

Permit No.: AK-000092-2
Application No.: AK-000092-2

United States Environmental Protection Agency
Region 10
1200 Sixth Avenue
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"),

KETCHIKAN PULP COMPANY

is authorized to discharge from its facility located in Ketchikan, Alaska, at the following
locations:

<u>Outfall</u>	<u>Receiving Water</u>	<u>Latitude</u>	<u>Longitude</u>
001	Ward Cove	55° 24' 15"N	131° 43' 45"W
SW2	Ward Cove	55° 24' 15"N	131° 43' 45"W
SW4	Ward Cove	55° 24' 15"N	131° 43' 45"W
SW5	Ward Cove	55° 24' 15"N	131° 43' 45"W
SW6	Ward Cove	55° 24' 15"N	131° 43' 45"W
SW7	Ward Cove	55° 24' 15"N	131° 43' 45"W
SW8	Ward Cove	55° 24' 15"N	131° 43' 45"W
SWL4	Unnamed Stream	55° 24' 10"N	131° 44' 10"W
SWL6B	Unnamed Stream	55° 24' 10"N	131° 44' 10"W
SWL11	Unnamed Stream	55° 24' 10"N	131° 44' 10"W
SWL12	Unnamed Stream	55° 24' 10"N	131° 44' 10"W

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

This permit shall become effective

This permit and the authorization to discharge shall expire at midnight,

Signed this day of

Director
Office of Water Region 10
U.S. Environmental Protection Agency

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I. EFFLUENT LIMITATIONS

- A. During the effective period of this permit, the permittee is authorized to discharge from outfalls 001, SW2, SW4, SW5, SW6, SW7, SW8, SWL4, SWL6B, SWL11, and SWL12 subject to the restrictions set forth herein. This permit does not authorize the discharge of any waste streams, including spills and other unintentional or non-routine discharges of pollutants, that are not part of the normal operation of the facility as disclosed in the permit application, or any pollutants that are not ordinarily present in such waste streams.
- B. During the effective period of this permit, the permittee is authorized to discharge the following non-stormwater wastestreams:
1. discharges from fire fighting activities
 2. fire hydrant flushings,
 3. potable water sources (including waterline flushings),
 4. irrigation drainage,
 5. lawn watering,
 6. routine external building washdown without detergents,
 7. pavement washwaters where spills or leaks of toxic or hazardous materials have not occurred (unless all spilled material has been removed) and where detergents are not used,
 8. intermittent spray down of lumber and wood product for the purpose of fire control where no chemical additives have been used,
 9. air conditioning condensate,
 10. compressor condensate, and
 11. springs, uncontaminated ground water, and foundation or footing drains where flows are not contaminated with process materials such as solvents.
- C. The permittee shall not discharge any process waste water from the sawmill, or associated debarking facilities.
- D. The permittee shall not add any solvents, detergents, or other chemicals to water used for demolition, maintenance, or construction without prior authorization from EPA.
- E. The permittee shall 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.

- F. The permittee shall limit discharges from outfall 001 as specified in Table 1 below. All figures represent maximum effluent limits, unless otherwise designated. The permittee shall comply with the following effluent limits 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 for Outfall 001		
Parameter	Effluent Limitation	
	Maximum Daily	Monthly Average
Chlorine, µg/l	62	43
Color, color units	320	220
Whole Effluent Toxicity, TU _c	31	21
Manganese, mg/l ¹	2.76	1.89
Flow, minimum, MGD	---	2.0
Flow, maximum, MGD	---	2.2

¹ Metals limits are expressed as total recoverable metals.

- G. The pH of the discharges from outfalls SW2, SW4, SW5, SW6, SW7, SW8, SWL6B, SWL11 and SWL12 shall not be less than 6.5 nor greater than 8.5 standard units at any time.
- H. The pH of the discharge from outfall SWL4 shall not vary more than 0.5 pH units from background, defined as the pH range measured at outfalls SWL9 and SWL10. For purposes of compliance, the permittee shall report the pH of each outfall and the pH difference (reported as “delta pH”).
- I. The permittee shall limit discharges from the sanitary waste treatment system as specified in Table 2 below. All figures represent maximum effluent limits. All limits shall be met at a point after treatment and prior to commingling with other waste streams. This point of compliance shall be designated outfall SAN1. The permittee shall comply with the following effluent limits at all times, regardless of the frequency of monitoring or reporting required by other provisions of this permit.

Table 2 - Effluent Limitations for SAN1		
Parameter	Effluent Limitation	
	Maximum Daily	Monthly Average
Biochemical oxygen demand, (BOD ₅), mg/l	45	30
Total suspended solids (TSS), mg/l	45	30
Fecal Coliform Bacteria, colonies/100 ml	400	200 ¹
Footnotes		
¹ The monthly average limitation for fecal coliform bacteria is based on the geometric mean of all samples collected during the calendar month		

II. BEST MANAGEMENT PRACTICES PLAN

- A. Purpose.** Through implementation of the BMP plan the permittee shall prevent or minimize the generation and the potential for the release of pollutants from the facility to the waters of the United States through normal operations and ancillary activities.
- B. BMP Plan.** The permittee shall implement the Best Management Practices (BMP) plan approved by EPA on September 27, 1995, and modified as appropriate in accordance with the requirements of this section.
- C. Objectives.** Any modifications to the BMP plan shall be consistent with the following objectives for the control of pollutants.
1. The number and quantity of pollutants and the toxicity of effluent generated, discharged or potentially discharged at the facility shall be minimized by the permittee to the extent feasible by managing each waste stream in the most appropriate manner.
 2. Under the BMP plan, and any Standard Operating Procedures (SOPs) included in the plan, the permittee shall ensure proper operation and maintenance of the treatment facilities.
 3. In reviewing or modifying the BMP plan, the permittee shall ensure that relevant actions identified in the following evaluations are incorporated in detail in the plan.

- a. Each facility component or system shall be examined for its waste minimization opportunities and its potential for causing a release of significant amounts of pollutants to waters of the United States due to equipment failure, improper operation, natural phenomena such as rain or snowfall, etc. The examination shall include all normal operations and ancillary activities including material storage areas, storm water, in-plant transfer, material handling and process handling areas, loading or unloading operations, spillage or leaks, sludge and waste disposal, and drainage from raw material storage.
- b. Where experience indicates a reasonable potential for equipment failure (e.g., a tank overflow or leakage), natural condition (e.g., precipitation), or other circumstances to result in significant amounts of pollutants reaching surface waters, the program should include a prediction of the direction, rate of flow and total quantity of pollutants which could be discharged from the facility as a result of each condition or circumstance.

D. Requirements. The BMP Plan shall be consistent with the objectives in Part C. above and the general guidance contained in the publication entitled "Best Management Practices Guidance Document" (U.S. EPA, 1981) or any subsequent revisions to the guidance document. The BMP Plan shall:

1. Be documented in narrative form, and shall include any necessary plot plans, drawings or maps, and shall be developed in accordance with good engineering practices. The BMP Plan shall be organized and written with the following structure:
 - a. Name and location of the facility.
 - b. Statement of BMP policy. This statement must include a statement of management commitment to provide the necessary financial, staff, equipment, and training resources to develop and implement the BMP plan on a continuing basis.
 - c. Structure, functions, and procedures of the Best Management Practices Committee.
 - d. Specific management practices and standard operating procedures to achieve the above objectives, including, but not limited to, the following:

- (i) modification of equipment, facilities, technology, processes, and procedures (including any construction schedules),
 - (ii) containment in areas where there is reasonable potential for tank overflow or leakage,
 - (iii) substitution of materials, and
 - (iv) improvement in management, inventory control, materials handling or general operational phases of the facility.
- e. Risk identification and assessment.
- f. Reporting of BMP incidents, including the conclusions reached by the boards of review in paragraph D.2., below. The reports shall include a description of the circumstances leading to the incident, corrective actions taken and recommended changes to operating and maintenance practices to prevent recurrence. These reports shall be submitted with the discharge monitoring report (DMR) for the month in which the incident occurred.
- g. Materials compatibility.
- h. Good housekeeping.
- i. Inspections and records, including visual inspection at least once per operating shift of equipment for leaks or potential leaks.
- j. Preventive maintenance and repair. The repair program should encompass immediate repair when possible, with tagging for repair during the next maintenance outage for those leaking equipment items that cannot be repaired during normal operations. The repair program should also include a tracking system to identify those equipment items where upgrade or replacement may be warranted based upon frequency and severity of leaks or failures.
- k. Security.
- l. Employee training including initial and refresher training of operators, maintenance personnel, and other technical and supervisory personnel. The refresher training should be conducted annually. A summary of the reports of BMP incidents

required in paragraph (f), above, shall be made part of the annual refresher course. In addition, all employees must receive basic safety training.

- m. Summary of the results of the stormwater inspection required in paragraph 4(c), below, including a report of any incidents of noncompliance. This report shall be signed in accordance with the requirements of Part V.E. of this permit and shall be kept on-site for a period of three years.
 - n. Prior review of any planned modifications to the facility to ensure that the requirements of the BMP plan are considered as part of the planned modifications, and that construction and supervisory personnel are aware of and take into account possible spills or releases of pollutants during construction.
2. Include the following provisions concerning BMP plan review:
- a. Be reviewed annually by plant engineering staff and the plant manager.
 - b. Be reviewed and endorsed annually by the permittee's BMP Committee.
 - c. Include a statement that the above reviews have been completed and that the BMP plan fulfills the requirements set forth in this permit. The statement shall be certified by the dated signatures of each BMP Committee member. This certified statement shall be submitted to EPA on or before January 31 of each year of operation under this permit.
 - d. Include certification that the facility is in compliance with the stormwater requirements in the BMP plan and the NPDES permit, and identifying any noncompliance. This certification shall be signed in accordance with the requirements of Part V.E. of this permit, and shall be kept on-site for a period of three years.
3. Include specific best management practices to meet the objectives identified in Part C. of this section, addressing each component or system capable of generating or causing a release of significant amounts of pollutants, and identifying specific preventive or remedial measures to be implemented.

4. Include specific best management practices or other measures which ensure that the BMP plan:
 - a. Ensures proper management of solid and hazardous waste in accordance with regulations promulgated under the Resource Conservation and Recovery Act (RCRA) and the Alaska Solid Waste Management Regulations (18 AAC 60). Management practices required under RCRA regulations shall be referenced in the BMP Plan.
 - b. Reflects requirements for Spill Prevention, Control, and Countermeasure (SPCC) plans under Section 311 of the Act and 40 CFR Part 112. The BMP plan may incorporate any part of such plans into the BMP Plan by reference.
 - c. Reflects requirements for storm water control under Section 402(p) of the Act and the regulations at 40 CFR 122.26 and 122.44, and otherwise eliminates to the extent practicable, contamination of storm water runoff. These requirements include, but are not limited to, an annual inspection of the facility site to identify areas contributing to a storm water discharge associated with industrial activity and to evaluate whether measures to reduce pollutant loadings identified in the BMP plan are adequate and properly implemented.
 - d. Prevents, to the extent feasible, entry of pollutants into the waste streams.
- E. **Documentation.** The permittee shall maintain a copy of the BMP plan at the facility and make it available to EPA or an authorized representative upon request. All offices of the permittee that are required to maintain a copy of the NPDES permit shall also maintain a copy of the BMP Plan.
- F. **BMP Plan Modification.** The permittee shall amend the BMP Plan whenever there is a change in the facility or in the operation of the facility which materially increases the generation of pollutants or their release or potential release to the receiving waters. The permittee shall also amend the Plan, as appropriate, when plant operations covered by the BMP Plan change. Any such changes to the BMP Plan shall be consistent with the objectives and specific requirements listed above. The permittee shall identify any necessary construction schedules in the amended Plan. All changes in the BMP Plan shall be reviewed by the plant engineering staff and plant manager and shall be reported to EPA in writing.

G. Modification for Ineffectiveness. At any time, if the BMP Plan proves to be ineffective in achieving the general objective of preventing and minimizing the generation of pollutants and their release and potential release to the receiving waters and/or the specific requirements above, the BMP Plan shall be modified to incorporate revised BMP requirements.

III. MONITORING, RECORDING AND REPORTING REQUIREMENTS

A. Effluent Monitoring Requirements

1. The permittee shall monitor all final effluent as specified in Table 3 below, subject to the other monitoring and reporting requirements set forth in this permit.

Table 3 - Final Effluent Monitoring Requirements			
Parameter	Outfall(s)	Monitoring Requirements	
		Sample Frequency	Sample Type
Chlorine, µg/l	001	Monthly	Grab
Color, color units	001	Monthly	24-hour Composite
	Stormwater ^{1,2}	3/year ³	Grab ³
Whole Effluent Toxicity, TU _c ⁴	001	Quarterly	24-hour Composite
Whole Effluent Toxicity, TU _a ⁴	001	2/year	24-hour Composite
Manganese, mg/l ⁵	001	Monthly	24-hour Composite
	Stormwater ^{1,2}	3/year ³	Grab ³
Effluent Flow, maximum daily, minimum daily, and average monthly, MGD	001	NA	Continuous Recording
	Stormwater ^{1,2}	3/year ³	Grab ³
Turbidity, NTU	001	Monthly	24-hour Composite

Table 3 - Final Effluent Monitoring Requirements			
Parameter	Outfall(s)	Monitoring Requirements	
		Sample Frequency	Sample Type
BOD ₅ , mg/l	001	Monthly	24-hour Composite
	Stormwater ⁶	3/year ³	Grab ³
pH, standard units	001	Monthly	Grab
	Stormwater ^{1,2}	3/year ³	Grab ³
	SWL9, SWL10	3/year ³	Grab ³
Arsenic, µg/l ⁵	Stormwater ^{1,2}	3/year ³	Grab ³
Cadmium, µg/l ⁵	001	Quarterly	Grab
Chromium III, µg/l	SWL6B, SWL12	3/year ³	Grab ³
Copper, µg/l ⁵	Stormwater ^{1,2}	3/year ³	Grab ³
Lead, µg/l ⁵	SWL6B, SWL12	3/year ³	Grab ³
Mercury, µg/l ⁵	SWL4, SWL6B, SWL11, SWL12	3/year ³	Grab ³
Selenium, µg/l ⁵	Stormwater ^{1,2}	3/year ³	Grab ³
Silver, µg/l ⁵	SWL4, SWL11, SWL12	3/year ³	Grab ³
Zinc, µg/l ⁵	Stormwater ^{1,2}	3/year ³	Grab ³
Chemical Oxygen Demand (COD), mg/l	Stormwater ^{1,2}	3/year ³	Grab ³
Total Suspended Solids (TSS), mg/l	Stormwater ^{1,2}	3/year ³	Grab ³
Oil & grease, mg/l	001	Monthly	Grab
	Stormwater ^{1,2}	3/year ³	Grab ³
Total Aromatic Hydrocarbons (TAH) ⁷ , µg/l	Stormwater ^{1,2}	3/year ³	Grab ³

Table 3 - Final Effluent Monitoring Requirements			
Parameter	Outfall(s)	Monitoring Requirements	
		Sample Frequency	Sample Type
Total Aqueous Hydrocarbons (TAqH) ⁸ , µg/l	Stormwater ^{1,2}	3/year ³	Grab ³
2,3,7,8-TCDD, ppq	SWL4	Quarterly	Grab ⁹
Hardness, mg/l CaCO ₃	SWL4, SWL6B, SWL11, SWL12	3/year ³	Grab ³
Footnotes ¹ Stormwater outfalls include SW2, SW4, SW5, SW6, SW7, SW8, SWL4, SWL6B, SWL11, and SWL12. ² Monitoring of SWL6B, SWL11, and SWL12 shall be conducted at a point prior to the stormwater mixing with receiving water. Monitoring of SWL4 shall be conducted in the unnamed stream at a point as close as practicable to the point of entry of stormwater. ³ See Part III.C. ⁴ See Part III.D. ⁵ Metals must be analyzed as total recoverable metals. ⁶ For BOD ₅ monitoring, all stormwater outfalls except SW4 and SW5 shall be monitored. ⁷ TAH is defined as those compounds measured by EPA Method 602 plus xylenes. ⁸ TAqH is defined as the sum those compounds measured by EPA Method 602 plus xylenes and EPA Method 610. ⁹ Aqueous and particulate fractions shall be extracted and analyzed separately as described in Section 11.4 of EPA method 1613B. Results for each fraction and the total sample shall be reported.			

2. The permittee shall monitor effluent from the sanitary waste treatment system (SAN1) as specified in Table 4 below, subject to the other monitoring and reporting requirements set forth in this permit. All samples shall be collected after treatment and prior to commingling with other waste streams.

Table 4-Sanitary Waste Monitoring Requirements		
Parameter	Monitoring Requirements	
	Sample Frequency	Sample Type
BOD ₅ , mg/l	Monthly	24-hour Composite
TSS, mg/l	Monthly	24-hour Composite
Fecal Coliform Bacteria, colonies/100 ml	Monthly	24-hour Composite

- For the first year of the permit term, the permittee shall monitor leachate from the landfill at locations LL01 and LL02 as specified in Table 5 below, subject to the other monitoring and reporting requirements set forth in this permit. All samples shall be collected prior to commingling with other waste streams.

Table 5-Landfill Leachate Monitoring Requirements		
Parameter	Monitoring Requirements	
	Sample Frequency	Sample Type
2,3,7,8-TCDD, ppq	Quarterly	Grab ¹
Copper, µg/l	Quarterly	Grab
Manganese, µg/l	Quarterly	Grab
Selenium, µg/l	Quarterly	Grab
Zinc, µg/l	Quarterly	Grab
Footnotes		
¹ Aqueous and particulate fractions shall be extracted and analyzed separately as described in Section 11.4 of EPA method 1613B. Results for each fraction and the total sample shall be reported.		

- For determining compliance with effluent limitations in Part I.F., the permittee shall achieve a method detection limit (MDL) no higher than 0.1 times the effluent limitation or the lowest MDL achievable using a method approved under 40 CFR Part 136, whichever is greater. Any

data below such MDL shall be reported to EPA as “<(MDL)”. For purposes of determining compliance with monthly average permit limits, the permittee shall use zero for any data below the MDL.

B. Ambient Monitoring

1. The permittee shall conduct quarterly hardness monitoring of the unnamed streams to which SWL4, SWL6B, SWL11, and SWL12 discharge. Results of this monitoring shall be reported with the January, April, July, and October DMRs. Results shall be reported as mg/l CaCO₃.
2. Within 60 days of the effective date of this permit, the permittee shall submit an ambient monitoring plan to ADEC for approval.
 - a. The monitoring plan shall describe sampling methods, locations, and quality assurance/quality control for the following parameters:
 - (i) Temperature;
 - (ii) Salinity;
 - (iii) Dissolved oxygen;
 - (iv) Turbidity; and
 - (v) pH.
 - b. Monitoring shall be monthly from October through July and twice per month during August and September.

C. Stormwater Monitoring Program

Stormwater monitoring shall be conducted as follows:

1. The permittee shall monitor at least three storm events per year. Samples shall be collected at least one week apart and during storm events that have been preceded by at least 48 hours of dry weather. Sampling shall be timed so that samples are collected during both the dry and wet seasons.
2. Samples shall be collected as soon as practicable after commencement of a storm event. Measurement or estimates of instantaneous and 24-hour flow during each sampling event shall be reported.

3. For the purpose of this subpart, a storm event shall mean the onset of precipitation sufficient to collect a sample from the stormwater outfall.

D. Whole Effluent Toxicity Testing Requirements

1. Chronic Testing

The permittee shall conduct chronic toxicity testing of the effluent from outfall 001 in accordance with subsections 1.a. through, 1.h. and subsection 3, below.

- a. The permittee shall conduct chronic toxicity testing once per quarter for the first year of the permit term with one echinoderm and one bivalve from the following organisms:

- (i) Sand dollar (*Dendraster excentricus*)
- (ii) Green, purple or red sea urchin fertilization test (*Strongylocentrotus droehbachiensis*, *Strongylocentrotus purpuratus*, *Strongylocentrotus franciscanus*, respectively)
- (iii) Pacific oyster (*Crassostrea gigas*)
- (iv) Bay mussel (*Mytilus edulis*)

Species shall be selected based on availability of organisms in spawning condition. At least one of the quarterly tests shall be conducted using Pacific oyster.

- b. Following the first year of testing, the permittee shall continue quarterly testing with the most sensitive organism from the first year of testing. If there is no time during a quarter that the most sensitive organism is in spawning condition, the permittee may substitute another species from the same taxonomic class. The most sensitive organism shall be determined by calculating the mean of the EC_{25} , measured in TUs, from each quarterly test for each organism. The organism with the highest mean EC_{25} , is defined as the most sensitive.
- c. A series of five dilutions and a control will be tested. The series shall include the instream waste concentration (IWC), two dilutions above the IWC, and two dilutions below the IWC. The IWC is 5.3 percent.
- d. The presence of chronic toxicity shall be estimated as specified in *Short-Term Methods for Estimating the Chronic Toxicity of*

Receiving Waters to West Coast Marine and Estuarine Organisms (EPA/600/R-95-136, August 1995).

- e. Results shall be reported in TUC, where $TUC = 100/EC_{25}$.
- f. All reporting, quality assurance criteria and statistical analyses used for chronic tests and reference toxicant tests shall be in accordance with *Short-Term Methods for Estimating the Chronic Toxicity of Receiving Waters to West Coast Marine and Estuarine Organisms* (EPA/600/R-95-136, August 1995) and individual test protocols. The report of results shall include all relevant information outlined in Section 10, Report Preparation, of the EPA document.
- g. Accelerated Testing
 - (i) If chronic toxicity is detected above the permit limits, the permittee shall conduct four more biweekly tests over an eight-week period. Accelerated testing must be initiated within two weeks of receipt of the test results which indicate an exceedence.
 - (ii) If the Permittee is able to adequately demonstrate through an evaluation of facility operations that the cause of the exceedence(s) is known and corrective actions have been immediately implemented, or in cases where additional test quality assurance/quality control is necessary, only one additional test is necessary. If toxicity is detected in this test, then Part III.D.1.g(i) shall apply.
 - (iii) If chronic toxicity is detected above the permit limits during accelerated testing, the permittee must initiate a toxicity reduction evaluation (TRE) in accordance with EPA/600/2-88/070 within fifteen days of the exceedence.
 - (iv) If none of the four tests indicates toxicity, the permittee may return to the normal testing frequency.
- h. Toxicity Identification Evaluation (TIE).
 - (i) If chronic toxicity exceeds the permit limits in any two of the four biweekly tests, the permittee shall initiate a TIE in accordance with EPA/600/6-91/005F (Phase I), EPA/600/R-92/080 (Phase II), and EPA-600/R-92/081 (Phase III).

- (ii) If a TIE is triggered prior to completion of the accelerated testing, the accelerated testing schedule may be terminated, or used as necessary in performing the TIE.

2. Acute Tests

The permittee shall conduct two acute toxicity tests per year of the effluent from outfall 001 in accordance with subsections a. through g., and subsection 3, below.

- a. The permittee shall conduct 96-hour static renewal or flow-through tests for estimating toxicity of the effluent to the inland silverside (*Menidia beryllina*).
- b. The permittee shall conduct testing according to the guidelines set forth in *Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms* (Fourth Edition), EPA/600/4-90/027F.
- c. A series of five dilutions and a control will be tested, with a minimum of four replicates per concentration. Salinity adjustments shall be made as necessary. Based on available data, dilutions shall be selected that will bracket the expected LC₅₀ of the effluent.
- d. The presence of acute toxicity shall be estimated as specified in *Methods for Measuring the Acute Toxicity of Effluents to Freshwater and Marine Organisms* (Fourth Edition), EPA/600-4-90/027F.
- e. Test results shall be reported in acute toxic units. In addition, the permittee shall report the LC₅₀ of the effluent in control water, as well as the 95 percent confidence limits of the LC₅₀, calculated using an internally consistent scheme based on the moving average angle, graphical, or probit method, as appropriate.
- f. In conducting acute tests, the permittee shall also report responses that could reasonably be expected to result in ecological death (e.g., cessation of swimming behavior) and, if possible, the permittee shall determine a 96-hour EC₅₀.
- g. All reporting, quality assurance criteria and statistical analyses used for acute tests shall be in accordance with *Methods for Measuring the Acute Toxicity of Effluents to Freshwater and*

Marine Organisms (Fourth Edition), EPA/600-4-90/027F. The report of acute test results shall include all relevant information outlined in Section 12 of this document.

3. Both Types of Toxicity Tests

This subsection applies to the toxicity tests required in subsections 1 and 2 of this Part.

- a. Testing shall be conducted on 24-hour composite samples of effluent. In addition, a split of each sample collected shall be analyzed for the chemical and physical parameters required for outfall 001 in Part III.A, above. When the timing of sample collection coincides with that of the sampling required in Part III.A, analysis of the split sample will fulfill the requirements of Part III.A. as well.
- b. In addition to those quality assurance measures specified in the methodologies, the following quality assurance procedures shall be followed:
 - (i) If organisms are not cultured by the laboratory conducting the tests, concurrent testing with reference toxicants shall be conducted. Where organisms are cultured by the laboratory conducting the tests, monthly reference toxicant testing is sufficient.
 - (ii) If either of the reference toxicant tests or the effluent tests do not meet all test acceptability criteria as specified in the test methods manual, the permittee must re-sample and re-test as soon as possible.
 - (iii) To the extent practicable, control and dilution water must be receiving water. If the dilution water used is different from the culture water, a second control, using culture water shall also be used. For purposes of this paragraph, "receiving water" means water collected in Ward Cove in an area outside of the influence of the mixing zone for the permittee's discharge.
- c. The permittee shall submit the results of the toxicity tests in TUs with the DMR for the month in which the test is conducted. The full report for each test shall be submitted by the end of the month in which the DMR is submitted. Along with the results, the

permittee shall include the dates of sample collection and initiation of each toxicity test and the flow rate at the time of sample collection.

E. Quality Assurance Project Plan (QAPP)

The Permittee shall develop a quality assurance project plan (QAPP) for all monitoring under this permit. The plan shall be submitted to EPA for review within sixty days of the effective date of this permit.

1. The QAPP shall be designed to assist in planning for the collection and analysis of environmental samples in support of the permit and in explaining data anomalies when they occur.

Throughout all sample collection and analysis activities, the permittee shall use the EPA-approved quality assurance, quality control, and chain-of-custody procedures described in *Requirements for Quality Project Plans (EPA/QA/R-5)* and *Guidance for Quality Project Plans (EPA/QA/G-5)*. The QAPP shall be prepared in the format which is specified in these documents.

2. The plan shall include the following:
 - a. Details on the number of samples, detailed sampling locations, type of sample containers, preservation of samples, holding times, analytical detection and quantitation limits (or method detection level and minimum level for metals) for each target compound, analytical methods, type and number of quality assurance field samples, precision and accuracy requirements, sample preparation requirements, sample shipping methods, and laboratory data delivery requirements.
 - b. Qualification and training of personnel
 - c. Specifications for the collection and analysis of quality assurance samples for each sampling event, such as (1) matrix spiked (MS) and duplicate samples on 10 percent of samples; and (2) analysis of Field Transfer Blanks (sample blanks) to identify contamination of samples.
 - d. Name(s), address(es) and telephone number(s) of the laboratories, used by or proposed to be used by the permittee.

3. The permittee shall amend the QAPP, whenever there is a modification in the sample collection, the sample analysis, or whenever conditions or requirements of the QAPP change.
4. Copies of the QAPP shall be kept on site and shall be made available to EPA and/or ADEC upon request.

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

The permittee shall collect all effluent samples from the effluent stream prior to discharge into the receiving waters. Samples and measurements shall 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 shall collect additional samples at the appropriate outfall(s) 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 shall analyze the additional samples for those parameters limited in Part I.F. of this permit that are likely to be affected by the discharge.

The permittee shall collect such additional samples during and after the period of the best reasonable estimate of when such discharge may be expected to pass through the outfall. The results of all samples collected during the 24-hour period representing the calendar day for sampling purposes shall be averaged in proportion to the estimated flow before, during, and after the period in which such discharge is believed to have occurred. The samples shall be analyzed in accordance with Part III.H., below. The permittee shall report all additional monitoring in accordance with Part III.I., below.

- G. Reporting of Monitoring Results.** The permittee shall summarize monitoring results each month on the Discharge Monitoring Report (DMR) form (EPA No. 3320-1). The permittee shall submit reports monthly, postmarked by the 20th day of the following month. The permittee shall 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 shall submit the legible originals of these documents to the Director, Office of Water, with copies to ADEC at the following addresses:

United States Environmental Protection Agency
Region 10
1200 Sixth Avenue, OW-133
Seattle, Washington 98101

Alaska Department of Environmental Conservation
Division of Air and Water Quality
410 Willoughby Avenue
Juneau, Alaska 99801

Alaska Department of Environmental Conservation
540 Water St., Suite 203
Ketchikan, Alaska 99901

- H. 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.
- I. 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 shall include the results of this monitoring in the calculation and reporting of the data submitted in the DMR. The permittee shall indicate on the DMR whenever it has performed additional monitoring, and shall explain why it performed such monitoring.

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

- J. Records Contents.** All effluent monitoring records shall bear the handwritten signature of the person who prepared them. In addition, all records of monitoring information shall include:
1. the date, exact place, and time of sampling or measurements;
 2. the names 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.

K. Retention of Records. The permittee shall retain records of all monitoring information, including, but not limited to, 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, or for the term of this permit, whichever is longer. This period may be extended by request of the Director or ADEC at any time.

L. Twenty-four Hour Notice of Noncompliance Reporting

1. The permittee shall 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 results in or contributes to an exceedence of any effluent limitation in the permit (See Part IV.G., "Bypass of Treatment Facilities");
 - c. any upset that results in or contributes to an exceedence of any effluent limitation in the permit (See Part IV.H., "Upset Conditions"); or
 - d. any violation of a maximum daily discharge limitation for any of the pollutants listed in the permit.
2. The permittee shall also provide a written submission 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 shall 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. the results of any monitoring data required under Part III.F., above.

3. The Director may, at his sole discretion, 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.
4. Reports shall be submitted to the addresses in Part III.G. ("Reporting of Monitoring Results").

M. Other Noncompliance Reporting. The permittee shall report all instances of noncompliance, not required to be reported within 24 hours, at the time that monitoring reports for Part III.G. are submitted. The reports shall contain the information listed in Part III.L.2. of this permit.

N. Changes in Discharge of Toxic Substances. The permittee shall notify the Director and ADEC as soon as it knows, or has reason to believe:

1. That any activity has occurred or will occur that would result in the discharge, on a routine or frequent basis, of any toxic pollutant that is not limited in the permit, if that discharge may reasonably be expected to exceed the highest of the following "notification levels":
 - a. One hundred micrograms per liter (100 ug/l);
 - b. Two hundred micrograms per liter (200 ug/l) for acrolein and acrylonitrile; five hundred micrograms per liter (500 ug/l) for 2,4-dinitrophenol and for 2-methyl-4, 6-dinitrophenol; and one milligram per liter (1 mg/l) for antimony;
 - c. Five (5) times the maximum concentration value reported for that pollutant in the permit application in accordance with 40 CFR 122.21(g)(7); or
 - d. The level established by the Director in accordance with 40 CFR 122.44(f).
2. That any activity has occurred or will occur that would result in any discharge, on a non-routine or infrequent basis, of any toxic pollutant that is not limited in the permit, if that discharge may reasonably be expected to exceed the highest of the following "notification levels":
 - a. Five hundred micrograms per liter (500 ug/l);

- b. One milligram per liter (1 mg/l) for antimony;
- c. Ten (10) times the maximum concentration value reported for that pollutant in the permit application in accordance with 40 CFR 122.21(g)(7); or
- d. The level established by the Director in accordance with 40 CFR 122.44(f).

IV. COMPLIANCE RESPONSIBILITIES

A. Duty to Comply. The permittee shall 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. The permittee shall give reasonable advance notice to the Director and ADEC of any planned changes in the permitted facility or activity that may result in noncompliance with permit requirements.

B. Penalties for Violations of Permit Conditions

1. **Civil and Administrative Penalties.** Any person who violates a permit condition implementing Sections 301, 302, 306, 307, 308, 318, or 405 of the Act shall be subject to a civil or administrative penalty, not to exceed the maximum amounts specified in Sections 309(d) and 309(g) of the Act.
2. **Criminal Penalties:**
 - a. **Negligent Violations.** Any person who negligently violates a permit condition implementing Sections 301, 302, 306, 307, 308, 318, or 405 of the Act shall, upon conviction, be punished by a fine and/or imprisonment as specified in Section 309(c)(1) of the Act.
 - b. **Knowing Violations.** Any person who knowingly violates a permit condition implementing Sections 301, 302, 306, 307, 308, 318, or 405 of the Act shall, upon conviction, be punished by a fine and/or imprisonment as specified in Section 309(c)(2) of the Act.
 - c. **Knowing Endangerment.** Any person who knowingly violates a permit condition implementing Sections 301, 302, 303, 306, 307, 308, 318, or 405 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 and/or imprisonment as specified in Section 309(c)(3) of the Act.

- d. **False Statements.** Any person who knowingly makes any false material statement, representation, or certification in any application, record, report, plan, or other document filed or required to be maintained under this Act or who knowingly falsifies, tampers with, or renders inaccurate any monitoring device or method required to be maintained under this Act, shall, upon conviction, be punished by a fine and/or imprisonment as specified in Section 309(c)(4) of the Act.

Except as provided in permit conditions in Part IV.G., ("Bypass of Treatment Facilities") and Part IV.H., ("Upset Conditions"), nothing in this permit shall be construed to relieve the permittee of the civil or criminal penalties for noncompliance.

- 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 shall 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 shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) that are installed or used by the permittee to achieve compliance with the conditions of this permit. Proper operation and maintenance also includes adequate laboratory controls and appropriate quality assurance procedures. This provision requires the operation of backup or auxiliary facilities or similar systems only when the operation is necessary to achieve compliance with the conditions of the permit.
- F. Removed Substances.** Solids, sludges, or other pollutants removed in the course of treatment or control of water and wastewaters shall be disposed of in a manner such as to prevent any pollutant from such materials from entering navigable waters, except as specifically authorized in Part I.

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 shall submit prior notice, if possible at least 10 days before the date of the bypass.
 - b. Unanticipated bypass. The permittee shall submit notice of an unanticipated bypass as required under Part III.L. ("Twenty-four Hour Notice of Noncompliance Reporting").
3. Prohibition of bypass.
 - a. Bypass is prohibited, and the Director or ADEC may take enforcement action against the permittee for a bypass, unless:
 - (1) The bypass was unavoidable to prevent loss of life, personal injury, or severe property damage;
 - (2) There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate backup equipment shall 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
 - (3) The permittee submitted notices as required under paragraph 2 of this Part.
 - b. The Director and ADEC may approve an anticipated bypass, after considering its adverse effects, if the Director and ADEC determine 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 shall 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.L., "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 shall 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 shall give notice to the Director and ADEC 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 subject neither to effluent limitations in the permit, nor to notification requirements under Part III.N.

The permittee shall give notice to the Director and ADEC as soon as possible of any planned changes in process or chemical use whenever such change could significantly change the nature or increase the quantity of pollutants discharged.

- K. Anticipated Noncompliance.** The permittee shall also give advance notice to the Director and ADEC 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. The filing of a request by the permittee for a permit modification, revocation and reissuance, or 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. The application shall be submitted at least 180 days before the expiration date of this permit.
- C. Duty to Provide Information.** The permittee shall furnish to the Director and ADEC, within the time specified in the request, any information that the Director or ADEC 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 shall also furnish to the Director or ADEC, 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 the Director or ADEC, it shall promptly submit the omitted facts or corrected information.
- E. Signatory Requirements.** All applications, reports or information submitted to the Director and ADEC shall be signed and certified.

1. All permit applications shall be signed as follows:
 - a. For a corporation: by a responsible corporate officer.
 - b. For a partnership or sole proprietorship: by a general partner or the proprietor, respectively.
 - c. For a municipality, state, federal, 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 the Director or ADEC shall be signed by a person described above or by a duly authorized representative of that person. A person is a duly authorized representative only if:
 - a. The authorization is made in writing by a person described above and submitted to the Director and ADEC, and
 - 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.
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 Regional Administrator and ADEC 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 shall 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.** Except for data determined to be confidential under 40 CFR 2, all reports prepared in accordance with this permit shall be available for public inspection at the offices of the Director and ADEC. As required by the Act, permit applications, permits and effluent data shall not be considered confidential.
- G. Inspection and Entry.** The permittee shall allow the Director, ADEC, 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 the institution of any legal action or relieve the permittee from any responsibilities, liabilities, or penalties to which 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 private property or any invasion of personal rights, nor any infringement of federal, state or local laws or regulations.
- J. Severability.** The provisions of this permit are severable. If any provision of this permit, or the application of any provision of this permit to any circumstance, is held invalid, the application of such provision to

other circumstances, and the remainder of this permit, shall not be affected thereby.

- K. Transfers.** This permit may be automatically transferred to a new permittee if:
1. The current permittee notifies the Director at least 30 days in advance of the proposed transfer date;
 2. The notice includes a written agreement between the existing and new permittees containing a specific date for transfer of permit responsibility, coverage, and liability between them; and
 3. The Director does not notify the existing permittee and the proposed new permittee of his or her intent to modify, or revoke and reissue the permit.

If the notice described in paragraph 3 above is not received, the transfer is effective on the date specified in the agreement mentioned in paragraph 2 above.

- L. 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.
- M. Reopener Clause.** This permit is subject to modification, revocation and reissuance, or termination at the request of any interested person (including the permittee) or upon EPA initiative. However, permits may only be modified, revoked or reissued, or terminated for the reasons specified in 40 CFR §122.62 or 122.64, and 40 CFR §124.5. This includes new information which was not available at the time of permit issuance and would have justified the application of different permit conditions at the time of issuance, including but not limited to future monitoring results, water quality studies, waterbody recovery plans, or wasteload allocations. All requests for permit modification must be addressed to EPA in writing and shall contain facts or reasons supporting the request.

VI. SPECIAL CONDITIONS

KPC will negotiate in good faith to enter into a memorandum of agreement (MOA) with ADEC to complete a waterbody recovery plan and TMDL for Ward

Cove that will result in a waste load allocation for all pollutants of concern resulting from activities associated with KPC facilities. The MOA will identify at a minimum:

- A. KPC and agency financial and staff resources to complete the work;
- B. A schedule for completion of the work; and
- C. A description of how the following will be accomplished:
 - 1. Selection of pollutants of concern;
 - 2. Estimation of the waterbody assimilative capacity;
 - 3. Estimation of pollution from all sources in the waterbody;
 - 4. Predictive analysis of pollution in the waterbody and determination of total allowable pollution load; and
 - 5. Allocation (with a margin of safety) of the allowable pollution among the different pollution sources in a manner that water quality standards are achieved.

VII. DEFINITIONS

- 1. Acute toxic unit (TU_a) is a measure of acute toxicity. The number of acute toxic units in the effluent is calculated as $100/LC_{50}$, where the LC_{50} is measured in percent effluent.
- 2. ADEC means the Alaska Department of Environmental Conservation.
- 3. Administrator means the Administrator of the EPA, or an authorized representative.
- 4. Bypass means the intentional diversion of waste streams from any portion of a treatment facility.
- 5. Chronic toxic unit (TU_c) is a measure of chronic toxicity. The number of chronic toxic units in the effluent is calculated as $100/EC_{25}$, where the EC_{25} is measured in percent effluent.
- 6. Daily discharge means the discharge of a pollutant 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 the total mass of the pollutant discharged over the day. For pollutants with limitations expressed in concentration, rates, or other units, the daily discharge is the average measurement of the pollutant over the day.

7. Daily maximum. See Maximum daily limitation.
8. Director means the Director of the Office of Water, EPA, or an authorized representative.
9. DMR means discharge monitoring report.
10. EC₂₅ is a point estimate of the effluent concentration that would cause an observable adverse effect (such as death, immobilization, or serious incapacitation) in 25 percent of the test organisms exposed.
11. EPA means the United States Environmental Protection Agency.
12. Final effluent means effluent downstream from the last treatment unit and at, or upstream from, the point where a permitted outfall enters navigable waters, and through which all waste streams pass that are discharged from the outfall.
13. Geometric mean is the nth root of the product of n data.
14. Grab sample is a single sample or measurement taken at a specific time or over as short a period of time as is feasible.
15. LC₅₀ is a point estimate of the effluent concentration that is lethal to 50 percent of the test organisms during a specified period.
16. Maximum daily limitation or daily maximum limitation means the highest allowable daily discharge.
17. Method detection limit (MDL) means the minimum concentration of an analyte that can be measured and reported with 99 percent confidence that the analyte concentration is greater than zero as determined by a specific laboratory method (40 CFR 136).
18. Monthly average means the 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. For fecal coliform bacteria, the monthly average must be calculated as the geometric mean of all samples collected during the calendar month.
19. Process waste water means any water which, during manufacturing or processing, comes into direct contact with or results from the production or use of any raw material, intermediate product, finished product,

byproduct, or waste product. This term does not include noncontact cooling water, material storage yard runoff, boiler blowdown, or fire control water.

20. Regional Administrator means the EPA Region 10 Regional Administrator, or an authorized representative.
21. Severe property damage means substantial physical damage to property, damage to the treatment facilities that causes them to become inoperable, or substantial and permanent loss of natural resources that can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production.
22. Sludge means settled solids.
23. Stormwater outfall means a conveyance for stormwater runoff or snowmelt.
24. 24-hour composite sample shall mean a flow-proportioned mixture of not less than 8 discrete aliquots. Each aliquot shall be a grab sample of not less than 100 ml and shall be collected and stored in accordance with procedures prescribed in the most recent edition of *Standard Methods for the Examination of Water and Wastewater*.
25. Upset means an exceptional incident in which there is unintentional and temporary noncompliance with technology-based permit effluent limitations because of factors beyond the reasonable control of the permittee. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation.
26. Waste stream means any non-de minimus stream of pollutants within the permittee's facility that enters any permitted outfall or navigable waters. This includes spills and other unintentional, non-routine or unanticipated discharges.