

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
Region 10  
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",

**CONOCOPHILLIPS ALASKA, INC.**  
700 G STREET  
P.O. BOX 100360  
ANCHORAGE, ALASKA 99510

is authorized to discharge from

**KUPARUK SEAWATER TREATMENT PLANT (STP)**,  
a facility classified as SIC No. 1311 and  
located on the North Slope, Alaska

to

**SIMPSON LAGOON** of the Alaskan Beaufort Sea (the "receiving waters"),  
at Latitude 70° 30' 45"N and Longitude 149° 51' 30"W,  
and in USGS Hydrologic Unit No. 19060401

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

This permit shall become effective on **March 1, 2011**

This permit and the authorization to discharge shall expire at midnight, on **March 1, 2016**

**THE PERMITTEE SHALL REAPPLY FOR A PERMIT REISSUANCE ON OR BEFORE, September 3, 2015** (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 28th day of January, 2011.

/s/ \_\_\_\_\_  
Michael Bussell, Director  
Office of Water and Watersheds

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**I. SPECIFIC LIMITATIONS AND MONITORING REQUIREMENTS**

**A. DISCHARGE AUTHORIZATION**

During the term of the permit, the permittee is authorized to discharge wastewater from the facility through Outfalls 001 and 002 to Simpson Lagoon of the Beaufort Sea, 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 REQUIREMENTS**

1. The permittee must limit and monitor discharges from Discharges 001 and 002 as specified in Table 1. The values represent maximum effluent limits unless otherwise indicated. The permittee must comply with the effluent limits in the table at all times unless otherwise indicated, regardless of the frequency of monitoring or reporting required by other provisions of this permit.

<b>TABLE 1: Effluent Limits and Monitoring Requirements</b>				
<b>Parameter</b>	<b>Average Monthly Limit (AML)</b>	<b>Maximum Daily Limit (MDL)</b>	<b>Sampling Method and Frequency</b>	<b>Reported Values</b>
<b>Outfall 001 – Strainer/Filter Backwash System</b>				
<b>Flow</b>	--	2.2 MGD	Calculation or meter, daily	Average monthly and maximum daily, MGD
<b>Total Residual Chlorine (TRC)<sup>1</sup></b>	--	--	Calculation or grab, daily	Average monthly and maximum daily, µg/L
<b>pH</b>	--	no more than 9.0, no less than 6.0	Grab or meter, weekly	Minimum and maximum monthly values, standard units
<b>Temperature- Open Water Conditions</b>	--	Not to exceed 16°C above ambient	Recording or meter, daily	Maximum daily, °C
<b>Temperature- Under Ice Conditions</b>		Not to exceed 12°C above ambient		
<b>Ambient Temperature<sup>2</sup></b>	--	--	Recording or meter, daily	Maximum daily, °C
<b>Whole Effluent Toxicity (WET)<sup>3</sup></b>	--	--	24-Hour composite, quarterly <sup>4</sup>	Report, TU <sub>C</sub>

NOTES: <sup>1</sup> Monitoring required only when chlorination/dechlorination chemicals are used in the seawater treatment process upstream of the filters or in the filter backwash system.

<sup>2</sup> Monitor outside the edge of the mixing zone. This sample can be taken at the seawater intake bay.

<sup>3</sup> Applicable when biotreatment is conducted upstream of the filters or when chlorination/dechlorination agents are used upstream of the filters or in the filter backwash system.

<b>TABLE 1 (CONT): Effluent Limits and Monitoring Requirements</b>				
<b>Parameter</b>	<b>Average Monthly Limit (AML)</b>	<b>Maximum Daily Limit (MDL)</b>	<b>Sampling Method and Frequency</b>	<b>Reported Values</b>
<b>Outfall 002<sup>5</sup> – Marine Life Return System</b>				
<b>Flow</b>	--	--	Calculation or meter, daily	Average monthly and maximum daily, MGD
<b>Temperature- Open Water Conditions</b>	--	Not to exceed 15°C above ambient	Recording or meter, daily	Maximum daily, °C
<b>Temperature- Under Ice Conditions</b>		Not to exceed 15°C above ambient		

**NOTES:** <sup>4</sup> Sampling frequency will be reduced from quarterly to annually, if after the first full year of testing or after the first four WET tests indicate that no toxic effects were seen. If subsequent annual tests indicate a toxic effect, then testing would revert back to the quarterly testing requirement.

<sup>5</sup> Monitoring and reporting are required during periods of discharge only.

2. The permittee must report violations of effluent limits in the monthly Discharge Monitoring Reports (DMRs) (See Parts III.B., III.G. and III.H.).
3. The permittee must collect all effluent samples from the effluent stream after the last treatment prior to either discharge into the receiving waters or where commingled with other permitted waste streams.

**C. MONITORING PROCEDURES**

Monitoring shall be conducted according to test procedures approved under 40 CFR Part 136, unless other test procedures have been approved by EPA.

1. Sample and measurements shall be representative of the volume and nature of the monitoring discharge.
2. The permittee shall ensure that all effluent monitoring is conducted in compliance with good quality assurance and control procedures and the requirements of the permit.

**D. STRAINER/FILTER BACKWASH - ADDITIONAL CONDITIONS (OUTFALL 001)**

1. Organic biocides may be used to control sulfate-reducing bacteria; however, the discharge of biocide wastes is prohibited under this permit.
2. The permittee must submit an annual report summarizing the monthly use, if any, of biocides and/or chlorination/dechlorination chemicals upstream of the filters or in the filter backwash system. The annual report must be submitted to EPA with the March DMR of the following calendar year.
3. Floating Solids, Visible Foam or Oily Wastes. There shall be no discharge of floating solids or visible foam in other than trace amounts.

Additionally, discharges shall not cause a film, sheen, or discoloration on the surface or floor of the water body or adjoining shorelines.

#### **E. OTHER EFFLUENT CONDITIONS**

1. State Water Quality Standards. The permittee shall not discharge any constituent in concentrations which exceed applicable State water quality criteria after allowance for initial mixing in the 100-meter mixing zones approved by ADEC, set forth in Part I.E.4, for Outfalls 001 and 002. Mixing zones in State waters and State water quality standards are defined at 18 AAC 70.240.
2. Toxic Compounds and Materials. There shall be no discharge of diesel oil, halogenated phenolic compounds, trisodium nitrilotriacetic acid, sodium chromate or sodium dichromate.
3. Surfactants, Dispersants, and Detergents. There shall be no discharge of surfactants, dispersants, and detergents
4. The 100-meter mixing zone for Outfall 001 has been granted by the Alaska Department of Environmental Conservation (ADEC) for pH, turbidity, temperature, sediment, TRC, residues, color, and WET. A 100-meter mixing zone is also granted for Outfall 002 for temperature. The mixing zones are defined as the area of a circle with a 100 meter radius, centered at the discharge point, from the sea floor to the surface.

#### **F. QUALITY ASSURANCE REQUIREMENTS**

The permittee must develop or update a quality assurance plan (QAP) for all monitoring required by this permit. Within 90 days of the effective date of this permit, the QAP must be implemented, and EPA and ADEC must be notified in writing that the QAP has been developed and implemented. Any existing QAPs may be modified to fulfill the requirements under this section.

1. The QAP must be designed to assist in planning for the collection and analysis of effluent and receiving water samples in support of the permit 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 which is specified in these documents.
3. The permittee must amend the QAP whenever there is a modification in methods for sample collection, sample analysis, or other procedure addressed by the QAP or a change in the guidance cited above.

4. Copies of the QAP must be kept on site and made available to EPA and ADEC upon request.

**G. WHOLE EFFLUENT TOXICITY (WET) TESTING REQUIREMENTS**

The permittee must conduct quarterly (i.e., four times per year, every three months) short-term chronic toxicity tests on effluent samples from Outfall 001 during quarters when biocides and/or chlorination/dechlorination chemicals are used. No toxicity testing is required during quarters when no biocides or chlorination/dechlorination chemicals are used upstream of the filters or in the filter backwash system. Testing must be conducted in accordance with Part I.G.1 through Part I.G.7.

1. Toxicity testing must be conducted on 24-hour composite samples of effluent. Grab samples or recordings of the parameters required in Part I.B., must be taken during the same 24-hour period as the 24-hour composite sample used for the toxicity tests. Sample collection for toxicity testing shall coincide with the use of biocides and/or chlorination/dechlorination chemicals upstream of the filters or in the filter backwash system.
2. Chronic Test Species and Methods
  - (a) For Outfall 001, short-term chronic toxicity tests must be conducted quarterly when biocides and/or chlorination/dechlorination chemicals are used upstream of the filters or in the filter backwash system. Toxicity testing is not required during quarters when no biocides or chlorination/dechlorination chemicals are used.
  - (b) The permittee must conduct the following two chronic toxicity tests on each sample, using the species and protocols in Table 2.

<b>TABLE 2: Toxicity Test Species and Protocols</b>		
<b>MARINE CHRONIC TOXICITY TESTS</b>	<b>SPECIES</b>	<b>METHOD</b>
Pacific oyster or mussel embryo-larval development test	<i>Crassostrea gigas</i> or <i>Mytilus spp.</i>	EPA/600/R-95/136
Topsmelt larval growth and survival test*	<i>Atherinops affinis</i> *	EPA/600/R-95/136*

\*NOTE: If biocides and/or chlorination/dechlorination chemicals are used upstream of the filters or in the filter backwash system resulting in a continuous discharge that is less than 48 hours, then only the bivalve test is required. If the discharge exceeds a 48-hour duration, then testing of topsmelt larval growth is also required. In the event topsmelt is unavailable, the inland silverside (*M. beryllina*) larval survival and growth method may be used as a substitute. The test is method 1006.0 in EPA-821-R-02-014. The use of the substitute species will be reported in the next DMR.

- (c) The presence of chronic toxicity must be determined as specified in the methods manuals corresponding to the individual testing protocols.
- (d) Results must be reported in  $TU_C$  (chronic toxic units), which is defined as follows:
  - (i) For all chronic survival endpoints,  $TU_C = 100/NOEC$ .
  - (ii) For all other chronic test endpoints,  $TU_C = 100/IC_{25}$
  - (iii)  $IC_{25}$  means “25% inhibition concentration.” The  $IC_{25}$  is a point estimate of the toxicant concentration, expressed in percent effluent, that causes a 25% reduction in a non-quantal biological measurement (e.g., reproduction or growth) calculated from a continuous model (e.g., Interpolation Method).
  - (iv)  $NOEC$  means “no observed effect concentration.” The  $NOEC$  is the highest concentration of toxicant, expressed in percent 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).
- (e) For the vertebrate toxicity tests (i.e., topsmelt or inland silverside), daily observation of mortality will also be taken to establish the 24-h, 48-h, and 96-h  $LC_{50}$ 's.  $LC_{50}$  is defined in Part VI.

### 3. Quality Assurance

The toxicity testing on each organism must include a series of five test dilutions and a control. The dilution series must include the receiving water concentration (RWC), which is the dilution associated with the chronic toxicity trigger, two dilutions above the RWC, and two dilutions below the RWC. If ADEC authorizes a 12.3:1 dilution mixing zone for WET (dilution factor of 13.3), the RWC is 7.5% effluent, and the test concentrations shall be 30, 15, 7.5, 3.75, and 1.875% effluent. In addition to this dilution series, effluent concentrations of 60 and 100% will also be tested. If the addition of brine solution or dry salts is necessary to adjust the salinity of the effluent, it may not be possible to achieve 100% effluent as one of the test concentrations. If this occurs, the maximum effluent concentration achievable after salinity adjustment will be used as a substitute for 100% effluent, and this will be documented in the next WET report. The other test concentrations shall remain the same.

- (a) All quality assurance, test acceptability criteria, and statistical analyses used for chronic tests and reference toxicant tests must be

in accordance with the methods manuals and individual testing protocols. Toxicity tests which do not meet the quality assurance or test acceptability criteria shall be repeated using fresh effluent samples. Effluent samples collected for re-testing will coincide with the next use of biocides and/or chlorination/dechlorination chemicals.

- (b) In addition to those quality assurance measures specified in the methodology, the following quality assurance procedures must be followed:
- (i) If organisms are not cultured in-house, concurrent testing with reference toxicants must be conducted. If organisms are cultured in-house, monthly reference toxicant testing is sufficient. Reference toxicant tests must be conducted using the same test conditions as the effluent toxicity tests.
  - (ii) If either 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 repeat the test using fresh effluent samples. Effluent samples collected for re-testing shall be taken to coincide with the next use of biocides and/or chlorination/dechlorination chemicals.
  - (iii) Control and dilution water must be receiving water or lab water, as appropriate, as described in the methods manuals. If the dilution water used is different from the culture water, a second control, using culture water must also be used. Receiving water may be used as control and dilution water upon notification of EPA and ADEC. In no case shall water that has not met test acceptability criteria be used for either dilution or control.

**4. Preparation of Initial Investigation Toxicity Reduction Evaluation (TRE) Workplan**

The permittee must develop and submit to EPA a copy of the initial investigation TRE workplan describing the steps the permittee intends to follow, if and when chronic toxicity is detected above 13.3 TU<sub>C</sub>. The plan must include at a minimum:

- (a) A description of the investigation and evaluation techniques that would be used to identify potential causes/sources of toxicity, effluent variability, treatment system efficiency;
- (b) A description of the facility's method of maximizing in-house treatment efficiency, good housekeeping practices, and a list of all chemicals used in operation of the facility; and



- (c) If a toxicity identification evaluation (TIE) is necessary, who will conduct it (i.e., in-house or other).

## 5. Accelerated Testing

If chronic toxicity is detected above 13.3 TU<sub>C</sub>, the permittee must comply with the following:

- (a) The permittee must implement the initial investigation TRE workplan within 48-hours of the permittee's receipt of the toxicity results demonstrating the exceedance.
- (b) The permittee must retest the effluent at the next time that biocides and/or chlorination/dechlorination chemicals are used upstream of the filters or in the filter backwash system.
- (c) The permittee must notify EPA of the exceedance in writing within 5 calendar days of receipt of the test results indicating the exceedance. The notification must include the following information:
  - (i) A status report on any actions required by the permit, with a schedule for actions not yet completed.
  - (ii) A description of any additional actions the permittee has taken or will take to investigate and correct the cause(s) of the toxicity.
  - (iii) Where no actions have been taken, a discussion of the reasons for not taking action.
- (d) If implementation of the initial investigation workplan clearly identifies the source of toxicity to the satisfaction of EPA (e.g., a temporary plant upset), and none of the six accelerated chronic toxicity tests required under Part I.G.5.b. are above 13.3 TU<sub>C</sub>, the permittee may return to the regular chronic toxicity testing cycle specified in Part I.G.2.a.

## 6. Toxicity Reduction Evaluation (TRE)

- (a) If implementation of the initial investigation workplan does not clearly identify the source of toxicity to the satisfaction of EPA, or retesting of the effluent (see I.G.5(b)) indicate toxicity above 13.3 TU<sub>C</sub>, then the permittee must begin implementation of the toxicity reduction evaluation (TRE) requirements below. Implementation of the TRE requirements shall begin the next time that biocides and/or chlorination/dechlorination chemicals are used upstream of the filters or in the filter backwash system.

- (b) In accordance with the permittee's initial investigation workplan and EPA manual EPA/600/2-88/070 (Generalized Methodology for Conducting Industrial Toxicity Reduction Evaluations), the permittee must develop as expeditiously as possible a more detailed TRE workplan, which includes:
- (i) Further actions to investigate and identify the cause of toxicity;
  - (ii) Actions the permittee will take to mitigate the impact of the discharge and to prevent the recurrence of toxicity; and
  - (iii) A schedule for these actions.
- (c) The permittee may initiate a Toxicity Identification Evaluation (TIE) as part of a TRE to identify the causes of toxicity using the same species and test method and, as guidance, EPA test method manuals: *Toxicity Identification Evaluation: Characterization of Chronically Toxic Effluents, Phase I* (EPA/600/6-91/005F, 1992); *Methods for Aquatic Toxicity Identification Evaluations, Phase II Toxicity Identification Procedures for Samples Exhibiting Acute and Chronic Toxicity* (EPA/600/R-92/080, 1993); *Methods for Aquatic Toxicity Identification Evaluations, Phase III Toxicity Confirmation Procedures for Samples Exhibiting Acute and Chronic Toxicity* (EPA/600/R-92/081, 1993); and *Marine Toxicity Identification Evaluation (TIE): Phase I Guidance Document* (EPA/600/R-96-054, 1996).
- (d) If a TIE is initiated prior to completion of the accelerated testing, the accelerated testing schedule may be terminated, or used as necessary in performing the TIE

## 7. Reporting

- (a) The permittee shall submit a full laboratory report with the results of the toxicity tests as an attachment to the Discharge Monitoring Report (DMR) after receiving the results of the tests.
- (b) The report of toxicity test results must include all relevant information outlined in the report preparation section of the testing methods manuals. In addition to toxicity test results, the permittee must report: dates of sample collection and initiation of each test; flow rate at the time of sample collection; the results of the monitoring required in Part I.B of this permit for parameters with a required monitoring frequency of once per month or more frequently; and progress reports on any TIE/TRE investigations.

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**II. BEST MANAGEMENT PRACTICES (BMP) PLAN****A. PURPOSE**

Through implementation of the BMP Plan, the permittee must prevent or minimize the generation and the potential for release of pollutants from the facility to the waters of the United States through normal and ancillary activities of the facility. Discharges that cannot be prevented or reduced shall be recycled or treated and discharged in an environmentally safe manner.

**B. DEVELOPMENT AND IMPLEMENTATION SCHEDULE**

The permittee must develop and implement a BMP Plan that achieves the objectives and the specific requirements listed below. Any existing BMP Plans may be modified to comply with this section and the general guidance contained in *Guidance Manual for Developing Best Management Practices* (EPA 833-B-93-004, October 1993) and *Storm Water Management For Industrial Activities, Developing Pollution Prevention Plans and Best Management Practices* (EPA 832-R.92.006) or any subsequent revision to these guidance documents. Within 90 days of the effective date of this permit, the permittee must submit a letter to EPA and ADEC certifying that the BMP Plan has been developed or updated and is being implemented.

1. The permittee shall develop its BMP Plan consistent with these objectives:
  - (a) 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 influent waste stream in the most appropriate manner.
  - (b) 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 facility.

**C. DOCUMENTATION**

1. The permittee shall develop a BMP Plan in accordance with good engineering practices. The permittee shall provide the necessary plot plans, drawings, or maps in its BMP Plan. The BMP Plan will be organized and written with the following structure:
  - (a) name and location of the facility;
  - (b) statement of BMP policy;
  - (c) identification and assessment of potential effects of the pollutant discharges;
  - (d) specific management practices and standard operating procedures to achieve the above objectives, including, but not limited to:

- 
- (i) The modification of equipment, facilities, technology, processes, and procedures, and
    - (ii) The improvement in management, inventory control, materials handling, or general operational phases of the facility;
  - (e) good housekeeping;
  - (f) preventative maintenance;
  - (g) inspections and records; and
  - (h) employee training.
2. The BMP Plan will include the following provisions concerning its review:
    - (a) provide for a review by the facility manager and appropriate staff; and
    - (b) include a statement that the above review has been completed and that the BMP Plan fulfills the requirements set forth in the permit – the facility manager must certify and date the statement.
  3. The permittee shall maintain a copy of its BMP Plan at the facility and shall make the plan available to EPA and ADEC for review and approval upon request.

#### **D. MODIFICATION OF THE BMP PLAN**

1. The permittee shall amend the BMP Plan whenever there is a change in the facility, its operations, or when any other circumstances materially increase the generation of pollutants and their release, or potential release, to receiving waters. Any changes to the BMP Plan must be consistent with the objectives and specific requirements listed in Part II. The facility manager or his designee must review and approve each change to the BMP Plan in accordance with Part II.C.2.
2. If a BMP Plan proves to be ineffective in achieving the general objective of preventing and minimizing the generation of pollutants and their release or potential release to the receiving waters, or the specific requirements above, then the permit or the BMP Plan will be subject to modification to incorporate revised BMP requirements.

### **III. MONITORING, RECORDING AND REPORTING REQUIREMENTS**

#### **A. REPRESENTATIVE SAMPLING (ROUTINE AND NON-ROUTINE DISCHARGES)**

1. 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 in Part I.B.

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

## **B. REPORTING OF MONITORING RESULTS**

1. The permittee must summarize monitoring results each month on the DMR form (EPA No. 3320-1) or equivalent. The permittee must submit reports monthly, postmarked by the 10th day of the month immediately following the monitoring 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 legible originals of the DMRs to the Director, Office of Compliance and Enforcement, with copies to ADEC at the following addresses:

U.S. Environmental Protection Agency, Region 10  
1200 Sixth Avenue, Suite 900, OCE-133  
ATTN: ICIS Data Entry Team  
Seattle, Washington 98101

Alaska Department of Environmental Conservation  
Attn: Marc Bentley  
Division of Water  
555 Cordova Street  
Anchorage, Alaska 99501-2617

2. The permittee must also submit an annual report summarizing the monthly use of biocides and/or chlorination/dechlorination chemicals that are being used upstream of the filters or in the filter backwash system. The annual report must contain the type and quantity of chemicals used. The annual report must also include effluent monitoring data and report any and each permit violation, upset condition, by-pass condition, plant or process change, and corrective action(s) undertaken to improve wastewater treatment and pollution prevention at the facility. The annual report must provide a comprehensive record of wastewater discharge at the facility and must include an electronic spreadsheet containing all historical data beginning with the effective date of this permit, as well as a comparison of monitoring results over time (to show any trends). The annual report must cover the entire calendar year that precedes the March DMR to EPA. The annual report must be submitted to EPA with the March DMR.

**C. MONITORING PROCEDURES**

Monitoring must be conducted according to test procedures approved under 40 C.F.R. § 136, unless other test procedures have been specified in this permit.

**D. ADDITIONAL MONITORING BY PERMITTEE**

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

Upon request by the 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 the:

1. date, exact place, and time of sampling or measurements;
2. name(s) of the individual(s) who performed the sampling or measurements;
3. date(s) analyses were performed;
4. names of the individual(s) who performed the analyses;
5. analytical techniques or methods used; and
6. 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 this NPDES permit, and records of all data used to complete the application for this permit, for a period of at least five (5) years from the date of the sample, measurement, report or application. This period may be extended by EPA or ADEC at any time.

**G. 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"); or
  - (c) any upset that exceeds any effluent limitation in the permit (See Part IV.G., "Upset Conditions");

2. The permittee must also provide a written submission within five (5) days of the time that the permittee becomes aware of any event required to be reported under Part III.G.1. 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;
  - (d) steps taken or planned to reduce, eliminate, and prevent recurrence of the noncompliance; and
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.
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 of this permit ("Notice of Noncompliance Reporting").

#### **I. CHANGES IN DISCHARGE OF TOXIC SUBSTANCES**

The permittee must provide notice to the Director of the Office of Water and Watersheds 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 will exceed the highest of the following "notification levels":
  - (a) one hundred micrograms per liter (100 µg/L)
  - (b) two hundred micrograms per liter (200 µg/L) for acrolein and acrylonitrile; five hundred micrograms per liter (500 µg/L) for 2,4-dinitrophenol and for 2-methyl-4,6-dinitrophenol; and one milligram per liter (1 mg/L) for antimony;
  - (c) five (5) times the maximum concentration value reported for that pollutant in the permit application in accordance with 40 CFR 122.21(g)(7); or

- (d) the level established by EPA in accordance with 40 CFR 122.44(f).
2. That any activity has occurred or will occur that would result in the discharge, on a non-routine or infrequent basis, of any toxic pollutant that is not limited in the permit if that discharge will exceed the highest of the following “notification levels”:
- (a) five (5) hundred micrograms per liter (500 µg/L)
- (b) one (1) 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 EPA in accordance with 40 CFR 122.44(f).
3. The permittee must submit the notification to EPA, Region 10, Office of Water and Watersheds at the following address:

U.S. Environmental Protection Agency (OWW-130)  
1200 Sixth Avenue, Suite 900  
Seattle, Washington 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.**

1. **Civil and Administrative Penalties.** Pursuant to 40 CFR 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).
2. **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 \$11,000 per day for each day during which the violation continues, with the maximum amount of any Class II penalty not to exceed \$137,500).

### 3. 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 or sludge use or disposal 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) that are installed or used by the permittee to achieve compliance with the conditions of the 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 installed by the permittee and used when necessary to achieve compliance with the conditions of the permit.

**F. 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 Part IV.F.2 and IV.F.3.

**2. Notice.**

(a) Anticipated bypass. If the permittee knows in advance of the need for a bypass, it must submit prior notice, to the Director and ADEC 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 ("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:

(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 Part IV.F.2.

(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 Part IV.F.3.a.

**G. 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 Part IV.G.2. No determination made during administrative review of claims that noncompliance was caused by an upset, and before an enforcement action for that noncompliance, is a 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 facility was being properly operated at the time of the upset;
  - (c) the permittee submitted a notice of the upset as required under Part III.G, "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.

#### **H. 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 applicable standard or prohibition.

#### **I. PLANNED CHANGES**

The permittee must notify the Director of the Office of Water and Watersheds and ADEC as soon as possible of any planned physical alterations or additions to the permitted facility whenever:

1. the alteration or addition to the 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.

#### **J. ANTICIPATED NONCOMPLIANCE**

The permittee must give advance notice to the Director of the Office of Compliance and Enforcement 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 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 Director, 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 and ADEC, within the time specified in the request, any information that the EPA 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 must 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 EPA or ADEC, it must promptly submit such facts or information.

**E. SIGNATORY REQUIREMENTS**

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

1. All permit applications must 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 EPA or ADEC 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 EPA and ADEC.
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 EPA 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 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, 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. 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 state or local laws or regulations.

**I. TRANSFERS**

This permit is not transferable to any person except after notice to the Director of the Office of Water and Watersheds. 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).

**J. 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.

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**VI. DEFINITIONS**

1. § means section or subsection.
2. AAC means the Alaska Administrative Code.
3. Act means the Clean Water Act.
4. ADEC means Alaska Department of Environmental Conservation.
5. Administrator means the Administrator of the EPA, or an authorized representative.
6. Average Monthly Limit means the highest allowable average of “daily discharges” over a calendar month, calculated as the sum of all “daily discharges” measured during a calendar month divided by the number of “daily discharges” measured during that month.
7. Best Management Practices (BMPs) means schedules of activities, prohibitions of practices, maintenance procedures, and other management practices to prevent or reduce the pollution of “waters of the United States.” BMPs also include treatment requirements, operating procedures, and practices to control plant site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw material storage.
8. Bypass means the intentional diversion of waste streams from any portion of a treatment facility.
9. °C means degrees centigrade.
10. CFR means the Code of Federal Regulations.
11. Chronic Toxic Unit (TUc) is a measure of chronic toxicity. TUc is the reciprocal of the effluent concentration that causes no observable effect on the test organisms by the end of the chronic exposure period (i.e., 100/NOEC).
12. CWA, or the Act, means the Clean Water Act.
13. Daily Discharge means the discharge of a pollutant measured during a calendar day or any 24-hour period that reasonably represents the calendar day for purposes of sampling. For pollutants with limitations expressed in units of mass, the "daily discharge" 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.
14. Daily Maximum Discharge means the highest allowable "daily discharge" and is also referred to as the "maximum daily discharge."
15. Discharge Monitoring Report (DMR) means the EPA uniform national form, including any subsequent additions, revisions, or modifications for the reporting of



self-monitoring results by permittees. DMRs must be used by “approved States” as well as by EPA.

16. Director means the Director of the Office of Water and Watersheds, or Director of the Office of Compliance and Enforcement, EPA, or authorized representatives.
17. Discharge of a pollutant means any addition of any "pollutant" or combination of pollutants to "waters of the United States" from any "point source".
18. EC<sub>50</sub> means a point estimate of the concentration of a substance producing a specific biological effect on 50% of the exposed organisms during a specific period of exposure.
19. EPA means the United States Environmental Protection Agency.
20. °F means degrees Fahrenheit.
21. Grab Sample is an individual sample collected over a period of time not exceeding 15 minutes.
22. IC<sub>25</sub>, Inhibition concentration, is a point estimate of the toxicant concentration that causes a 25 percent reduction (p) in a non-quantal biological measurement (e.g., reproduction or growth) calculated from a continuous model (e.g., Interpolation Method).
23. LC<sub>50</sub> means the concentration of a toxicant (e.g., effluent) which is lethal to 50 percent of the test organisms exposed in the time period prescribed by the test.
24. Marine Life Return System (MLRS) means the system designed to prevent fish from entering the seawater treatment plant (STP) feed pumps. Fish entering the STP are diverted through an outfall back to the receiving water by way of the MLRS.
25. Maximum means the highest measured discharge or pollutant in a waste stream during the time period of interest.
26. Maximum Daily Limit means the highest allowable “daily discharge.”
27. Method Detection Limit (MDL) is defined as the minimum concentration of a substance that can be measured and reported with 99% confidence that the analyte concentration is greater than zero and is determined from analysis of a sample in a given matrix containing the analyte.
28. MGD means million gallons per day.
29. mg/L means milligrams per liter.
30. Mixing Zone means the zone of dilution authorized by the Alaska Department of Environmental Conservation under 18 AAC 70.240-270 wherein pollutant

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concentrations may exceed the criteria of the Alaska Water Quality Standards for the proscribed pollutants.

31. MLLW means mean lower low water.
32. NOEC means 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).
33. Pollutant means dredged spoil, solid waste, incinerator residue, filter backwash, sewage, garbage, sewage sludge, munitions, chemical wastes, biological materials, radioactive materials, heat, wrecked or discarded equipment, rock, sand, cellar dirt, and industrial, municipal, and agricultural waste discharged into water.
34. Process Wastewater means any wastewater which, during processor operations, comes into direct contact with or results from the production or use of any raw material, intermediate product or by-product, or waste product.
35. QA/QC means quality assurance/quality control
36. QAP means Quality Assurance Plan
37. Regional Administrator means the Regional Administrator of Region 10 of the EPA, or the authorized representative of the Regional Administrator.
38. RWC means receiving water concentration, which is the inverse of the dilution factor.
39. Severe Property Damage means substantial physical damage to property, damage to the treatment facilities which causes them to become inoperable, or substantial and permanent loss of natural resources 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.
40. STP means seawater treatment plant.
41. Strainer/Filter Backwash means all discharges associated with backwashing the strainers or filters of the seawater treatment plant. This includes discharges occurring during the filter draindown and prerun cycles.
42. TIE means Toxicity Identification Evaluation
43. TRC means total residual chlorine
44. TRE means Toxicity Reduction Evaluation

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45.  $TU_c$  means chronic toxicity unit
  46. 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.
  47. WET means Whole Effluent Toxicity.
  48. 24-Hour Composite Sample means a combination of at least 8 discrete sample aliquots of at least 100 milliliters, collected at periodic intervals from the same location, during the operating hours of the facility over a 24 hour period. The composite must be flow-proportional. The sample aliquots must be collected and stored in accordance with procedures prescribed in the most recent edition of *Standard Methods for the Examination of Water and Wastewater*.