

United States Environmental Protection Agency
Region 10, OWW-130
1200 Sixth Avenue, Suite 900
Seattle, Washington 98101

Authorization to Discharge Under the National Pollutant Discharge Elimination System

In compliance with the provisions of the Clean Water Act, 33 U.S.C. §1251 *et seq.*, as amended by the Water Quality Act of 1987, P.L. 100-4, the "Act",

U.S. Department of Defense
Department of the Army
Joint Base Lewis McChord, WA 98433-5000

is authorized to discharge from the **Solo Point Wastewater Treatment Plant** located at **Fort Lewis, WA** at the following location(s):

Outfall	Receiving Water	Latitude	Longitude
001	Puget Sound (Solo Point)	47° 8' 10"	122° 38' 17"

in accordance with discharge point(s), effluent limitations, monitoring requirements and other conditions set forth herein.

This permit shall become effective **April 1, 2012**.

This permit and the authorization to discharge shall expire at midnight, **April 1, 2017**.

The permittee shall reapply for a permit reissuance on or before **October 3, 2016** - 180 days before the expiration of this permit if the permittee intends to continue operations and discharges at the facility beyond the term of this permit.

Signed this 15th, February, 2012



for
Michael A. Bussell, Director
Office of Water and Watersheds
U.S. Environmental Protection Agency

Schedule of Submissions

The following is a summary of some of the items the permittee must complete and/or submit to EPA during the term of this permit:

Permit Section	Submittal	Frequency	Due Date	Agency
Effluent monitoring:				
I.B.	Discharge Monitoring Report	Monthly	Must be postmarked on or before the 15th day of the following month.	EPA
I.D.	Acute Toxicity Effluent Characterization Data	2/permit cycle: January 2013 July 2013	Sixty (60) days after each subsequent sampling event.	EPA
I.D.	Acute Toxicity Effluent Test Results with Permit Renewal Application	1/permit cycle	With application for permit renewal.	EPA
I.D.	Chronic Toxicity Effluent Characterization Data	2/permit cycle: April 2013 October 2013	Sixty (60) days after each subsequent sampling event.	EPA
I.D.	Chronic Toxicity Effluent Test Results with Permit Renewal Application	1/permit cycle	With application for permit renewal.	EPA
I.A.	PBDE Monitoring (Influent and Effluent)	8 quarters total /permit cycle (4 each in first and last years)	Within 3 months of conclusion of each sampling year.	EPA/NOAA
Biosolids:				
I.I.C.	Sewage Sludge Management Form 2S	1/permit cycle	Within 6 months after permit effective date.	EPA
Operations and maintenance:				
I.I.G.	O&M Plan Update Confirmation Letter	1/permit cycle	Must notify EPA in writing that the Plan is up to date and implemented within 180 days after permit effective date.	EPA
I.I.E.	Outfall Evaluation	1/permit cycle	Submit report with the application for permit renewal.	EPA
I.I.F.	Quality Assurance Plan Certification	1/permit cycle	Must notify EPA in writing that the Plan is up to date and implemented within 180 days after permit effective date.	EPA

II.I.	Feasibility Study and Engineering Report	1/permit cycle	Due with application for permit renewal.	EPA
II.J.	Emergency Response and Public Notification Plan Certification	1/permit cycle	Must notify EPA in writing that the Plan is up to date and implemented within 180 days after permit effective date.	EPA
Receiving environment:				
II.D.	Effluent Mixing Study Plan	1/permit cycle	At least 3 months prior to initiation of mixing study.	EPA (courtesy copy to Ecology)
II.D.	Effluent Mixing Study	1/permit cycle	With application for permit renewal.	EPA (courtesy copy to Ecology)
II.E.	Habitat Survey	1/permit cycle	Within 3 months of conclusion of study.	EPA/NOAA
Collection system:				
II.H.	I/I Annual Report	Annually	Must be postmarked on or before June 15 of the following year.	EPA
II.B.	Draft Local Sewer Use Ordinance (or Army Equivalent)	1/permit cycle	Within 3 months after permit effective date.	EPA
II.B.	Interlocal Agreement	1/permit cycle	Within 1 year after Sewer Use Ordinance submittal date.	EPA
II.B.	Pretreatment Annual Report	Annually	Must be postmarked on or before February 15 of the following year.	EPA
II.B.	Industrial User Survey Update	Annually	With the pretreatment annual report.	EPA
Permit reapplication:				
V.B.	Application for Permit Renewal (including effluent monitoring data per Form 2A, Part D)	1/permit cycle	One hundred eighty (180) days before permit expiration.	EPA
As necessary:				
III.G.	24-hour Noncompliance Notification	As necessary		
III.I.	Public Notification	As necessary		
III.J.	Notice of New Introduction of Toxic Pollutants	As necessary		
IV.J.	Reporting Planned Changes	As necessary		
IV.K.	Reporting Anticipated Non-compliance	As necessary		

V.C.	Duty to Provide Information	As necessary	
V.D.	Reporting Other Information	As necessary	
V.E.3.	Notice of Change in Authorization	As necessary	

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I. Limitations and Monitoring Requirements

A. Discharge Authorization

During the effective period of this permit, the permittee is authorized to discharge pollutants from the outfalls specified herein to the **Puget Sound (Solo Point)**, within the limits and subject to the conditions set forth herein. This permit authorizes the discharge of only those pollutants resulting from facility processes, waste streams, and operations that have been clearly identified in the permit application process.

B. Effluent Limitations and Monitoring

1. The permittee must limit and monitor discharges from Outfall 001 as specified in Table 1, below. All figures represent maximum effluent limits unless otherwise indicated. The permittee must comply with the effluent limits in the tables at all times unless otherwise indicated, regardless of the frequency of monitoring or reporting required by other provisions of this permit.

Table 1: EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS							
Parameter	Effluent Limitations				Monitoring Requirements		
	Average Monthly Limit	Average Weekly Limit	Maximum Daily Limit	Instantaneous Maximum Limit	Sample Location	Sample Frequency	Sample Type
Flow	7.0 MGD	---	---	---	Effluent	continuous	measure
Biochemical Oxygen Demand (BOD5) ^a	30 mg/l	45 mg/l	---	---	Influent and Effluent	daily composite	24-hr
	1751 lbs/day	2627 lbs/day	---	---			
BOD5 (percent removal) ¹	85% removal				Influent and Effluent	Monthly calculation	calculation
Total Suspended Solids (TSS)	30 mg/l	45 mg/l	---	---	Influent and Effluent	daily composite	24-hr
	1751 lbs/day	2627 lbs/day	---	---			
TSS (percent removal) ¹	85% removal				Influent and Effluent	Monthly calculation	calculation
Fecal Coliform Bacteria ^b	200/100 ml	400/100 ml	---	---	Effluent	Daily	grab
Total Residual Chlorine	0.36 mg/L		0.50 mg/L (Max. Daily)-	---	Final effluent ^c	daily	grab
pH	6.0-8.5 s.u.				Effluent	daily	grab

Table 1: EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS							
Parameter	Effluent Limitations				Monitoring Requirements		
	Average Monthly Limit	Average Weekly Limit	Maximum Daily Limit	Instantaneous Maximum Limit	Sample Location	Sample Frequency	Sample Type
TPH	---	---	10 mg/L	---	Influent and Effluent	monthly for 1 yr; then quarterly w/ pretreatment parameter Set 1 below ^g	grab
	---	---	---	---	Digested Sludge		grab
Total Ammonia ^h as N, mg/L	---	---	---	---	Effluent	Monthly	grab
Total Kjeldahl Nitrogen, mg/L	---	---	---	---	Effluent	Monthly	grab
Nitrogen, NO ₂ +NO ₃ , mg/L	---	---	---	---	Effluent	Monthly	grab
Total Phosphorus, mg/L	---	---	---	---	Effluent	Monthly	grab
Ethylene glycol and propylene glycol, mg/L	---	---	---	---	Influent, Effluent	Weekly (December through February)	composite
Temperature ⁱ , °C	---	---	---	---	Effluent	Daily	grab
NPDES Application Form 2A Effluent Testing ^j	---	---	---	---	Effluent	3x / 5 years	---
Whole Effluent Toxicity (WET) Testing	---	---	---	---	Effluent	Acute Tests: January 2013 and July 2013 and Chronic Tests April 2013 and October 2013	24-hr
Pretreatment Parameters, Set 1 ^k Priority pollutant metals, TPH, and cyanide	---	---	10 mg/L, TPH	---	Influent	Quarterly ^d	Composite (TPH & cyanide grab) ^e
					Effluent	Quarterly ^d	
					Digested Sludge	1 taken w/in 30 days of inf. sample ^g	Grab

Table 1: EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS							
Parameter	Effluent Limitations				Monitoring Requirements		
	Average Monthly Limit	Average Weekly Limit	Maximum Daily Limit	Instantaneous Maximum Limit	Sample Location	Sample Frequency	Sample Type
<u>Pretreatment Parameters, Set 2¹</u> Priority pollutant organics	---	---	---	---	Influent	Annually ^d	Composite ^e
					Effluent	Annually ^d	Composite ^e
					Digested Sludge	1 taken w/in 30 days of inf. sample ^g	Grab
Polybrominated diphenyl ethers (PBDEs)	---	---	---	---	Influent Effluent	Quarterly (during the first full year & year 5 of the 5-yr permit cycle).	Grab
Sludge Monitoring (for land application)	Abide by the limitations and monitoring requirements established by 40 CFR Part 503 ^k .						
<p>a.) Samples for BOD5 analysis may be taken before or after the disinfection process. If taken after, the sample must be dechlorinated and reseeded.</p> <p>b.) Average monthly fecal coliform count must not exceed a geometric mean of 200/100 ml. The average weekly fecal coliform count must not exceed a geometric mean of 400/100 ml. See Part V for a definition of geometric mean. The fecal coliform sample must be taken concurrently with Total Residual Chlorine (before dechlorination). Reporting is required within 24 hours of a maximum daily limit or instantaneous maximum limit violation. See Section I.B.2. and III.G.</p> <p>c.) Sampled after dechlorination.</p> <p>d.) The days selected for routine sampling shall be rotated annually or quarterly (e.g., first quarter sample Monday, second quarter sample Tuesday, etc. during normal operating hours). The influent and effluent must be sampled on days when industrial and commercial discharges are occurring at normal to maximum levels.</p> <p>e.) Cyanide, Volatile Organics and Phenols must be taken as a minimum of 2 grab samples and separately analyzed in place of each 24 hour composite. Cyanide grab samples shall consist of a minimum of two samples collected at intervals of 15 minutes or greater within a 24-hour period (with the maximum of the two values reported). TPH must also be taken as a grab sample set (one grab for NWTPH-Gx and one grab for NWTPH-Dx).</p> <p>f.) The Set 1 and Set 2 Pretreatment Parameters lists are contained in Section I.B.9 below and reflect the priority pollutant wastewater characterization results submitted with the permit application. Monitoring should also address any additional pollutants expected from nondomestic sources.</p> <p>g.) The timing of the sludge sample relative to the associated influent sample should reflect the solids retention time in the digester. Sludge samples must be analyzed using NWTPH methods as noted in the other TPH monitoring permit requirements.</p> <p>h.) The effluent nutrient sampling parameters are continued from the previous permit, however the frequency was increased from semi-annual to monthly sampling.</p> <p>i.) Temperature monitoring should occur during the time of day when effluent temperatures are expected to be at their highest. Report results to EPA monthly with the DMR.</p> <p>j.) Where applicable, effluent monitoring required by other conditions of this permit (e.g. equivalent pretreatment monitoring) may be used to satisfy this requirement.</p> <p>k.) Until future issuance of a sludge-only permit, sludge management and disposal activities at the facility continue to be subject to the national sewage sludge standards at 40 CFR Part 503. These regulations are self-implementing; therefore, permittees must comply with them whether or not a permit has been issued.</p> <p>l.) Percent removal of BOD and TSS is calculated as follows (concentrations in mg/L): (Average Monthly Influent Concentration - Average Monthly Effluent Concentration) / Average Monthly Influent Concentration.</p>							

2. The permittee must not discharge any floating solids, visible foam in other than trace amounts, or oily wastes that produce a sheen on the surface of the receiving water.
3. The pH must not be less than **6.0** standard units (s.u.) nor greater than **8.5** standard units (s.u.).
4. Removal Requirements for BOD₅ and TSS: The monthly average effluent concentration must not exceed 15 percent of the monthly average influent concentration. Percent removal of BOD₅ and TSS must be reported on the Discharge Monitoring Reports (DMRs). For each parameter, the monthly average percent removal must be calculated from the arithmetic mean of the influent values and the arithmetic mean of the effluent values for that month. Influent and effluent samples must be taken over approximately the same time period.
5. The permittee must collect effluent samples from the effluent stream after the last treatment unit prior to discharge into the receiving waters.
6. Method Detection Limits. For all influent and effluent monitoring, the permittee must use EPA-approved analytical methods that can achieve a method detection limit (MDL) 0.1 times the effluent limitation or the most sensitive EPA-approved method, whichever is greater. For parameters that do not have effluent limitations, the permittee must use methods that can achieve MDLs less than or equal to those specified in Table 2. The permittee may request different MDLs. The request must be in writing and must be approved by EPA. Requests for higher MDLs for pretreatment monitoring must be submitted in writing to the Pretreatment Coordinator at the address in paragraph III.B. below.

Table 2: Metals MDLS	
Parameter	Method Detection Limit (MDL)
Arsenic	1.0 µg/L
Cadmium	0.1 µg/L
Chromium	1.0 µg/L
Copper	1.0 µg/L
Lead	1.0 µg/L
Mercury	0.005-0.01 µg/L
Nickel	1.0 µg/L
Selenium	2.0 µg/L
Silver	0.2 µg/L
Zinc	0.05 µg/L
Cyanide	5.0 µg/L (represents the minimum level, ML)

7. The analytical method for Total Residual Chlorine (TRC) analysis shall achieve a method detection limit (MDL) of 0.010 mg/L (10 µg/L). The final effluent limits for TRC are below detection limits using EPA approved analytical methods; therefore, EPA will use the minimum level (ML) of 0.100 mg/L (100 µg/L) as the compliance evaluation level for TRC. When the daily maximum concentration is below the ML, the permittee will be in compliance with the TRC limits.

For reporting TRC on the DMR:

- a) If a value is less than the MDL (0.010 mg/L), the permittee must report “<0.010 mg/L” on the DMR.
- b) If the value is between the MDL and the ML (between 0.010 and 0.100 mg/L), the permittee must report “<0.100 mg/L” on the DMR.
- c) If a value is greater than or equal to the ML (0.100 mg/L), the permittee must report and use the actual value.

For calculating and reporting TRC averages:

- a) Zero may be assigned for values less than the MDL.
 - b) “0.010 mg/L” may be assigned for values between the MDL and ML.
 - c) If the average value is less than the MDL, the permittee must report “<0.010 mg/L.”
 - d) If the average value is between the MDL and ML, the permittee must report “<0.100 mg/L.”
8. The permittee must perform the effluent testing required by Parts B.6 and D of the NPDES application Form 2A (EPA Form 3510-2A, revised 1-99). The permittee must submit the results of this testing with its application for renewal of this NPDES permit. Where applicable, effluent monitoring required by other conditions of this permit may be used to satisfy the requirements of this paragraph.
9. Pretreatment Discharge Monitoring.
- a) The permittee must sample influent and effluent from the FOTW for: TPH and all specific toxic organic pollutants listed in Table II of Appendix D of 40 CFR 122.
 - b) All TPH monitoring required by this permit must be analyzed using the NWTPH-Gx and NWTPH-Dx analytical methods, ensuring that instruments are calibrated to the JP-8 fuel type and that the integration range is limited to avoid double-counting volatiles in the semi-volatile range or vice versa.
 - c) The following metals must also be analyzed and reported as total metals: arsenic, cadmium, chromium, copper, cyanide, lead, mercury, molybdenum, nickel, selenium, silver, and zinc.
 - d) If the FOTW accepts ammonia from industrial sources, the permittee must also sample the FOTW influent and effluent for ammonia.
 - e) The permittee must sample sludge for: TPH, arsenic, cadmium, chromium, copper, lead, mercury, molybdenum, nickel, selenium, silver, zinc, and percent solids.
 - f) Frequency:
 - (i) For all pretreatment parameters except TPH, metals, cyanide, and phenol:
Sampling must be conducted annually.

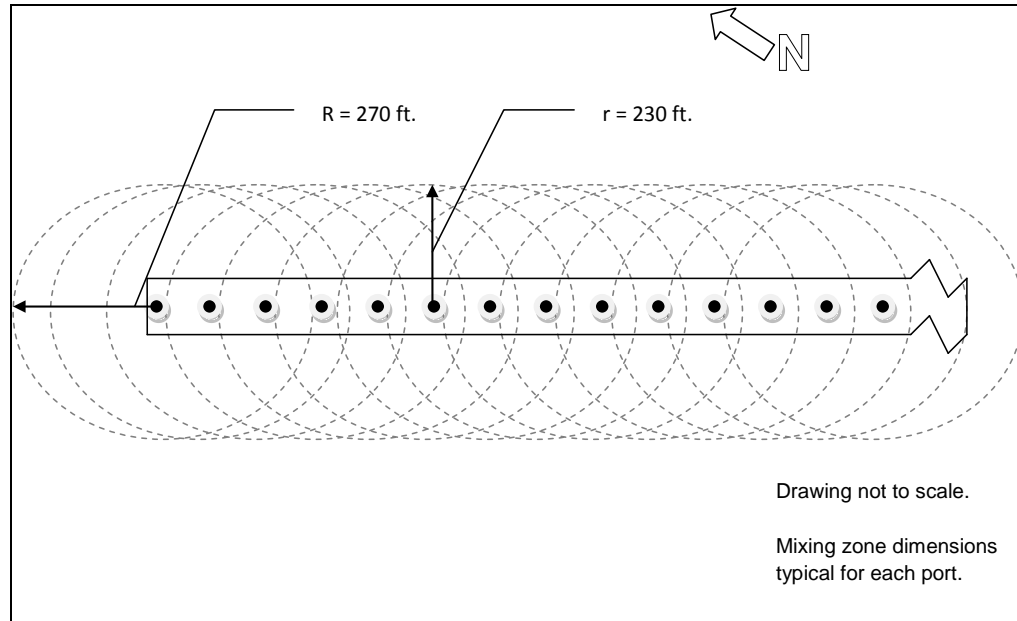
- (ii) For metals, cyanide, and phenol:
Sampling must be conducted quarterly.
- (iii) For TPH:
 - (a) TPH, first 1 year.
Sampling must be conducted monthly.
 - (b) TPH, remaining years in the permit cycle.
Sampling must be conducted quarterly.
- g) Sludge Sampling and Reporting: Sludge samples must be taken as the sludge leaves the dewatering device or digesters. The sludge samples should be taken within 30 days of the associated wastewater sampling or as appropriate given the solids residence time. Metals concentrations in sludge must be reported in mg/kg, dry weight.
- h) Reporting Results: Analytical results for each day's samples must be reported separately. Sample results must be submitted with the pretreatment annual report required in paragraph II.B.6.
- i) Cyanide sampling: Influent and effluent sampling for cyanide must be conducted as follows. Two discrete grab samples must be collected over a 24-hour day. Each grab sample must be at least 100 ml. Each sample must be checked for the presence of chlorine and/or sulfides prior to preserving and compositing (refer to Standard Methods, 4500CN B). If chlorine and/or sulfides are detected, the sample must be treated to remove any trace of these parameters. After testing and treating for the interference compounds, the pH of each sample must be adjusted, using sodium hydroxide, to 12.0 standard units. The higher of the two samples can then be chilled to 4 degrees Celsius to allow for one analysis for the day.
- j) Toxic organics sampling: The permittee must perform chemical analyses of its influent, effluent, and sludge for all specific toxic organic pollutants listed in Table II of Appendix D of 40 CFR 122.
 - (i) Sample Type: The influent and effluent samples must be 24-hour composites, except when sampling volatiles.
 - (ii) Volatile Organics Sampling: eight discrete samples must be collected over the 24 hour day using 40 ml VOC vials with Teflon septa. During sampling, the flow from the discharge will be controlled to produce smooth laminar flow to prevent agitation and aeration of the sample. The VOC vials will be filled to the top such that there is a meniscus present. There must be no visible air space or air bubbles in the VOC vials when capped. A single analysis for volatile pollutants may be run for each monitoring day by compositing equal volumes of the individual discrete VOC vials (at the analytical laboratory using extreme care not to introduce air/air bubbles) directly into the GC purge and trap apparatus, with no less than 1 ml of each grab included

in the composite. The composite sample must be analyzed immediately.

- (iii) **GC/MS Analysis:** In addition to analyzing for pollutants specified above, the permittee must make a reasonable attempt using GC/MS analytical techniques to identify and quantify the ten most abundant constituents of each effluent extract (excluding toxic organic pollutants and unsubstituted aliphatic compounds) shown to be present by peaks on the total ion plots (reconstructed gas chromatograms). Identification must be attempted through the use of the USEPA/NIH computerized library of mass spectra, with visual confirmation by an experienced analyst. Quantification may be an order-of-magnitude estimate based upon comparison with an internal standard.
- (iv) **Sample Handling:** All samples must be prepared, preserved, shipped, and analyzed in accordance with USEPA Methods 624 and 625.
- (v) **Phenol or Sulfides Sampling of Influent and Effluent:** Chemical analyses of phenols and sulfides must be conducted on a composite sample from eight discrete samples collected over a 24-hour day. Each aliquot must not be less than 100 ml and must be composited into a larger container.

C. Mixing Zone Authorization

1. **Chronic Mixing Zone.** WAC 173-201A-400(7)(b) specifies that mixing zones must not extend in any horizontal direction from the discharge ports for a distance greater than 200 feet plus the depth of water over the discharge ports as measured during MLLW (the Fort Lewis diffuser is at a depth of 70 feet MLLW). The previous permit define the chronic mixing as 300 ft x 230 ft, however WAC 173-201A-400(6) requires that the size of mixing zone be minimized. The permit reduces of the horizontal distance of the chronic mixing zone to the regulatory maximum of 270 feet. To avoid backsliding, the minor axis horizontal extent will remain at 230 feet. The mixing zone extends from the seabed to the top of the water surface. The figure below provides a plan view of the chronic mixing zone. The total length of the mixing zone along the diffuser's major axis is 670 feet (the distance between ports is 10 feet).



2. Acute Mixing Zone. WAC 173-201A-400(8)(b) specifies that in estuarine waters a zone where acute criteria may be exceeded must not extend beyond 10% of the distance established for the chronic zone. The acute mixing zone for Outfall 001 extends between 23 feet and 27 feet from the centers of the discharge ports, depending on the direction.

D. Whole Effluent Toxicity Testing Requirements

ACUTE TOXICITY			CHRONIC TOXICITY		
<p>The permittee must conduct acute toxicity testing on final effluent during January 2013 and July 2013.</p> <p>Conduct acute toxicity tests on a series of at least five concentrations of effluent, including 100% effluent, and a control. Use each of the following species and protocols for each acute toxicity test:</p>			<p>The permittee must conduct chronic toxicity testing on final effluent during April 2013 and October 2013.</p> <p>Perform chronic toxicity tests on a series of at least five concentrations of effluent and a control. This series of dilutions must include the acute critical effluent concentration (ACEC), the maximum concentration of effluent during critical conditions at the boundary of the acute mixing zone. The ACEC equals 1.89% effluent. Use each of the following species and the most recent version of the following protocols for each chronic toxicity test:</p>		
Acute Toxicity Tests	Species	Method	Chronic Toxicity Test	Species	Method
Fathead minnow 96-hour static-renewal test	<i>Pimephales promelas</i>	EPA-821-R-02-012	Topsmelt survival and growth	<i>Atherinops affinis</i>	EPA/600/R-95/136
Daphnid 48-hour static test	<i>Ceriodaphnia dubia</i> , <i>Daphnia pulex</i> , or <i>Daphnia magna</i>	EPA-821-R-02-012	Mysid shrimp survival and growth	<i>Mysidopsis bahia</i> / <i>Americamysis bahia</i>	EPA-821-R-02-014
Toxicity Test Statistical Procedure					
<p>The test for acute toxicity is:</p> <p>Achievement of a median of at least 80% survival in 100% effluent with no single test showing less than 65% survival in 100% effluent.</p>			<p>The test for chronic toxicity is:</p> <p>No statistically significant difference in response between the control and the test concentration representing the acute critical effluent concentration (ACEC).</p> <p>The permittee must determine the statistical significance by conducting a hypothesis test at the 0.05 level of significance (EPA-821-R-02-013).</p>		

Sampling and Reporting Compliance
1. The permittee must conduct all water quality measurements and submit all reports for toxicity testing in accordance with the most recent version of the Whole Effluent Toxicity testing guidance established for discharges in Washington State (see Department of Ecology Publication No. WQ-R-95-80, <i>Laboratory Guidance and Whole Effluent Toxicity Test Review Criteria</i>). All toxicity tests must meet quality assurance criteria and test conditions specified within the aforementioned guidance. If EPA determines any test results to be invalid or anomalous, the permittee must repeat the testing with freshly collected effluent.
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 use control water and dilution water meeting the requirements of the EPA methods listed above, or pristine natural water of sufficient quality for good control performance.
4. Effluent samples for whole effluent toxicity testing shall be collected just prior to the chlorination step in the treatment process.
5. Characterization data must be submitted to EPA within 60 days of each subsequent sampling event. A summary of the toxicity test results must also be submitted to EPA with the permit renewal application.

II. Special Conditions

A. PBDE Monitoring

Formal consultation under the Endangered Species Act with NOAA's National Marine Fisheries Service has led to the inclusion of this special condition for the temporary monitoring of polybrominated diphenyl ethers (PBDEs).

The permittee must conduct representative **quarterly influent and effluent** monitoring for PBDEs during the **first full year** (8 samples total, which includes 4 influent and 4 effluent samples spaced apart quarterly) and during the **final year** of the permit cycle (8 samples total). The following congeners were identified by NOAA's Protected Resources Division as being of specific interest to their study of marine mammal health in Puget Sound. Consequently the permittee must analyze the following PBDE congeners: **BDE-15, -28/33, -46, -47, -66, -75, -99, -100, -119, -153, -154, -155, and -209.**

The permittee must submit the results of this PBDE monitoring to EPA and to NOAA no later than 3 months after the conclusion of each year of PBDE monitoring. Copies of the analytical results (1 from the first year of monitoring and 1 from the last year of monitoring) must be sent to EPA at the address identified in Section III.B., as well as to the NOAA National Marine Fisheries contact at the following address:

c/o Alison Agness
 National Marine Fisheries Service
 Northwest Region
 7600 Sand Point Way NE, Building 1
 Seattle, WA 98115

B. Pretreatment

1. Implementation.

The permittee must implement its pretreatment program in accordance with the legal authorities, policies, procedures, staffing levels and financial provisions described in its original pretreatment program submission entitled *Fort Lewis Pretreatment Program Procedures* and received at EPA with the permit application on July 18, 2008, any program amendments submitted thereafter, and the general pretreatment regulations (40 CFR 403) and any amendments thereof. At a minimum, the permittee must carry out the following activities:

- a) Submit a draft local sewer use ordinance (or Army equivalent) to EPA within 3 months of the effective date of this permit, and establish the ordinance within 6 months of the effective date of the permit.
- b) Enforce prohibitive discharge standards as set forth in 40 CFR 403.5(a) and (b) categorical pretreatment standards promulgated pursuant to Section 307(b) and (c) of the Act (where applicable), and local limitations and Best Management Practices (BMPs) developed by the permittee in accordance with 40 CFR 403.5(c), whichever are more stringent and are applicable to non-domestic users discharging wastewater into the permittee's collection system. Locally derived limitations must be defined as pretreatment standards under Section 307(d) of the Act.
- c) Maintain, periodically review, and modify as necessary, BMPs for purposes of preventing the introduction of pollutants into surface water and the FOTW. The permittee shall ensure compliance with the BMPs. Any discrepancy that results in a release to surface water or the FOTW is subject to the reporting requirements in Section S3 of this permit. Whenever there are substantive changes to the Best Management Practices, the permittee shall submit the revised plan to EPA within thirty (30) days of adoption of the revised provisions.
- d) Implement and enforce the requirements of the most recent local laws and regulations (e.g. municipal code, sewer use ordinance) addressing the regulation of non-domestic users.
- e) Update its inventory of non-domestic users at a frequency and diligence adequate to ensure proper identification of non-domestic users subject to pretreatment standards, but no less than once per year. The permittee must notify these users of applicable pretreatment standards in accordance with 40 CFR 403.8(f)(2)(iii).
- f) Issue, reissue, and modify, in a timely manner, industrial wastewater discharge permits to at least all Significant Industrial Users (SIUs) and categorical industrial users. These documents must contain, at a minimum, conditions identified in 40 CFR 403.8(f)(1)(iii), including Best Management Practices, if applicable. The permittee must follow the methods described in its implementation procedures for issuance of individual permits.
- g) Develop and maintain a data management system designed to track the status of the permittee's non-domestic user inventory, non-domestic user discharge characteristics, and their compliance with applicable pretreatment

standards and requirements. The permittee must retain all records relating to its pretreatment program activities for a minimum of three years, as required by 40 CFR 403.12(o), and must make such records available to EPA upon request. The permittee must also provide public access to information considered effluent data under 40 CFR 2.

- h) Establish, where necessary, contracts or legally binding agreements with contributing jurisdictions to ensure compliance with applicable pretreatment requirements by non-domestic users within these jurisdictions. These contracts or agreements must identify who is responsible for the various implementation and enforcement activities in the contributing jurisdiction. In addition, the permittee may be required to develop a Multi-Jurisdictional Agreement (MJA) that outlines the specific roles, responsibilities and pretreatment activities of each jurisdiction.

Documentation of this interlocal agreement must be submitted to EPA in the year following issuance of the ordinance described in Pretreatment condition A.1.a. above.

- i) Carry out inspections, surveillance, and monitoring of non-domestic users to determine compliance with applicable pretreatment standards and requirements. A complete inspection of all SIUs and sampling of all SIUs' effluent must be conducted at least annually.
- j) Require SIUs to conduct wastewater sampling as specified in 40 CFR 403.12(e) or (h). Frequency of wastewater sampling by the SIUs must be appropriate for the character and volume of the wastewater **but no less than twice per year**. Sample collection and analysis must be performed in accordance with 40 CFR 403.12(b)(5)(ii) through (v) and 40 CFR 136. In cases where the Pretreatment Standard requires compliance with a Best Management Practice or pollution prevention alternative, the permittee must require the User to submit documentation to determine compliance with the Standard. If the permittee elects to conduct all non-domestic user monitoring for any SIU instead of requiring self-monitoring, the permittee must conduct sampling in accordance with the requirements of this paragraph, and the requirements of 40 CFR 403.12(g)(2).
- k) Enforce and obtain remedies for any industrial user noncompliance with applicable pretreatment standards and requirements. This must include timely and appropriate reviews of industrial reports to identify all violations of the user's permit, the local ordinance, and federal pretreatment standards and requirements. Once violations have been uncovered, the permittee must take timely and appropriate action to address the noncompliance. The permittee's enforcement actions must follow its EPA-reviewed enforcement response procedures.
- l) Publish, at least annually, in a newspaper or newspapers of general circulation that provides meaningful public notice within the jurisdiction(s) served by the FOTW, a list of all non-domestic users which, at any time in

the previous 12 months, were in significant noncompliance as defined in 40 CFR 403.8 (f)(2)(viii).

- m) Maintain adequate staff, funds and equipment to implement its pretreatment program.
- n) Conduct an analysis annually to determine whether influent pollutant loadings are approaching the maximum allowable headworks loadings calculated in the permittee's most recent local limits calculations. Any local limits found to be inadequate by this analysis must be revised. The permittee may be required to revise existing local limits or develop new limits if deemed necessary by EPA.
- o) Ensure that pollution control facilities and devices are designed by a licensed professional engineer.

1. Spill Prevention and Slug Discharges.

The permittee must implement an accidental spill prevention program to reduce and prevent spills and slug discharges of pollutants from non-domestic users. Slugs of diesel and other fuels can cause an upset at the treatment plant and allow pollutants to pass through the treatment system.

- a) Control mechanisms for SIUs must contain requirements to control slug discharges if determined by the FOTW to be necessary [40 CFR 403.8(f)(1)(iii)(B)(6)].
- b) SIUs must be evaluated for the need for a plan or other action to control slug discharges within 1 year of being designated an SIU. For IUs designated as significant prior to November 14, 2005, this evaluation must be conducted by October 14, 2006 [40 CFR 403.8(f)(2)(vi)].
- c) SIUs must notify the FOTW immediately of any changes at their facilities affecting the potential for a slug discharge [40 CFR 403.8(f)(2)(vi)].

2. Enforcement Requirement.

Whenever EPA finds, on the basis of any available information, that the owner or operator of any source is introducing a pollutant into the FOTW in violation of national pretreatment standards, including prohibited discharges, local limits, or categorical standards, or that interference or pass through has occurred, EPA may notify the owner or operator of the FOTW of such violation. If, within 30 days after such notification has been sent by EPA to the FOTW, the FOTW fails to commence appropriate enforcement action to correct the violation, EPA may take appropriate enforcement action under the authority provided in section 309(f) of the Clean Water Act.

3. Modification of the Pretreatment Program.

If the permittee elects to modify any components of its pretreatment program, it must comply with the requirements of 40 CFR 403.18. No substantial program modification, as defined in 40 CFR 403.18(b), may be implemented prior to receiving written authorization from EPA.

4. Control of Undesirable Pollutants.

The permittee must not allow introduction of the following pollutants into the publicly owned treatment works (FOTW):

- a) Pollutants which will create a fire or explosion hazard in the FOTW, including, but not limited to, wastestreams with a closed cup flashpoint of less than 140 °F or 60 °C using the test methods specified in 40 CFR 261.21;
- b) Pollutants which will cause corrosive structural damage to the FOTW, but in no case, discharges with a pH lower than 5.0, unless the FOTW is designed to accommodate such discharges;
- c) Solid or viscous pollutants in amounts which will cause obstruction to the flow in the FOTW (including the collection system) resulting in interference;
- d) Any pollutant, including oxygen demanding pollutants (BOD, etc.), released in a discharge at a flow rate and/or pollutant concentration which will cause interference with the FOTW;
- e) Heat in amounts which inhibit biological activity in the FOTW resulting in interference, but in no case heat in such quantities that the temperature at the FOTW treatment plant exceeds 40 °C (104 °F) unless the Regional Administrator, upon request of the FOTW, approves alternate temperature limits;
- f) Petroleum oil, nonbiodegradable cutting oil, or products of mineral oil origin in amounts that will cause interference or pass through;
- g) Pollutants which result in the presence of toxic gases, vapors, or fumes within the FOTW in a quantity that may cause acute worker health and safety problems; and
- h) Any trucked or hauled pollutants, except at discharge points designated by the FOTW.

5. Requirements for Industrial users.

The permittee must require any industrial user of its treatment works to comply with any applicable requirements in 40 CFR 403 through 471.

6. Pretreatment Annual Report.

The permittee must submit an annual report, pursuant to 40 CFR 403.12(i), that describes the permittee's program activities over the January 1 – December 31 report year. This report must be submitted to the addresses in Section III.B, no later than February 15 of the following year. The pretreatment report must be compiled following the Region 10 Annual Report Guidance. At a minimum, the report must include:

- a) An updated non-domestic user inventory, including those facilities that are no longer discharging (with explanation), and new dischargers, appropriately categorized and characterized. Categorical users should have

the applicable category noted as well as cases where more stringent local limits apply instead of the categorical standard.

- b) Results of wastewater and sludge sampling at the FOTW as specified in Section I.B. (above).
- c) Calculations of removal rates for each pollutant for each day of sampling.
- d) An analysis and discussion of whether the existing local limitations in the permittee's sewer use ordinance continue to be appropriate to prevent treatment plant interference and pass through of pollutants that could affect water quality or sludge quality. This should include a comparison between influent loadings and the most recent relevant maximum allowable headworks loadings calculated for the treatment plant.
- e) Status of program implementation, including:
 - (i) Any planned modifications to the pretreatment program including staffing and funding updates.
 - (ii) A description of any interference, upset, or NPDES permit violations experienced at the FOTW which were directly or indirectly attributable to non-domestic users, including:
 - (a) Date and time of the incident,
 - (b) Description of the effect on the FOTW's operation,
 - (c) Effects on the FOTW's effluent and biosolids quality,
 - (d) Identification of suspected or known sources of the discharge causing the upset, and
 - (e) Steps taken to remedy the situation and to prevent recurrence
 - (iii) Listing of non-domestic users inspected and/or monitored during the report year with dates and an indication compliance status.
 - (iv) Listing of non-domestic users planned for inspection and/or monitoring for the coming year along with associated frequencies.
 - (v) Listing of non-domestic users whose permits have been issued, reissued, or modified during the report year along with current permit expiration dates.
 - (vi) Listing of non-domestic users notified of promulgated pretreatment standards and/or local standards during the report year as required in 40 CFR 403.8(f)(2)(iii).
 - (vii) Listing of non-domestic users notified of promulgated pretreatment standards or applicable local standards who are on compliance schedules. The listing must include the final date of compliance for each facility.
 - (viii) Status of enforcement activities including:

- (a) Listing of non-domestic users who failed to comply with applicable pretreatment standards and requirements, including:
 - (i) Summary of the violation(s),
 - (ii) Enforcement action taken or planned by the permittee, and
 - (iii) Present compliance status as of the date of preparation of the pretreatment report,
- (b) Listing of those users in significant noncompliance during the report year as defined in 40 CFR 403.8(f)(2)(viii) and a copy of the newspaper publication of those users' names.
- (c) EPA may require more frequent reporting on those users who are determined to be in significant noncompliance.

C. Sewage Sludge Management

The permittee must submit an updated sewage sludge permit application (Form 2S) to EPA within six months of the effective date of this permit. The permittee must also sample sewage sludge for TPH monthly for 1 year; and then quarterly for the remainder of the permit cycle. These sludge samples should be taken within 30 days of the corresponding influent TPH sample (or as appropriate given solids retention times for the facility digesters). As usual, sewage sludge sampling for land application must proceed according to the requirements of 40 CFR 503.

The requirement for an update of the permittee's most recent sludge application submitted to EPA (dated June 16, 2006) can be met one of three ways:

- a) By submitting an updated version of Ecology's Application for Coverage Under the Statewide General Permit for Biosolids Management, which has been accepted at EPA Region 10 in lieu of Form 2S as a matter of practice;
- b) By providing completing Form 2S (as discussed above); or
- c) By submitting a letter that includes at least the following information:
 - (i) A process flow diagram illustrating the new dewatering process and demonstrating that no mixing occurs before distribution of the finished biosolids content;
 - (ii) Representative sludge sampling points; and
 - (iii) An updated 90-day contingency plan taking account changes in biosolids storage capacity (drying beds).

D. Effluent Mixing Study

7. General Requirements

- a) The permittee must determine the degree of effluent and receiving water mixing which occurs within the mixing zone (as defined in permit section I.C). Ecology authorizes mixing zones in Washington State and sets the conditions that must be met in order for discharge permits in the state to be

granted a mixing zone in state waters. The degree of mixing in Washington must be determined during critical conditions, as defined in WAC 173-201A-020 Definitions - "Critical Condition," or as close to critical conditions as reasonably possible.

- b) In Washington, permittees must use the Guidance for Conducting Mixing Zone Analyses to establish the critical condition scenarios (Ecology, 1996). The permittee must measure the dilution ratio in the field with dye using study protocols specified in the Guidance, Section 5.0 "Conducting a Dye Study," as well as other protocols listed in Subpart C "Protocols." The permittee may use mixing models as an acceptable alternative or adjunct to a dye study if:
 - (i) The critical ambient conditions necessary for model input are known or will be established with field studies.
 - (ii) If the diffuser is visually inspected for integrity or has been recently tested for performance by the use of tracers.
- c) The permittee must consult the Guidance mentioned above when choosing the appropriate model.
- d) The use of models is required if critical condition scenarios that need to be examined are quite different from the set of conditions present during the dye study.
- e) The permittee may need to validate (and possibly calibrate) a model. Validation/calibration must be conducted in accordance with the Guidance mentioned above, in particular, Subsection 5.2 "Quantify Dilution."
- f) The permittee must submit a Plan of Study to EPA with a courtesy copy sent to Ecology prior to initiation of the effluent mixing study.

8. Reporting Requirements

- a) The permittee must include the results of the effluent mixing study in the Effluent Mixing Report, and must submit it to EPA no later than with the application for permit renewal. A courtesy copy should be submitted to Ecology concurrently.
- b) If the permittee has information on the background physical conditions or background concentration of chemical substances (for which there are criteria in chapter 173-201A WAC) in the receiving water, the permittee must submit this information as part of the Effluent Mixing Report.
- c) If the results of the mixing study, toxicity tests, and chemical analysis indicate that the concentration of any pollutant(s) exceeds or has a reasonable potential to exceed the state water quality standards, chapter 173-201A WAC, EPA may issue an administrative order to require a reduction of pollutants or modify this permit to impose effluent limits to meet the water quality standards.

- d) The permittee must locate the outfall and mixing zone boundaries with GPS coordinates. The accuracy of station locations must be identified in the report.

9. Protocols

The permittee must determine the dilution ratio using protocols outlined in the following references, approved modifications thereof, or by another method approved by EPA:

- Akar, P.J. and G.H. Jirka, Cormix2: An Expert System for Hydrodynamic Mixing Zone Analysis of Conventional and Toxic Multiport Diffuser Discharges, USEPA Environmental Research Laboratory, Athens, GA, Draft, July 1990.
- Baumgartner, D.J., W.E. Frick, P.J.W. Roberts, and C.A. Bodeen, Dilution Models for Effluent Discharges, USEPA, Pacific Ecosystems Branch, Newport, OR, 1993.
- Doneker, R.L. and G.H. Jirka, Cormix1: An Expert System for Hydrodynamic Mixing Zone Analysis of Conventional and Toxic Submerged Single Port Discharges, USEPA, Environmental Research Laboratory, Athens, GA, EPA/600-3-90/012, 1990.
- Ecology, Permit Writer's Manual, Water Quality Program, Department of Ecology, Olympia WA 98504, July 1994, including most current addenda.
- Ecology, Guidance for Conducting Mixing Zone Analyses, Permit Writer's Manual, (Appendix 6.1), Water Quality Program, Department of Ecology, Olympia, WA 98504, October 1996.
- Kilpatrick, F.A., and E.D. Cobb, Measurement of Discharge Using Tracers, Chapter A16, Techniques of Water-Resources Investigations of the USGS, Book 3, Application of Hydraulics, USGS, U.S. Department of the Interior, Reston, VA 1985.
- Wilson, J.F., E.D. Cobb, and F.A. Kilpatrick, Fluorometric Procedures for Dye Tracing, Chapter A12. Techniques of Water-Resources Investigations of the USGS, Book 3, Application of Hydraulics, USGS, U.S. Department of the Interior, Reston, VA 1986.

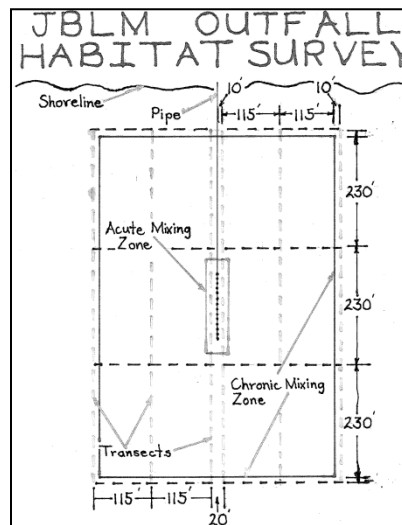
E. Outfall Evaluation and Habitat Survey

The permittee must inspect the submerged portion of the outfall line and diffuser to document its integrity and continued function once during the permit cycle. If conditions allow for a photographic verification, the permittee must include such verification in the subsequent report to be submitted to EPA with the next permit application.

A separate and concurrent habitat survey is also required as a result of formal consultation under the Endangered Species Act with NOAA's National Marine

Fisheries Service. The habitat survey must be conducted in the manner consistent with the survey discussion below (as designed by Dr. Jeff Fisher at NOAA), and a copy of the results must be submitted to NOAA within 3 months of the conclusion of the study at the address provided at the end of this section.

- As depicted in the image below, three transects are to be surveyed parallel to the outfall at 10, 125 and 240 ft increments on each side of the diffuser (i.e. six total). These transects can be surveyed using divers or underwater video with surface support. Transects are to begin 10 feet shore-ward of the chronic mixing zone and extend 10 feet past the water-ward (outer) boundary. The total length of the transects is 690 feet.



- Information to be collected while surveying along the transect lines at a height of 3-5 feet above the bottom:
 - elevation (depth);
 - approximate amount and species of macro algae;
 - substrate composition;
 - epibenthic biota;
 - number and species of fish; and
 - start and stop times (to calibrate against local tidal conditions during the survey – see online NOAA tide charts).
- The above information is to be recorded as a diver moves along the transect recording where along the transect substrate conditions change (e.g., from gravel to mud/silt) as well as where submerged aquatic vegetation is observed (and not). The resulting report should identify where habitat conditions or features change.
- Fish observations:

Divers should note in general the degree of visibility, and survey for fish to the limit that allows for confidence in identifying species. If numbers are high, semi-quantitative observations are to be recorded as follows:

- + = 1 to 10 fish;
- ++ = 10-25;
- +++ = 25-50;
- ++++ = 50 - 100;
- +++++ = > 100, or too numerous to count.

- Benthic invertebrate observations:

Divers should record what is observed within 1 meter either side of the transect line. If species are super abundant, the semi-quantitative system described above for fish should be used for invertebrates.

- If species numbers are low, divers should record all observations and separate the numbers in final data report within each strata along the transects to provide an index of abundance by depth and physical habitat characteristics observed.
- Submit the habitat survey to EPA with the next permit application. Submit a copy of the habitat survey within 3 months of the conclusion of the study to the following contact at NOAA Marine Fisheries:

c/o Jeffrey P. Fisher, PhD
National Marine Fisheries Service
510 Desmond Drive SE, Suite 107
Lacey, WA 98506

F. Quality Assurance Plan (QAP)

The permittee must develop a quality assurance plan (QAP) for all monitoring required by this permit. The permittee must submit written notice to EPA that the Plan has been developed and implemented within 180 days of the effective date of this permit. Any existing QAPs may be modified for compliance with this section.

1. The QAP must be designed to assist in the collection and analysis of samples collected in accordance with the permit terms and in explaining data anomalies when they occur.
2. Throughout all sample collection and analysis activities, the permittee must use the EPA-approved QA/QC and chain-of-custody procedures described in Requirements for Quality Assurance Project Plans (EPA/QA/R-5) and Guidance for Quality Assurance Project Plans (EPA/QA/G-5). The QAP must be prepared in the format that is specified in these documents. Acceptable alternative guidance, *Guidelines for Preparing Quality Assurance Project Plans for Environmental Studies* (Ecology Publication 04-03-030), is available at: <http://www.ecy.wa.gov/programs/eap/qa/docs/QAPPtool/Mod3%20Guidelines/GuidelinesforPreparingQAPPS.pdf>.

3. At a minimum, the QAP must include the following:
 - a) Details on the number of samples, type of sample containers, preservation of samples, holding times, analytical methods, analytical detection and quantitation limits for each target compound, type and number of quality assurance field samples, precision and accuracy requirements, sample preparation requirements, sample shipping methods, and laboratory data delivery requirements.
 - b) Map(s) indicating the location of each sampling point.
 - c) Qualification and training of personnel.
 - d) Name(s), address(es) and telephone number(s) of the laboratories used by or proposed to be used by the permittee.
4. The permittee must amend the QAP whenever there is a modification in sample collection, sample analysis, or other procedure addressed by the QAP.
5. Copies of the QAP must be kept on site and made available to EPA upon request.

G. Operation and Maintenance Plan

In addition to the requirements specified in Section IV.E. of this permit (Proper Operation and Maintenance), by **180 days** after the effective date of this permit, the permittee shall review and update its operation and maintenance (O&M) plan for the wastewater treatment facility. The update must address any changes in operation, maintenance, and/or BMPs. The permittee must provide written notice to EPA that the plan has been updated and implemented within **180 days** of the effective date of this permit. The plan shall be retained on site and made available upon request to EPA.

H. Infiltration and Inflow Report

The permittee shall conduct an infiltration and inflow evaluation in accordance with EPA guidance (Infiltration/Inflow Analysis and Project Certification, USEPA, May 1985). Plant monitoring records may be used to assess measurable infiltration and inflow. A report shall be prepared which summarizes any measurable infiltration and inflow. The report shall contain a plan and a schedule for identifying and correcting the sources of infiltration and inflow and shall clearly identify the significant contributing collection systems evaluated. Explanations are necessary for deviations from the schedule. The report shall be submitted by June 15 annually for the related control activities conducted since the previous annual report.

I. Feasibility Study and Engineering Report

The permittee must complete a feasibility study that considers alternatives for future wastewater treatment at Solo Point and must submit it to EPA for review. The study should include consideration of the current treatment plant's capacity limitations as well as projections of future flows and a plan and schedule for maintaining capacity. The plan and schedule for maintaining capacity must be sufficient to achieve the effluent limits and other conditions of this permit. This plan must identify any of the

following actions or any other actions necessary to meet the objective of maintaining capacity:

1. Analysis of the present design, including the introduction of any process modifications that would establish the ability of the existing facility to achieve the effluent limits and other requirements of this permit at specific levels in excess of the existing design criteria.
2. Reduction or elimination of excessive infiltration and inflow of uncontaminated ground and surface water into the sewer system.
3. Limitation on future sewer extensions or connections or additional waste loads.
4. Modification or expansion of facilities necessary to accommodate increased flow or waste load.
5. Reduction of industrial or commercial flows or waste loads to allow for increasing sanitary flow or waste load.

The permittee must also select the preferred alternative and prepare a subsequent engineering report based on chosen design alternative. Engineering documents must be submitted to EPA with sufficient time for review prior to construction.

J. Emergency Response and Public Notification Plan

1. The permittee must develop and implement an overflow emergency response and public notification plan that identifies measures to protect public health from overflows that may endanger health and unanticipated *bypasses* or *upsets* that exceed any effluent limitation in the permit. At a minimum the plan must include mechanisms to:
 - a) Ensure that the permittee is aware (to the greatest extent possible) of all overflows from portions of the collection system over which the permittee has ownership or operational control and unanticipated bypass or upset that exceed any effluent limitation in the permit;
 - b) Ensure appropriate responses including assurance that reports of an overflow or of an unanticipated bypass or upset that exceed any effluent limitation in the permit are immediately dispatched to appropriate personnel for investigation and response;
 - c) Ensure immediate notification to the public, health agencies, and other affected public entities (including public water systems). The overflow response plan must identify the public health and other officials who will receive immediate notification;
 - d) Ensure that appropriate personnel are aware of and follow the plan and are appropriately trained; and
 - e) Provide emergency operations.
2. The permittee must submit written notice to EPA that the plan has been developed and implemented within 180 days of the effective date of this permit. Any

existing emergency response and public notification plan may be modified for compliance with this section.

III. Monitoring, Recording and Reporting Requirements

A. Representative Sampling (Routine and Non-Routine Discharges)

Samples and measurements must be representative of the volume and nature of the monitored discharge.

In order to ensure that the effluent limits set forth in this permit are not violated at times other than when routine samples are taken, the permittee must collect additional samples at the appropriate outfall whenever any discharge occurs that may reasonably be expected to cause or contribute to a violation that is unlikely to be detected by a routine sample. The permittee must analyze the additional samples for those parameters limited in Part I.B. of this permit that are likely to be affected by the discharge.

The permittee must collect such additional samples as soon as the spill, discharge, or bypassed effluent reaches the outfall. The samples must be analyzed in accordance with paragraph III.C (“Monitoring Procedures”). The permittee must report all additional monitoring in accordance with paragraph III.D (“Additional Monitoring by Permittee”).

B. Reporting of Monitoring Results

The permittee must summarize monitoring results each month on the Discharge Monitoring Report (DMR) form (EPA No. 3320-1) or equivalent. The permittee must submit reports monthly, postmarked by the 10th day of the following month. The permittee must sign and certify all DMRs, and all other reports, in accordance with the requirements of Part V.E. of this permit (“Signatory Requirements”). The permittee must submit the legible originals of these documents to the Director, Office of Compliance and Enforcement at the following address:

US EPA Region 10
Attn: ICIS Data Entry Team
1200 Sixth Avenue, OCE-133
Seattle, Washington 98101

C. Monitoring Procedures

Monitoring must be conducted according to test procedures approved under 40 CFR 136, unless other test procedures have been specified in this permit or approved by EPA as an alternate test procedure under 40 CFR 136.5.

D. Additional Monitoring by Permittee

If the permittee monitors any pollutant more frequently than required by this permit, using test procedures approved under 40 CFR 136 or as specified in this permit, the permittee must include the results of this monitoring in the calculation and reporting of the data submitted in the DMR.

Upon request by EPA, the permittee must submit results of any other sampling, regardless of the test method used.

E. Records Contents

Records of monitoring information must include:

1. the date, exact place, and time of sampling or measurements;
2. the name(s) of the individual(s) who performed the sampling or measurements;
3. the date(s) analyses were performed;
4. the names of the individual(s) who performed the analyses;
5. the analytical techniques or methods used; and
6. the results of such analyses.

F. Retention of Records

The permittee must retain records of all monitoring information, including, all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this permit, copies of DMRs, a copy of the NPDES permit, and records of all data used to complete the application for this permit, for a period of at least five years from the date of the sample, measurement, report or application. This period may be extended by request of EPA at any time.

G. Twenty-four Hour Notice of Noncompliance Reporting

1. The permittee must report the following occurrences of noncompliance by telephone within 24 hours from the time the permittee becomes aware of the circumstances:
 - a) any noncompliance that may endanger health or the environment;
 - b) any unanticipated bypass that exceeds any effluent limitation in the permit (See Part IV.F., "Bypass of Treatment Facilities");
 - c) any upset that exceeds any effluent limitation in the permit (See Part IV.G., "Upset Conditions"); or
 - d) any violation of a maximum daily discharge limitation for any of the pollutants in Table 1 requiring 24-hour reporting.
 - e) any overflow prior to the treatment works over which the permittee has ownership or has operational control. An overflow is any spill, release or diversion of municipal sewage including:
 - (i) an overflow that results in a discharge to waters of the United States; and
 - (ii) an overflow of wastewater, including a wastewater backup into a building (other than a backup caused solely by a blockage or other malfunction in a privately owned sewer or building lateral) that does not reach waters of the United States.

The permittee must report any failure of the disinfection system, any collection system overflows which may reach surface waters or any plant bypass discharging to a shellfish area immediately to EPA, the Department of Ecology, and the Department of Health, Shellfish Program at the numbers listed below:

EPA NPDES Compliance Hotline: (206) 553-1846

Ecology Southwest Regional Office: (360) 407-6300

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

Shellfish Program: (360) 786-4183 (after business hours)

2. The permittee must also provide a written submission to EPA and Ecology within five days of the time that the permittee becomes aware of any event required to be reported under subpart 1 above. The written submission must contain:
 - a) a description of the noncompliance and its cause;
 - b) the period of noncompliance, including exact dates and times;
 - c) the estimated time noncompliance is expected to continue if it has not been corrected; and
 - d) steps taken or planned to reduce, eliminate, and prevent recurrence of the noncompliance.
 - e) if the noncompliance involves an overflow, the written submission must contain:
 - (i) The location of the overflow;
 - (ii) The receiving water (if there is one);
 - (iii) An estimate of the volume of the overflow;
 - (iv) A description of the sewer system component from which the release occurred (e.g., manhole, constructed overflow pipe, crack in pipe);
 - (v) The estimated date and time when the overflow began and stopped or will be stopped;
 - (vi) The cause or suspected cause of the overflow;
 - (vii) Steps taken or planned to reduce, eliminate, and prevent reoccurrence of the overflow and a schedule of major milestones for those steps;
 - (viii) An estimate of the number of persons who came into contact with wastewater from the overflow; and
 - (ix) Steps taken or planned to mitigate the impact(s) of the overflow and a schedule of major milestones for those steps.
3. The Director of the Office of Compliance and Enforcement may waive the written report on a case-by-case basis if the oral report has been received within 24 hours by the NPDES Compliance Hotline in Seattle, Washington, by telephone, (206) 553-1846. **However**, such a waiver would not remove the responsibility of the

permittee to submit the complete written submission to Ecology within 5 days as specified in subpart 2 above.

4. Reports must be submitted to the addresses in Part III.B (“Reporting of Monitoring Results”).

H. Other Noncompliance Reporting

The permittee must report all instances of noncompliance, not required to be reported within 24 hours, at the time that monitoring reports for Part III.B (“Reporting of Monitoring Results”) are submitted. The reports must contain the information listed in Part III.G.2 of this permit (“Twenty-four Hour Notice of Noncompliance Reporting”).

I. Public Notification

The permittee must immediately notify the public, health agencies and other affected entities (e.g., public water systems) of any *overflow* which the permittee owns or has operational control; or any unanticipated *bypass* or *upset* that exceeds any effluent limitation in the permit in accordance with the notification procedures developed in accordance with Part II.J.

J. Notice of New Introduction of Toxic Pollutants

The permittee must notify the Director of the Office of Water and Watersheds at EPA and Ecology in writing of:

1. Any new introduction of pollutants into the FOTW from an indirect discharger which would be subject to Sections 301 or 306 of the Act if it were directly discharging those pollutants; and
2. Any substantial change in the volume or character of pollutants being introduced into the FOTW by a source introducing pollutants into the FOTW at the time of issuance of the permit.
3. For the purposes of this section, adequate notice must include information on:
 - a) The quality and quantity of effluent to be introduced into the FOTW, and
 - b) Any anticipated impact of the change on the quantity or quality of effluent to be discharged from the FOTW.
4. The permittee must notify the Director of the Office of Water and Watersheds at the following address:

US EPA Region 10
Attn: NPDES Permits Unit Manager
1200 6th Avenue, OWW-130
Seattle, WA 98101

IV. Compliance Responsibilities

A. Duty to Comply

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

B. Penalties for Violations of Permit Conditions

5. **Civil and Administrative Penalties.** Pursuant to 40 CFR Part 19 and the Act, any person who violates section 301, 302, 306, 307, 308, 318 or 405 of the Act, or any permit condition or limitation implementing any such sections in a permit issued under section 402, or any requirement imposed in a pretreatment program approved under sections 402(a)(3) or 402(b)(8) of the Act, is subject to a civil penalty not to exceed the maximum amounts authorized by Section 309(d) of the Act and the Federal Civil Penalties Inflation Adjustment Act (28 U.S.C. § 2461 note) as amended by the Debt Collection Improvement Act (31 U.S.C. § 3701 note) (currently \$37,500 per day for each violation).
6. **Administrative Penalties.** Any person may be assessed an administrative penalty by the Administrator for violating section 301, 302, 306, 307, 308, 318 or 405 of this Act, or any permit condition or limitation implementing any of such sections in a permit issued under section 402 of this Act. Pursuant to 40 CFR 19 and the Act, administrative penalties for Class I violations are not to exceed the maximum amounts authorized by Section 309(g)(2)(A) of the Act and the Federal Civil Penalties Inflation Adjustment Act (28 U.S.C. § 2461 note) as amended by the Debt Collection Improvement Act (31 U.S.C. § 3701 note) (currently \$16,000 per violation, with the maximum amount of any Class I penalty assessed not to exceed \$37,500). Pursuant to 40 CFR 19 and the Act, penalties for Class II violations are not to exceed the maximum amounts authorized by Section 309(g)(2)(B) of the Act and the Federal Civil Penalties Inflation Adjustment Act (28 U.S.C. § 2461 note) as amended by the Debt Collection Improvement Act (31 U.S.C. § 3701 note) (currently \$16,000 per day for each day during which the violation continues, with the maximum amount of any Class II penalty not to exceed \$177,500).
7. **Criminal Penalties:**
 - a) **Negligent Violations.** The Act provides that any person who negligently violates sections 301, 302, 306, 307, 308, 318, or 405 of the Act, or any condition or limitation implementing any of such sections in a permit issued under section 402 of the Act, or any requirement imposed in a pretreatment program approved under section 402(a)(3) or 402(b)(8) of the Act, is subject to criminal penalties of \$2,500 to \$25,000 per day of violation, or imprisonment of not more than 1 year, or both. In the case of a second or subsequent conviction for a negligent violation, a person shall be subject to criminal penalties of not more than \$50,000 per day of violation, or by imprisonment of not more than 2 years, or both.

- b) **Knowing Violations.** Any person who knowingly violates such sections, or such conditions or limitations is subject to criminal penalties of \$5,000 to \$50,000 per day of violation, or imprisonment for not more than 3 years, or both. In the case of a second or subsequent conviction for a knowing violation, a person shall be subject to criminal penalties of not more than \$100,000 per day of violation, or imprisonment of not more than 6 years, or both.
- c) **Knowing Endangerment.** Any person who knowingly violates section 301, 302, 303, 306, 307, 308, 318 or 405 of the Act, or any permit condition or limitation implementing any of such sections in a permit issued under section 402 of the Act, and who knows at that time that he thereby places another person in imminent danger of death or serious bodily injury, shall, upon conviction, be subject to a fine of not more than \$250,000 or imprisonment of not more than 15 years, or both. In the case of a second or subsequent conviction for a knowing endangerment violation, a person shall be subject to a fine of not more than \$500,000 or by imprisonment of not more than 30 years, or both. An organization, as defined in section 309(c)(3)(B)(iii) of the Act, shall, upon conviction of violating the imminent danger provision, be subject to a fine of not more than \$1,000,000 and can be fined up to \$2,000,000 for second or subsequent convictions.
- d) **False Statements.** The 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, or by imprisonment for not more than 2 years, or both. If a conviction of a person is for a violation committed after a first conviction of such person under this paragraph, punishment is a fine of not more than \$20,000 per day of violation, or by imprisonment of not more than 4 years, or both. The Act further provides that any person who knowingly makes any false statement, representation, or certification in any record or other document submitted or required to be maintained under this permit, including monitoring reports or reports of compliance or non-compliance shall, upon conviction, be punished by a fine of not more than \$10,000 per violation, or by imprisonment for not more than 6 months per violation, or by both.

C. Need to Halt or Reduce Activity not a Defense

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

D. Duty to Mitigate

The permittee must take all reasonable steps to minimize or prevent any discharge in violation of this permit that has a reasonable likelihood of adversely affecting human health or the environment.

E. Proper Operation and Maintenance

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

This permitted facility must be operated by an operator certified by the state of Washington for at least a Class III plant. This operator must be in responsible charge of the day-to-day operation of the wastewater treatment plant. An operator certified for at least a Class II plant must be in charge during all regularly scheduled shifts.

F. Removed Substances

Collected screenings, grit, solids, biosolids, filter backwash, or other pollutants removed in the course of treatment or control of wastewaters shall be disposed of in a manner such as to prevent any pollutant from such materials from entering navigable waters.

G. Bypass of Treatment Facilities

1. Bypass not exceeding limitations. The permittee may allow any bypass to occur that does not cause effluent limitations to be exceeded, but only if it also is for essential maintenance to assure efficient operation. These bypasses are not subject to the provisions of paragraphs 2 and 3 of this Part.
2. Notice.
 - a) Anticipated bypass. If the permittee knows in advance of the need for a bypass, it must submit prior written notice, if possible at least 10 days before the date of the bypass.
 - b) Unanticipated bypass. The permittee must submit notice of an unanticipated bypass as required under Part III.G (“Twenty-four Hour Notice of Noncompliance Reporting”).
3. Prohibition of bypass.
 - a) Bypass is prohibited, and the Director of the Office of Compliance and Enforcement may take enforcement action against the permittee for a bypass, unless:
 - (i) The bypass was unavoidable to prevent loss of life, personal injury, or severe property damage;
 - (ii) There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate back-up equipment should have been installed in the exercise of reasonable engineering judgment to

prevent a bypass that occurred during normal periods of equipment downtime or preventive maintenance; and

(iii) The permittee submitted notices as required under paragraph 2 of this Part.

b) The Director of the Office of Compliance and Enforcement may approve an anticipated bypass, after considering its adverse effects, if the Director determines that it will meet the three conditions listed above in paragraph 3.a. of this Part.

H. Upset Conditions

1. Effect of an upset. An upset constitutes an affirmative defense to an action brought for noncompliance with such technology-based permit effluent limitations if the permittee meets the requirements of paragraph 2 of this Part. No determination made during administrative review of claims that noncompliance was caused by upset, and before an action for noncompliance, is final administrative action subject to judicial review.
2. Conditions necessary for a demonstration of upset. To establish the affirmative defense of upset, the permittee must demonstrate, through properly signed, contemporaneous operating logs, or other relevant evidence that:
 - a) An upset occurred and that the permittee can identify the cause(s) of the upset;
 - b) The permitted facility was at the time being properly operated;
 - c) The permittee submitted notice of the upset as required under Part III.G, "Twenty-four Hour Notice of Noncompliance Reporting;" and
 - d) The permittee complied with any remedial measures required under Part IV.D, "Duty to Mitigate."
3. Burden of proof. In any enforcement proceeding, the permittee seeking to establish the occurrence of an upset has the burden of proof.

I. Toxic Pollutants

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

J. Planned Changes

The permittee must give written notice to the Director of the Office of Water and Watersheds as specified in part III.I.4. and Ecology as soon as possible of any planned physical alterations or additions to the permitted facility whenever:

1. The alteration or addition to a permitted facility may meet one of the criteria for determining whether a facility is a new source as determined in 40 CFR 122.29(b); or

2. The alteration or addition could significantly change the nature or increase the quantity of pollutants discharged. This notification applies to pollutants that are not subject to effluent limitations in this permit.
3. The alteration or addition results in a significant change in the permittee's sludge use or disposal practices, and such alteration, addition, or change may justify the application of permit conditions that are different from or absent in the existing permit, including notification of additional use or disposal sites not reported during the permit application process or not reported pursuant to an approved land application site.

K. Anticipated Noncompliance

The permittee must give written advance notice to the Director of the Office of Compliance and Enforcement and Ecology of any planned changes in the permitted facility or activity that may result in noncompliance with this permit.

V. General Provisions

A. Permit Actions

This permit may be modified, revoked and reissued, or terminated for cause as specified in 40 CFR 122.62, 122.64, or 124.5. The filing of a request by the permittee for a permit modification, revocation and reissuance, termination, or a notification of planned changes or anticipated noncompliance does not stay any permit condition.

B. Duty to Reapply

If the permittee intends to continue an activity regulated by this permit after the expiration date of this permit, the permittee must apply for and obtain a new permit. In accordance with 40 CFR 122.21(d), and unless permission for the application to be submitted at a later date has been granted by the Regional Administrator, the permittee must submit a new application at least 180 days before the expiration date of this permit.

C. Duty to Provide Information

The permittee must furnish to EPA, within the time specified in the request, any information that EPA 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 furnish to EPA or Ecology, upon request, copies of records required to be kept by this permit.

D. Other Information

When the permittee becomes aware that it failed to submit any relevant facts in a permit application, or that it submitted incorrect information in a permit application or any report to EPA or Ecology, it must promptly submit the omitted facts or corrected information in writing.

E. Signatory Requirements

All applications, reports or information submitted to EPA must be signed and certified as follows.

1. All permit applications must be signed as follows:
 - a) For a municipality, state, federal, Indian tribe, or other public agency: by either a principal executive officer or ranking elected official.
2. All reports required by the permit and other information requested by EPA 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;
 - b) The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity, such as the position of plant manager, operator of a well or a well field, superintendent, position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters for the company; and
 - c) The written authorization is submitted to the Director of the Office of Compliance and Enforcement.
3. Changes to authorization. If an authorization under Part V.E.2 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 Part V.E.2. must be submitted to the Director of the Office of Compliance and Enforcement 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 Part 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 gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the 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.”

F. Availability of Reports

In accordance with 40 CFR 2, information submitted to EPA pursuant to this permit may be claimed as confidential by the permittee. In accordance with the Act, permit applications, permits and effluent data are not considered confidential. Any confidentiality claim must be asserted at the time of submission by stamping the words “confidential business information” on each page containing such information.

If no claim is made at the time of submission, EPA may make the information available to the public without further notice to the permittee. If a claim is asserted, the information will be treated in accordance with the procedures in 40 CFR 2, Subpart B (Public Information) and 41 Fed. Reg. 36902 through 36924 (September 1, 1976), as amended.

G. Inspection and Entry

The permittee must allow the Director of the Office of Compliance and Enforcement, EPA Region 10; Ecology; or an authorized representative (including an authorized contractor acting as a representative of the Administrator), upon the presentation of credentials and other documents as may be required by law, to:

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

H. Oil and Hazardous Substance Liability

Nothing in this permit shall be construed to preclude any legal action, or relieve the permittee from any responsibilities, liabilities, or penalties to that the permittee is or may be subject, under Section 311 of the Act.

I. Property Rights

The issuance of this permit does not convey any property rights of any sort, or any exclusive privileges, nor does it authorize any injury to persons or property or invasion of other private rights, nor any infringement of federal, tribal, state or local laws or regulations.

J. Transfers

This permit is not transferable to any person except after written notice to the Director of the Office of Water and Watersheds as specified in part III.I.4. The Director may require modification or revocation and reissuance of the permit to change the name of the permittee and incorporate such other requirements as may be necessary under the Act. (See 40 CFR 122.61; in some cases, modification or revocation and reissuance is mandatory).

K. State Laws

Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities, or penalties established pursuant to any applicable state law or regulation under authority preserved by Section 510 of the Act.

L. Reopener

This permit may be reopened to include any applicable standard for sewage sludge use or disposal promulgated under section 405(d) of the Act. The Director may modify or revoke and reissue the permit if the standard for sewage sludge use or disposal is more stringent than any requirements for sludge use or disposal in the permit, or controls a pollutant or practice not limited in the permit.

VI. Definitions

1-DMax or 1-day maximum temperature —The highest water temperature reached on any given day. This measure can be obtained using calibrated maximum/minimum thermometers or continuous monitoring probes having sampling intervals of thirty minutes or less.

7-DADMax or 7-day average of the daily maximum temperatures —The arithmetic average of seven consecutive measures of daily maximum temperatures. The 7-DADMax for any individual day is calculated by averaging that day's daily maximum temperature with the daily maximum temperatures of the three days prior and the three days after that date.

Act —The Clean Water Act (formerly referred to as either the Federal Water Pollution Control Act or the Federal Water Pollution Control Act Amendments of 1972), Pub. L. 92-500, as amended by Pub. L. 95-217, Pub. L. 95-576, Pub. L. 96-483, Pub. L. 97-117, and Pub. L. 100-4.

Acute Toxicity —The lethal effect of a compound on an organism that occurs in a short period of time, usually 48 to 96 hours.

Administrator —The Administrator of the EPA, or an authorized representative.

Ambient monitoring —Receiving water monitoring.

Ammonia —Ammonia is produced by the breakdown of nitrogenous materials in wastewater. Ammonia is toxic to aquatic organisms, exerts an oxygen demand, and contributes to eutrophication. It also increases the amount of chlorine needed to disinfect wastewater.

Annual Average —The sum of all values reported in a twelve month period divided by the number of values.

Annual Average Design Flow (AADF) —The average of the daily flow volumes anticipated to occur over a calendar year.

Average monthly discharge limitation —The highest allowable average of “daily discharges” over a calendar month, calculated as the sum of all “daily discharges” measured during a calendar month divided by the number of “daily discharges” measured during that month.

Average weekly discharge limitation —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.

Best Management Practices (BMPs) —Schedules of activities, prohibitions of practices, maintenance procedures, and other physical, structural and/or managerial practices to prevent or reduce the pollution of waters of the state. BMPs include treatment systems, operating procedures, and practices to control: plant site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw material storage. BMPs may be further categorized as operational, source control, erosion and sediment control, and treatment BMPs.

BOD₅ —Determining the Biochemical Oxygen Demand of an effluent is an indirect way of measuring the quantity of organic material present in an effluent that is utilized by bacteria. The BOD₅ is used in modeling to measure the reduction of dissolved oxygen in receiving waters after effluent is discharged. Stress caused by reduced dissolved oxygen levels makes organisms less competitive and less able to sustain their species in the aquatic environment. Although BOD is not a specific compound, it is defined as a conventional pollutant under the federal Clean Water Act.

Bypass —The intentional diversion of waste streams from any portion of a treatment facility.

Chronic Toxicity —The effect of a compound on an organism over a relatively long time, often 1/10 of an organism's lifespan or more. Chronic toxicity can measure survival, reproduction or growth rates, or other parameters to measure the toxic effects of a compound or combination of compounds.

Clean Water Act (CWA) —The Federal Water Pollution Control Act enacted by Public Law 92-500, as amended by Public Laws 95-217, 95-576, 96-483, 97-117; USC 1251 et seq.

Composite Sample —A mixture of grab samples collected at the same sampling point at different times, formed either by continuous sampling or by mixing discrete samples. May be "time-composite" (collected at constant time intervals) or "flow-proportional" (collected either as a constant sample volume at time intervals proportional to stream flow, or collected by increasing the volume of each aliquot as the flow increased while maintaining a constant time interval between the aliquots).

Continuous Monitoring —Uninterrupted, unless otherwise noted in the permit.

Critical Condition —The time during which the combination of receiving water and waste discharge conditions have the highest potential for causing toxicity in the receiving water environment. This situation usually occurs when the flow within a water body is low, thus, its ability to dilute effluent is reduced.

Daily discharge —The discharge of a pollutant measured during a calendar day or any 24-hour period that reasonably represents the calendar day for purposes of sampling. For pollutants with limitations expressed in units of mass, the “daily discharge” is calculated as the total mass of the pollutant discharged over the day. For pollutants with limitations expressed in other units of measurement, the “daily discharge” is calculated as the average measurement of the pollutant over the day.

Dilution Factor (DF) —A measure of the amount of mixing of effluent and receiving water that occurs at the boundary of the mixing zone. Expressed as the inverse of the percent effluent fraction, for example, a dilution factor of 10 means the effluent comprises 10% by volume and the receiving water 90%.

Director of the Office of Compliance and Enforcement —The Director of the Office of Compliance and Enforcement, EPA Region 10, or an authorized representative.

Director of the Office of Water and Watersheds —The Director of the Office of Water and Watersheds, EPA Region 10, or an authorized representative.

Discharge measurement —Measuring width, depth, and velocities using a tape or tagline, sounding equipment, and a current meter.

DMR —Discharge monitoring report.

Ecology —The Washington State Department of Ecology.

Fecal Coliform Bacteria —Fecal coliform bacteria are used as indicators of pathogenic bacteria in the effluent that are harmful to humans. Pathogenic bacteria in wastewater discharges are controlled by disinfecting the wastewater. The presence of high numbers of fecal coliform bacteria in a water body can indicate the recent release of untreated wastewater and/or the presence of animal feces.

Geometric Mean —The n th root of a product of n factors, or the antilogarithm of the arithmetic mean of the logarithms of the individual sample values.

Grab Sample —A single sample or measurement taken at a specific time or over as short a period of time as is feasible.

Industrial user, User, or Non-domestic user —A source of indirect discharge regulated under section 307(b), (c), or (d) of the Act. “Indirect discharge” means an introduction of pollutants from any non-domestic source regulated under section 307(b), (c), or (d) of the Act.

Industrial Wastewater —Water or liquid-carried waste from industrial or commercial processes, as distinct from domestic wastewater. These wastes may result from any process or activity of industry, manufacture, trade or business; from the development of any natural resource; or from animal operations such as feed lots, poultry houses, or dairies. The term includes contaminated storm water and, also, leachate from solid waste facilities.

Inhibition concentration, IC —A point estimate of the toxicant concentration that causes a given percent reduction (p) in a non-quantal biological measurement (e.g., reproduction or growth) calculated from a continuous model (e.g., Interpolation Method).

Interference —Defined in 40 CFR 403.3.

Local Limits —Specific limits to implement the general and specific prohibitions in 40 CFR § 403.5 (a) and (b).

Major Facility —A facility discharging to surface water with an EPA rating score of > 80 points based on such factors as flow volume, toxic pollutant potential, and public health impact.

Maximum Daily Discharge Limit —The highest allowable daily discharge of a pollutant measured during a calendar day or any 24-hour period that reasonably represents the calendar day for purposes of sampling. The daily discharge is calculated as the average measurement of the pollutant over the day.

Maximum Day Design Flow (MDDF) —The largest volume of flow anticipated to occur during a one-day period, expressed as a daily average.

Maximum Month Design Flow (MMDF) —The largest volume of flow anticipated to occur during a continuous 30-day period, expressed as a daily average.

Maximum Week Design Flow (MWDF) —The largest volume of flow anticipated to occur during a continuous 7-day period, expressed as a daily average.

Method Detection Level (MDL) —The minimum concentration of a substance that can be measured and reported with 99 percent confidence that the pollutant concentration is above zero and is determined from analysis of a sample in a given matrix containing the pollutant.

Minimum Level (ML) —The concentration at which the entire analytical system must give a recognizable signal and an acceptable calibration point. The ML is the concentration in a sample that is equivalent to the concentration of the lowest calibration standard analyzed by a specific analytical procedure, assuming that all the method-specified sample weights, volumes and processing steps have been followed.

Minor Facility —A facility discharging to surface water with an EPA rating score of < 80 points based on such factors as flow volume, toxic pollutant potential, and public health impact.

Mixing Zone —An area that surrounds an effluent discharge within which water quality criteria may be exceeded. The area of the authorized mixing zone is specified in a facility's permit and follows procedures outlined in state regulations (chapter 173-201A WAC).

National Pollutant Discharge Elimination System (NPDES) —The NPDES program is the federal wastewater permitting system for discharges to navigable waters of the United States. The national program covers the issuing, modifying, revoking and reissuing, terminating, monitoring and enforcing of permits... under sections 307, 402, 318, and 405 of the Clean Water Act.

NOEC —No observed effect concentration. The NOEC is the highest concentration of toxicant (e.g., effluent) to which organisms are exposed in a chronic toxicity test [full life-cycle or partial life-cycle (short term) test], that causes no observable adverse effects on the test organisms (i.e., the highest concentration of effluent in which the values for the observed responses are not statistically significantly different from the controls).

Pass Through —A discharge which exits the FOTW into waters of the United States in quantities or concentrations which, alone or in conjunction with a discharge or discharges from other sources, is a cause of a violation of any requirement of the FOTW's NPDES permit (including an increase in the magnitude or duration of a violation).

Peak Hour Design Flow (PHDF) —The largest volume of flow anticipated to occur during a one-hour period, expressed as a daily or hourly average.

Peak Instantaneous Design Flow (PIDF) —The maximum anticipated instantaneous flow.

pH —The pH of a liquid measures its acidity or alkalinity. It is the negative logarithm of the hydrogen ion concentration. A pH of 7 is defined as neutral, and large variations above or below this value are considered harmful to most aquatic life.

Pollutant —For the purposes of this permit is an organic substance, an inorganic substance, a combination of organic and inorganic substances, or pathogenic organisms that, after discharge and upon exposure, ingestion, inhalation, or assimilation into an organism either directly from the environment or indirectly by ingestion through the food-chain, could, on the basis of information available to the Administrator of EPA, cause death, disease, behavioral abnormalities, cancer, genetic mutations, physiological malfunctions (including malfunction in reproduction), or physical deformations in either organisms or offspring of the organisms.

QA/QC —Quality assurance/quality control.

Quantitation Level (QL) —The smallest detectable concentration of analyte greater than the Method Detection Limit (MDL) where the accuracy (precision & bias) achieves the objectives of the intended purpose.

Reasonable Potential —A reasonable potential to cause a water quality violation, or loss of sensitive and/or important habitat.

Regional Administrator —The Regional Administrator of Region 10 of the EPA, or the authorized representative of the Regional Administrator.

Severe property damage —Substantial physical damage to property, damage to the treatment facilities which causes 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.

Sewage Sludge —Solid, semi-solid, or liquid residue generated during the treatment of domestic sewage and/or a combination of domestic sewage and industrial waste of a liquid nature in a Treatment Works. Sewage sludge (biosolids) includes, but is not limited to, domestic septage; scum or solids removed in primary, secondary, or advanced wastewater treatment processes; and a material derived from biosolids. Biosolids does not include ash generated during the incineration of biosolids or grit and screenings generated during preliminary treatment of domestic sewage in a Treatment Works. These must be disposed of in accordance with 40 CFR Part 258.

Significant Industrial User—All industrial users subject to Categorical Pretreatment Standards under 40 CFR 403.6 and 40 CFR chapter I, subchapter N; and any other industrial user that: discharges an average of 25,000 gallons per day or more of process wastewater to the treatment works (excluding sanitary, noncontact cooling and boiler blowdown wastewater); contributes a process wastestream which makes up 5 percent or more of the average dry weather hydraulic or organic capacity of the treatment plant; or is designated as such by the Control Authority as defined in 40 CFR 403.12(a) on the basis that the industrial user has a reasonable potential for adversely affecting operation of the treatment works or for violating any pretreatment standard or requirement (in accordance with 40 CFR 403.8(f)(6)). Upon a finding that an industrial user meeting above the criteria has no reasonable potential for adversely affecting the operation of the treatment works or for violating any pretreatment standard or requirement, the Control Authority (as defined in 40 CFR 403.12(a)) may at any time, on its own initiative or in response to a petition received from an industrial user, and in accordance with 40 CFR 403.8(f)(6), determine that such industrial user is not a significant industrial user.

Solid waste -- All putrescible and non-putrescible solid and semi-solid wastes including, but not limited to, garbage, rubbish, ashes, industrial wastes, swill, sewage sludge, demolition and construction wastes, abandoned vehicles or parts thereof, contaminated soils and contaminated dredged material, and recyclable materials.

State Waters—Lakes, rivers, ponds, streams, inland waters, underground waters, salt waters, and all other surface waters and watercourses within the jurisdiction of the state of Washington.

Stormwater—That portion of precipitation that does not naturally percolate into the ground or evaporate, but flows via overland flow, interflow, pipes, and other features of a storm water drainage system into a defined surface water body, or a constructed infiltration facility.

Technology-based Effluent Limit—A permit limit that is based on the ability of a treatment method to reduce the pollutant.

Total Suspended Solids (TSS) —Total suspended solids is the particulate material in an effluent. Large quantities of TSS discharged to receiving waters may result in solids accumulation. Apart from any toxic effects attributable to substances leached out by water, suspended solids may kill fish, shellfish, and other aquatic organisms by causing abrasive injuries and by clogging the gills and respiratory passages of various aquatic fauna. Indirectly, suspended solids can screen out light and can promote and maintain the development of noxious conditions through oxygen depletion.

Treatment Works —Either federally owned, publicly owned, or privately owned devices or systems used to treat (including recycling and reclamation) either cosmetic sewage or a combination of cosmetic sewage and industrial waste of a liquid nature.

Upset —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, lack of preventative maintenance, or careless or improper operation.

Water Quality-based Effluent Limit —A limit on the concentration of an effluent parameter that is intended to prevent the concentration of that parameter from exceeding its water quality criterion after it is discharged into receiving waters.