab samples of the influent to the lagoon (north inlet and south inlet) must be collected during each sampling event for the Walnut Shell Filtration (WSF) system inlet (Special Condition S2, Outfall 0006). The Permittee must archive these samples until analytical results for the corresponding WSF system inlet samples during the reporting period are received.

In the event that the monthly average WSF system inlet loading criteria (0.78 grams/day) is exceeded:

1. Notify Ecology within one working day after receipt of the final analytical results.
2. The archived samples from the lagoon inlets must be analyzed using low-level 8082 laboratory procedures with a target detection limit of 5 ng/L for Aroclor 1242.
3. The findings of this sampling effort must be reported to the Department of Ecology within 15 days of receiving the final analytical results.

S10. Compliance schedule

By the dates tabulated below, the Permittee must complete the following tasks and submit a report describing, at a minimum:

- Whether it completed the task and, if not, the date on which it expects to complete the task.
- The reasons for the delay and the steps it is taking to return the project to the established schedule.

Table 18: Compliance Schedule

	Tasks	Date Due
1.	Submission of results of bench scale testing Proposed schedule for pilot scale testing of candidate technologies	1/1/2025
2.	Submission of results of pilot scale testing Proposed schedule for submission of approvable engineering report	1/1/2029
3.	Submission of approvable engineering report and plans and specification for treatment system that provides technology all known, available, and reasonable methods of prevention, control, and treatment for PCBs	1/1/2030
4.	Confirmation Letter for completion of construction of the Ecology approved treatment system	1/1/2031

S11. Non-routine and unanticipated wastewater

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:

1. The proposed discharge location;
2. The nature of the activity that will generate the discharge;
3. Any alternatives to the discharge, such as reuse, storage, or recycling of the water;
4. The total volume of water it expects to discharge;
5. The results of the chemical analysis of the water;
6. The date of proposed discharge; and
7. The expected rate of discharge discharged, in gallons per minute.

The Permittee must analyze the water for constituents limited for the discharge and report them as required by subpart A.5 above. 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.

The Permittee must limit the discharge rate, as referenced in subpart A.7 above, so it will not cause erosion of ditches or structural damage to culverts and their entrances or exists.

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 to a municipal storm drain, the Permittee must obtain prior approval from the municipality and notify it when it plans to discharge.

S12. Spill control plan

S12.A. Spill Control Plan Submittals and requirements

The Permittee must:

1. Submit an update to the existing Spill Control Plan to Ecology **by January 15, 2023.**
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.

S12.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 a 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 underlying requirement.

S13. Receiving water study of temperature

The Permittee must continue to collect information on the effluent and receiving water 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 this information to calculate effluent limits.

Use the temperature device manufacture's software to generate (export) an Excel text file of Temperature data for each June-October period. **Send this file and placement logs to Ecology by December 31 of the monitoring year.**

The placement logs should include the following information for both thermistor deployment and retrieval: date, time, temperature device manufacturer ID, location, depth, whether it measured air or water temperature, and any other details that may explain data anomalies. To see an example of a placement log, go to [Attachment D-2](#) of the **Standard Operating Procedures for Continuous Temperature Monitoring of Fresh Water Rivers and Streams**, online at <https://apps.ecology.wa.gov/publications/documents/1803205.pdf>.

S14. Underground injection control (UIC) reporting

The Permittee must collection information to determine any impacts from the discharge of non-contact cooling water into its UIC systems.

S14.A Quality Assurance Project Plan

The Permittee must:

1. Submit a Sampling Quality Assurance Project Plan for Ecology review and approval **by January 15, 2023**. Prepare all Quality Assurance Plans in accordance with the guidelines give in Ecology [Publication 04-03-030, Guidelines for Preparing Quality Assurance Project Plans for Environmental Studies](#), Ecology Publication 04-03-030 available at <https://apps.ecology.wa.gov/publications/documents/0403030.pdf>.
2. Conduct sampling and analysis in accordance with the approved Quality Assurance Project Plan.
3. Monitoring wells must be located upgradient and downgradient from the UIC systems. Groundwater testing must include, at a minimum, continuous temperature and water level measurements.
4. Non-contact cooling water testing must include, at a minimum, continuous flow and temperature measurements, and discrete sampling and analysis for total PCBs using EPA method 1668.
5. Any surface water testing must include continuous temperature measurements.

6. Use micro-recording temperature devices known as thermistors to measure groundwater and surface water temperatures. Ecology's Quality Assurance Project Plan Development Tool, [Publication No. 18-03-205](#), **Standard Operating Procedures for Continuous Temperature Monitoring of Fresh Water Rivers and Streams**, contains protocols for continuous temperature sampling and is available online at <https://apps.ecology.wa.gov/publications/documents/1803205.pdf>.
7. Calibrate the devices as specified in the document listed in S15.A.6, above, unless using recording devices certified by the manufacturer. Ecology does not require manufacture-specific equipment. However, if the Permittee wishes to use measuring devices from another company, it must demonstrate the accuracy is equivalent.
8. Set the recording devices to record continuous temperature and water level measurements for groundwater at a frequency interval of six hours or less. Set the recording devices to record continuous surface water temperatures at a frequency interval of one-half hour.
9. **Submit data reports by December 31 of every year.**

S14.B UIC Well Maintenance Plan

1. The Permittee must submit a maintenance plan for activities the Permittee will undertake to maintain the infiltration capacity UIC Systems **by December 31, 2022.**
2. The Permittee must submit an annual summary of operation and maintenance activities of the UIC System, and any updates to its maintenance plan, **by December 31 of every year.**

S15. Acute Toxicity

S15.A. Effluent Limit for Acute Toxicity

The Effluent Limit for Acute Toxicity is:

No acute toxicity detected in a test concentration representing the ACEC.

The ACEC means the maximum concentration of effluent during critical conditions at the boundary of the Acute Mixing Zone, defined in Permit Condition S1.B. The ACEC equals 40% effluent.

S15.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 percent, the Permittee must conduct the hypothesis test at the 0.01 level of significance.

S15.C. Compliance Testing for Acute Toxicity

The Permittee must:

1. Perform the Acute Toxicity Tests with 100 percent 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 July 1, 2022.** Quarterly 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 October 31, 2022.** Each subsequent report is due on April 30, July 31, October 31, and January 31 of each year. Further instructions on testing conditions and test reports 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

S15.D. Response to Noncompliance with the Effluent Limit for Acute Toxicity

If a toxicity test conducted under Section D determines a statistically significant difference in response between the ACEC and the control, using the statistical test described in Section C, 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 C.
3. Return to the original monitoring frequency in Section D after completion of the additional compliance monitoring.

Anomalous test results: If a toxicity test conducted under Section D 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 to determine compliance with the Acute Toxicity limit.

If all of the additional testing in S16.D 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 recordings, including:

- Operating Records
- Monitoring Results
- Inspection Records

- Spill Reports
- Weather Records
- Production Records
- Raw Material Purchases
- Pretreatment Records, etc.

In 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 60 days after the sample date [WAC 173-205-100(2)].

S15.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](#) available online at <https://apps.ecology.wa.gov/publications/documents/9580.pdf>.

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 the 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 ACEC. The ACEC equals 40% 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 percent as defined in [WAC 173-205-020](https://apps.leg.wa.gov/WAC/default.aspx?cite=173-205-020) (<https://apps.leg.wa.gov/WAC/default.aspx?cite=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. Chronic Toxicity

S16.A. Testing when there is no permit limit for chronic toxicity

The Permit 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. Conduct Chronic Toxicity testing on a series of at least five concentrations of effluent and a control. This series of dilutions must include the ACEC. The ACEC equals 40% effluent. The series of dilutions should also contain the CCEC of 4.9% effluent.
3. Compare the ACEC to the control by using hypothesis testing at the 0.05 level of significance as described in Appendix H, EPA/600/4-89/001.
4. Submit the results to Ecology **by May 31, 2026** (with the permit renewal application).
5. Perform Chronic Toxicity Tests with all of the following species and the most recent version of the following protocols:

Table 20: Freshwater Chronic Tests

Freshwater Chronic Test	Species	Method
Fathead Minnow Survival and Growth	<i>Pimephales Promelas</i>	EPA-821-R-02-013
Water Flea Survival and Reproduction	<i>Ceriodaphnia Dubia</i>	EPA-821-R-02-013

S16.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](https://apps.ecology.wa.gov/publications/documents/9580.pdf) (<https://apps.ecology.wa.gov/publications/documents/9580.pdf>). 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 the 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 4.9% effluent. The ACEC equals 40% percent effluent.

8. All Whole Effluent Toxicity tests that involve hypothesis testing must comply with the Chronic Statistical Power Standard of 39 percent as defined in [WAC 173-205-020](https://apps.leg.wa.gov/WAC/default.aspx?cite=173-205-020) (<https://apps.leg.wa.gov/WAC/default.aspx?cite=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.

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.
 - b. In the case of a partnership, by a general partner.
 - c. In the case of sole proprietorship, by the proprietor.
 - d. 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, must 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 a 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.

Under condition 2.d below, Ecology will reopen the permit should the Human Health Criteria for PCBs be revised.

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 that 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 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 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, a 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 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 emanates, 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 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 \$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 \$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 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 years, or by both.

G20. Reporting requirements applicable to existing manufacturing, commercial, mining and silvicultural discharges

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:

- A. 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:"
 1. One hundred micrograms per liter (100 µg/L)
 2. Two hundred micrograms per liter (200 µg/L) for Acrolein and Acrylonitrile; 500 µg/L for 2,4-Dinitrophenol and 2-Methyl-4,6-Dinitrophenol; and 1 mg/L for Antimony.
 3. Five times the maximum concentration value reported for that pollutant in the permit application in accordance with 40 CFR Part 122.21(g)(7).
 4. The level established by the Director in accordance with 40 CFR Part 122.44 (f).
- B. 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:"

1. 500 µg/L
2. 1 mg/L for Antimony
3. Ten times the maximum concentration value reported for that pollutant in the permit application in accordance with 40 CFR Part 122.21(g)(7).
4. The level established by the Director in accordance with 40 CFR Part 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 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.

Conventional Pollutants

Pollutant	CAS Number (if available)	Recommended Analytical Protocol	Detection (DL)¹ µg/L Unless specified	Quantitation Level (QL)² µg/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

Nonconventional Pollutants

Pollutant	CAS Number (if available)	Recommended Analytical Protocol	Detection (DL)¹ µg/L Unless specified	Quantitation Level (QL)² µg/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
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-CI B/C/D/E and SM4110 B		Sample and limit dependent
Chlorine, Total Residual		SM4500 CI G		50.0
Cobalt, Total	7440-48-4	200.8	0.05	0.25
Color		SM2120 B/C/E		10 color units
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
Nitrogen, Total Kjeldahl (as N)		SM4500-N _{org} B/C and SM4500NH ₃ - B/C/D/EF/G/H		300
NWTPH Dx ⁴		Ecology NWTPH Dx	250	250
NWTPH Gx ⁵		Ecology NWTPH Gx	250	250

Pollutant	CAS Number (if available)	Recommended Analytical Protocol	Detection (DL)¹ µg/L Unless specified	Quantitation Level (QL)² µg/L Unless specified
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

**Priority Pollutants
 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
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

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
Phenols, Total	65		EPA 420.1		50

Acid 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
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
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

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

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
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 (chlorodibromomethane)	51	124-48-1	624.1	3.1	9.3
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)	33	542-75-6	624.1	5.0	15.0

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
(1,2-dichloropropylene) ⁶					
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/SM6200 B	1.0	2.0

Base/Neutral Compounds (Compounds in **Bold** are Ecology PBTS)

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
Acenaphthene	1	83-32-9	625.1	1.9	5.7
Acenaphthylene	77	208-96-8	625.1	3.5	10.5

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
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

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
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
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	5.0	20
Fluoranthene	39	206-44-0	625.1	2.2	6.6

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
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	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-Methylcholanthrene		56-49-5	625	2.0	8.0
Naphthalene	55	91-20-3	625.1	1.6	4.8
Nitrobenzene	56	98-95-3	625.1	1.9	5.7
N-Nitrosodimethylamine	61	62-75-9	607/625	2.0	4.0
N-Nitrosodi-n-propylamine	63	621-64-7	607/625	0.5	1.0
N-Nitrosodiphenylamine	62	86-30-6	625	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

Dioxin

Priority Pollutant	PP #	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-Tetra-Chlorodibenzo-P-Dioxin (2,3,7,8 TCDD)	129	1746-01-6	1613B	1.3 pg/L	5 pg/L

Pesticides/PCBS

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
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
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

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
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

Analytical Methods

1. **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.
2. **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 μm (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)
<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)
<https://fortress.wa.gov/ecy/publications/documents/97602.pdf>.
6. **1, 3-dichloropropylene (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)