Permit No.: AK-004064-9

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

AUTHORIZATION TO DISCHARGE UNDER THE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)

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 (CWA),

Teck Cominco Alaska, Inc. (DeLong Mountain Regional Transportation System Port Facility, a.k.a. Red Dog Port Site)

is authorized to discharge from the Red Dog Port Site facilities located 17 miles southeast of Kivalina, Alaska, 1) treated wastewater through outfalls 001 and 005 at latitude 67° 34" N and longitude 164° 03" W to receiving water named the Chukchi Sea, and 2) stormwater to the tundra wetlands in accordance with discharge points, effluent limitations, monitoring requirements and other conditions set forth herein.

This permit shall become effective, July 1, 2006.

This permit and the authorization to discharge shall expire at midnight, July 1, 2011.

The permittee shall reapply for a permit reissuance on or before January 2, 2011, 180 days before the expiration date of this permit if the permittee intends to continue operations and discharges at the facility beyond the term of this permit.

Signed this 16th day of May, 2006,

/s/ Michael F. Gearheard

Michael F. Gearheard Director Office of Water and Watersheds, Region 10 U.S. Environmental Protection Agency

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SUMMARY OF PERMIT SUBMITTALS

Refer to the Conditions of this permit for complete submittal requirements.

Permit Section	Submittal	Frequency	First Submittal Date	
III.B.	Discharge Monitoring Report (DMR)	Monthly	August 20, 2006	
I.E.	Whole Effluent Toxicity - Acute Toxicity Testing	1/permit cycle	With the application for permit renewal	
I.F.	Updated Ambient Water Monitoring Program Plan	1/permit cycle	Within 90 days of the effective date of the permit	
I.F.2.	Ambient Monitoring Program Plan Implementation	1/permit cycle	Within 30 days of submittal of the Plan or within 30 days of the next open water season	
I.F.4.	Ambient Monitoring Results Summary Reports	Annually	March 1 after plan implementation	
I.G.	Quality Assurance Plan	Once, then as necessary	Within 90 days of the effective date of the permit	
I.H.	Annual Water Monitoring Summary Report	Annually	March 1, 2007	
II.	Best Management Practices Plan	1/permit cycle	Within 180 days of the effective date of the permit	
II.F.	BMP Annual Report	Annually	January 31, 2006	
III.G., H.	Noncompliance Notification	As necessary		
III.G.	Reporting Bypasses	As necessary		
III.I.	Changes in Discharge of Toxic Pollutants	As necessary		
V.B.	Application for Permit Renewal	1/permit cycle	At least 180 days prior to the expiration date of the permit	

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I. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

A. Outfall 001 Limitations and Frequency of Monitoring - Personnel

Accommodations Complex Sewage Treatment Plant and Desalination
Plant

- 1. During the effective period of this permit, the Permittee is authorized to discharge from Outfall 001 into the Chukchi Sea subject to the restrictions set forth in Table 1. 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.
- 2. There shall be no discharge of floating solids, debris, sludge, visible foam, scum, or other residues which produce a film, sheen, or discoloration on the surface of the receiving water. Residuals also may not cause leaching of toxic or deleterious substances, or cause sludge, solids, or emulsion to be deposited beneath or upon the surface of the water, within the water column, on the bottom, or upon adjoining shorelines.
- 3. The Permittee shall limit discharges as specified in Table 1.

 Monitoring for all parameters shall occur after the last treatment unit and before combination with the desalination effluent or any other waste stream.
- 4. Percent removal requirements for BOD₅ and TSS are as follows: for any month, the monthly average effluent load shall not exceed 15 percent of the monthly average influent load. Loading shall be calculated using the following formula: 8.34 x pollutant concentration (mg/L) x daily flow (mgd).

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Table 1: Limitations and Frequency of Monitoring for Outfall 001

Parameter ¹	Daily Maximum	Weekly Average	Monthly Average	Sample Location	Sample Frequency	Sample Type ²
Biochemical Oxygen Demand (BOD ₅) ³		45.0 mg/L 4.5 lbs/day	30.0 mg/L 3.0 lbs/day	Influent	1/month	24-hr Comp.
		1.5 105/ day		Effluent		
Total Suspended Solids (TSS) ³		45.0 mg/L 4.5 lbs/day	30.0 mg/L 3.0 lbs/day	Influent	1/month	24-hr Comp.
(133)				Effluent		
Fecal Coliform, #/100 ml	1200	800	400	Effluent	1/month	Grab
Dissolved Oxygen				Effluent	1/month	Grab
Total Residual Chlorine (µg/L)	442		186	Effluent	3/week	Grab
pH^4		6.5 – 8.5 s.u.		Effluent	3/week	Grab
Flow, mgd					Continuous	Recorder
Cadmium, μg/L ⁵				Effluent	1/month in June, July, August and September	24-hr Comp.
Copper, μg/L ⁵				Effluent	1/month in June, July, August and September	24-hr Comp.
Lead, μg/L ⁵				Effluent	1/month in June, July, August and September	24-hr Comp.
Zinc, μg/L ⁵				Effluent	1/month in June, July, August and September	24-hr Comp.

Notes:

- 1. If the discharge concentration falls below the method detection level (MDL), the Permittee shall report the effluent concentration as "less than {numerical MDL}" on the discharge monitoring report (DMR). If the discharge concentration falls between the MDL and the minimum level (ML), the Permittee shall report the effluent concentration as "less than {numerical ML}" on the DMR. Actual analytical results shall be reported on the DMR when the results are greater than the ML. For averaging, samples below the MDL shall be assumed equal to zero, and samples between the MDL and the ML shall be assumed equal to {numerical MDL}. The Permittee shall report the number of non-detects for the month in the "Comment Section" of the DMR.
- 2. Effluent samples collected shall be representative of the effluent discharged without dilution from or contact with any outside sources. Results of analyses conducted under Part I.A.3. of this permit shall be submitted on the monthly DMR.
- 3. The Permittee shall collect influent and effluent samples on the same day.
- 4. The pH must not be less than 6.5 s.u. nor greater than 8.5 s.u.
- 5. Cadmium, copper, lead, and zinc shall be analyzed and reported as total recoverable.

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B. Outfall 005 Limitations and Frequency of Monitoring - Concentrate Storage Building Mine Drainage

- 1. During the effective period of this permit, the Permittee is authorized to discharge mine drainage from around the concentrate storage buildings (CSBs) through Outfall 005 to the Chukchi Sea. 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.
- 2. There shall be no discharge of floating solids, debris, sludge, visible foam, scum, or other residues which produce a film, sheen, or discoloration on the surface of the receiving water. Residuals also may not cause leaching of toxic or deleterious substances, or cause sludge, solids, or emulsion to be deposited beneath or upon the surface of the water, within the water column, on the bottom, or upon adjoining shorelines.
- 3. The discharge shall be subject to the restrictions specified in Table 2. Monitoring for all parameters shall occur at or before the point of discharge, before combination with any other waste stream, and shall only be required during periods of discharge.

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THIS PAGE MODIFIED MAY 31, 2006

Table 2: Limitations and Frequency of Monitoring for Outfall 005

Parameter ¹	Daily Maximum	Monthly Average	Sample Location	Sample Frequency	Sample Type
Copper, µg/L ²	300.0	150.0	Effluent	1/week	24-hour Comp.
Zinc, µg/L ²	1255.0	525.0	Effluent	1/week	24-hour Comp.
Lead, μg/L ²	600.0	300.0	Effluent	1/week	24-hour Comp.
Cadmium, µg/L ²	100.0	50.0	Effluent	1/week	24-hour Comp.
Mercury', μg/L ³	2.0	1.0	Effluent	1/week	24-hour Comp.
Total Suspended Solids, mg/L	30.0	20.0	Effluent	1/week	24-hour Comp.
pH, s.u. ⁴	6.5 – 8.5		Effluent	1/day	Grab
Flow, mgd			Effluent	Continuous	Recorder

Notes:

- 1. If the discharge concentration falls below the MDL, the Permittee shall report the effluent concentration as "less than {numerical MDL}" on the DMR. If the discharge concentration falls between the MDL and the minimum level (ML), the Permittee shall report the effluent concentration as "less than {numerical ML}" on the DMR. Actual analytical results shall be reported on the DMR when the results are greater than the ML. For averaging, samples below the MDL shall be assumed equal to zero, and samples between the MDL and the ML shall be assumed equal to {numerical MDL}. The Permittee shall report the number of non-detects for the month in the "Comment Section" of the DMR.
- 2. Copper, zinc, lead, and cadmium shall be analyzed and reported as total recoverable.
- 3. Mercury shall be analyzed and reported as total.
- 4. The pH must not be less than 6.5 s.u. nor greater than 8.5 s.u.

C. Industrial Storm Water

1. During the effective period of this permit, the Permittee is authorized to discharge to the tundra wetlands industrial storm water which is not subject to the effluent guidelines for the Ore Mining and Dressing Point Source Category (40 CFR Part 440). This permit does not authorize the discharge of storm water from construction activities. This permit does not authorize the discharge of any waste streams,

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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.

- 2. There shall be no discharge of floating solids, debris, sludge, visible foam, scum, or other residues which produce a film, sheen, or discoloration on the surface of the receiving water. Residuals also may not cause leaching of toxic or deleterious substances, or cause sludge, solids, or emulsion to be deposited beneath or upon the surface of the water, within the water column, on the bottom, or upon adjoining shorelines.
- 3. The discharges are subject to the requirements in Part II. Best Management Practices.

D. Additional Effluent Monitoring and Reporting Requirements

- 1. The Permittee shall conduct analyses using analytical methods approved in 40 CFR 136. EPA has approved the use of Alternative Test Procedures (ATP) for anions (EPA Method 300.0) and for metals (EPA Method 200.8) under 40 CFR 136.5 for use in this permit.
- 2. Method Detection Limits. For all effluent monitoring, the permittee must use methods that can achieve a method detection limit (MDL) less than the effluent limitation.
- 3. As part of the update of the Quality Assurance Plan (see Section I.G.) the Permittee shall specify the analytical test method that will be used to achieve each method detection limit.
- 4. For purposes of reporting on the DMR, if a value is greater than the ML, the permittee must report the actual value. If a value is between the MDL and the ML, the permittee must report "less than {numeric ML}" on the DMR. If a value is less than the MDL, the permittee must report "less than {numeric MDL}" on the DMR. For purposes of calculating monthly averages, zero may be used for values less than the MDL, and {numeric MDL} may be used for values between the MDL and the ML. The Permittee shall report the number of non-detects for the month in the comment section of the DMR.

E. Whole Effluent Toxicity Testing

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1. The Permittee shall perform acute toxicity tests once per month during the months of June, July, August, and September 2008 on samples representative of the effluents discharged from outfalls 001 and 005.

The Permittee shall submit a full WET report (Section I.E.4.) with the application for permit renewal, no later than 180 days before the permit's expiration date. The report of test results shall include all relevant information.

2. The Permittee shall conduct one acute toxicity test per month (per fish and invertebrate species) during the months of June, July, August, and September 2008.

The tests shall be conducted using:

<u>Atherinops affinis (topsmelt)</u>- 4-day static non-renewal, acute test (refer to reference listed in Section I.E.3.b.);

<u>Americamysis bahia</u> (Atlantic mysid) or <u>Holmesimysis costata</u> (<u>Pacific mysid</u>)- at least 48 hour static non-renewal, acute test (refer to reference listed in Section I.E.3.b.).

3. Quality Assurance

- a. The toxicity testing on each organism shall include a series of at least six test solutions, ranging from 0 percent effluent (control) to 100 percent effluent, with a minimum of four replicates per concentration. Based on available data, dilutions shall be selected that will bracket the expected in-stream waste concentration of 5.5% (IWC, for example 2.5, 4.0, 5.5, 42.0, 90.0). The estimated IWC is one divided by the acute dilution of the effluent. Where organisms are not cultured in-house, concurrent testing with reference toxicants shall also be conducted. Concurrent testing with reference toxicants shall also be conducted once per month in June, July, August and September.
- b. All test methods and quality assurance criteria used shall be in accordance with the following documents:

Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms, Fifth Edition, EPA/821-R-02-012, October 2002 and the individual test protocol.

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c. The Permittee shall conduct testing on 24-hour composite samples of effluent. Each sample collected shall be large enough to provide enough effluent to conduct the toxicity tests, as well as chemical tests required in Part I.A. and I.B. of the permit.

- d. The Permittee shall perform chemical testing for the parameters listed in Part I.A. and I.B. of this permit on a split sample collected for WET testing to the extent possible. To the extent that the timing of sample collection coincides with that of the sampling required in Part I.A. and I.B. of this permit, chemical analysis of the split sample will fulfill the requirements of those parts as well.
- e. The Permittee shall use standard laboratory dilution water as defined in each test method. In no case shall water that has failed the test acceptability criteria (TAC) be used for dilution or control water.
- f. If either the reference toxicant tests or the effluent tests do not meet all TAC as specified in the test methods manual, then the Permittee must re-sample and re-test as soon as possible.

4. Reporting

- a. A full report shall be submitted with the application for permit renewal.
- b. The full report shall consist of: (1) the toxicity test results, including any additional testing and/or sampling conducted, in acute toxic units (TUa, see definition); (2) the dates of sample collection and initiation of each toxicity test; (3) the flow rate at the time of sample collection; and (4) the results of the effluent analyses for chemical/physical parameters.

F. Updated Ambient Water Monitoring Program

The Permittee shall conduct a Water Quality Monitoring program within the Chukchi Sea to measure the water column for background salinity; dissolved oxygen; total recoverable and dissolved cadmium, lead, zinc, and copper; and total and dissolved mercury. An updated Ambient Water Monitoring Program Plan shall be submitted to the EPA for review and to ADEC for review and approval within 90 days of the effective date of the permit. If ADEC does not respond within 60 days of submittal, the plan shall be deemed approved. The plan shall include the following requirements:

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1. The plan shall include determination of sampling locations representative of background conditions, temporal and spatial capability in the receiving water, appropriate sampling and analytical methods, including total recoverable (total in the case of mercury) and dissolved metals, and clean techniques if necessary. The plan shall also address analytical variability and quality assurance/quality control for sampling and analysis. Method detection limits required for ambient metals are found in Table 3. The permittee may request different MDLs. Such a request must be in writing and must be approved by EPA.

Table 3: Method Detection Limits for Ambient Metals Monitoring

Parameter	Method Detection Limits
Cadmium, μ g/L ¹	0.5
Lead, μg/L ¹	0.6
Zinc, µg/L ¹	1.8
Copper, μ g/L ¹	0.5
Mercury, μ g/L ²	0.2

Notes:

- Cadmium, lead, zinc, and copper shall be analyzed and reported as both total recoverable and dissolved.
- 2. Mercury shall be analyzed and reported as both total and dissolved.
- 2. The Permittee shall begin implementation of the plan within 30 days of submittal or during the first 30 days of the next open water season, if submitted during the time that the Chukchi Sea is frozen.
- 3. The Permittee shall collect a minimum of one monthly ambient sample for salinity; dissolved oxygen; total recoverable and dissolved cadmium, lead, zinc, and copper; and total and dissolved mercury during the months of June, July, August and September. The date, time, and weather conditions shall be noted and reported for each sample collected.
- 4. All monitoring results shall be reported in a summary report and submitted annually by March 1 as part of the Annual Water Monitoring Summary Report (Section I.H.).

G. Quality Assurance Plan

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1. The permittee shall update the Quality Assurance Plan (QAP) to incorporate the Updated Ambient Water Monitoring Program and any other changes since the previous QAP. The primary purpose of the QAP is to assist in planning for the collection and analysis of samples in support of the permit and in explaining data anomalies when they occur. The updated portion of the QAP shall address determination of appropriate sampling locations for ambient monitoring and determination of the appropriate methods for ambient metals. The updated QAP shall also address anomalies in the ambient copper analytical methods to ensure appropriate methods are used during this permit cycle.

- 2. 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 EPA QA/R-5 EPA Requirements for Quality Assurance Project Plans and EPA QA/G-5 Guidance on Quality Assurance Project Plans. The following references may be helpful in preparing the Quality Assurance Plan for this permit: You and Quality Assurance in Region 10, EPA, Region 10, Quality and Data Management Program, March 1988 and The Volunteer Monitors Guide to Quality Assurance Project Plans EPA 841-B-96-003, September 1996.
- 3. The updated QAP shall be submitted to EPA and ADEC for review within 90 days of the effective date of this NPDES permit.
- 4. Updates to the QAP shall include the following:
 - Sampling techniques (field blanks, replicates, duplicates, control samples, etc).
 - Sampling preservation methods.
 - Sampling shipment procedures.
 - Instrument calibration procedures and preventive maintenance (frequency, standard, spare parts).
 - Qualification and training of personnel.
 - Analytical methods (including quality control checks, quantification/detection levels).
 - Name(s), address(es) and telephone number(s) of the laboratories, used by or proposed to be used by the permittee, shall be specified in the Quality Assurance Plan
 - Any changes since the previous QAP was submitted.

H. Annual Water Monitoring Summary Report

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All monitoring results for a year must be included in an Annual Water Monitoring Summary Report and submitted to EPA and ADEC by March 1 of the following year. The report must include a presentation of the analytical results and an evaluation of the results of monitoring required in Permit Parts I.A., I.B., I.D., I.E. and I.F. The evaluation must include an electronic spreadsheet containing monitoring data from the previous year, a graphical presentation of the data at each monitoring station, and a comparison of monitoring results for each station over time (to show any trends). The Annual Water Monitoring Summary Report may reference the monthly reports for Quality Assurance/Quality Control (QA/QC) information.

All monitoring results for a calendar year shall be contained in the Report. At a minimum, the report must include the following:

- 1. Dates of sample collection and analyses
- 2. Results of sample analysis
- 3. Relevant QA/QC information.

II. BEST MANAGEMENT PRACTICES

A. <u>Purpose</u>

Through implementation of a Best Management Practices (BMP) plan the Permittee shall prevent or minimize the generation and the potential for the release of pollutants from their property to the waters of the United States through normal operations and ancillary activities. The Plan shall be signed in accordance with permit part V.E. (Signatory Requirements).

The permittee shall establish specific best management practices to meet the objectives and shall address each component or system capable of generating or causing a release of pollutants.

B. Submittal

The Permittee shall develop and submit an updated BMP plan and schedule of implementation to EPA and ADEC within 180 days of the effective date of this permit. The final BMP plan shall be submitted to ADEC. The plan shall be retained onsite and be made available to EPA and ADEC upon request.

C. Objectives

The Permittee shall amend the BMP plan to be consistent with the following objectives for the control of pollutants.

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1. The number and quantity of pollutants and the toxicity of effluent generated, discharged or potentially discharged due to all sources of fugitive dust emissions at the port facility shall be minimized by the Permittee to the extent feasible by managing each waste stream in the most appropriate manner.

- 2. The number and quantity of pollutants and the toxicity of effluent generated, discharged or potentially discharged from the DeLong Mountain Regional Transportation System Road and during ore concentrate conveyance and loading of the barges and oceangoing vessels shall be minimized by the Permittee to the extent feasible by managing each waste stream in the most appropriate manner.
- 3. The number and quantity of pollutants and the toxicity of storm water generated, discharged or potentially discharged shall be minimized by the Permittee to the extent feasible by managing waste streams in the most appropriate manner.
- 4. Under the BMP plan, and any Standard Operating Procedures (SOPs) included in the Plan, the Permittee shall ensure proper operation and maintenance of water management and wastewater treatment systems. Plan elements shall be developed in accordance with good engineering practices.

D. <u>Requirements</u>

The updated BMP plan shall be consistent with the objectives in Part C. above and the general guidance contained in the publications entitled "Best Management Practices Guidance Document" (U.S. EPA, 1993) and "Storm Water Management Plans for Industrial Activities" (U.S. EPA 1992), or any subsequent revisions.

The BMP Plan shall include, at a minimum, the following components:

- 1. 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.
- 2. Structure, functions, and procedures of a BMP Committee. The Plan shall identify a specific individual or individuals within the facility organization as members of the BMP Committee. The BMP Committee shall be responsible for developing the Plan and assisting the responsible manager in its implementation, maintenance, and

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revision. The Plan shall clearly identify who is responsible for the implementation of each condition of the Plan. The activities and responsibilities of the Committee shall address all aspects of the facility's discharges. In lieu of naming specific individuals as members of the BMP Committee, the permittee may name the corporate position(s) responsible for developing and implementing the Plan.

3. Description of Sources.

- a. A site map indicating an outline of the portions of the drainage area of each point source that are within the facility boundaries, all existing structural control measures to reduce pollutants in storm water runoff, surface water bodies, and locations where significant materials are exposed to precipitation.
- b. A site map indicating the flow direction of drainage.
- c. For each area that generates storm water discharges associated with industrial activity with a reasonable potential for containing significant amounts of pollutants, a prediction of the direction of flow, and an identification of the types of pollutants which are likely to be present in storm water discharges associated with industrial activity. Factors to consider include the toxicity of chemical parameters; quantity of chemicals used, produced or discharged; the likelihood of contact with storm water; and history of significant leaks or spills of toxic or hazardous pollutants. Flows with a potential for causing erosion shall be identified.
- 4. Inventory of Exposed Materials. An inventory of the types of materials handled at the site that potentially may be exposed to precipitation and the materials that have the potential for failure. The inventory shall include a narrative description of significant materials that have been handled, treated, stored or disposed in a manner to allow exposure to storm water; method, location, and size of on-site storage or disposal; materials management practices employed to minimize contact of materials with storm water runoff; the location and a description of existing structural and non-structural control measures to reduce pollutants in storm water runoff; and a description of any treatment the storm water receives.

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5. Spills and Leaks. A list of significant spills that may occur at the site and at areas that are exposed to precipitation or that otherwise drain to a storm water conveyance at the facility. Such list shall be updated as appropriate during the term of the permit.

- 6. Risk Identification and Summary of Potential Pollutant Sources. The Plan shall identify all normal operations and ancillary activities and discharges, sites, and significant materials that may potentially be pollutant sources (due to equipment failure, improper operation, natural phenomena such as wind, rain, or snowfall, etc.). The Plan shall also include a narrative description of the potential pollutant sources from the following locations and activities: material storage areas; secondary containment areas; material handling and process handling areas; fire suppression system; loading and unloading operations; outdoor storage activities; all fugitive dust or particulate generating activities; onsite waste disposal practices; storm water runoff; transfer of materials along conveyor and haul road; spillage or leaks (including fugitive dust emissions); and drainage from raw material storage. The description shall specifically list any potential source of pollutants at the site, and for each potential source, any pollutant or pollutant parameter (e.g. biochemical oxygen demand, etc.) of concern shall be identified. The Plan shall provide a description of potential sources which may reasonably be expected to add significant amounts of pollutants to storm water discharges.
- 7. Measures and Controls. The facility shall develop a description of pollution prevention controls appropriate for the facility and implement such controls. The appropriateness and priorities of controls in the Plan shall reflect identified potential sources of pollutants at the facility. The description of management controls shall address the following minimum components, including a schedule for implementing such controls:
 - a. Good Housekeeping Good housekeeping requires the maintenance of areas which may contribute pollutants.
 - b. Preventive Maintenance A preventive maintenance program shall involve timely inspection and maintenance of storm water management devices (e.g., cleaning oil/water separators, catch basins, pumps, channels, ditches) as well as inspecting and testing facility equipment and systems to uncover conditions that could cause breakdowns or failures resulting in discharges of pollutants to surface waters, and ensuring appropriate maintenance of such equipment and systems.

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c. Spill Prevention and Response Procedures - Areas where spills could result in the discharge of pollutants shall be identified clearly in the Plan. Where appropriate, specifying material handling procedures, storage requirements, and use of equipment such as diversion valves in the Plan should be considered. Procedures for cleaning up spills shall be identified in the Plan and made available to the appropriate personnel. The necessary equipment to implement a clean up must be available to personnel.

- 8. Employee Training. The Plan shall identify dates for annual employee training programs. The training programs shall inform personnel responsible for implementing activities identified in the Plan or otherwise responsible for all levels of responsibility of the components and goals of the Plan. Training shall address topics such as spill response, good housekeeping and material management practices.
- 9. Sediment and Erosion Control. The Plan shall identify areas, which due to topography, activities, or other factors, have a high potential for soil erosion, and identify structural, vegetative, and/or stabilization measures to be used to limit erosion.

E. Specific Best Management Practices

Specific practices shall be developed to achieve the objectives of the Plan, including but not limited to:

- 1. 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.
- 2. Proper management of materials in accordance with Spill Prevention, Control, and Countermeasure (SPCC) plans under Section 311 of the CWA and 40 CFR Part 112. The BMP plan may incorporate any part of such plans into the BMP plan by reference.
- 3. Representative sampling is required whenever a bypass, spill, or non-routine discharge of pollutants occurs, if the discharge may reasonably be expected to cause or contribute to a violation of any effluent limit set forth in the permit.
- 4. Measures for the reduction of dispersed metal concentrates (fugitive dust emissions) at the Port Site are required, including a description of

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controls to minimize any air emissions that may cause metal concentrates to disperse to surface waters.

- 5. Proper management of fire suppression system test water to prevent or reduce the potential release of pollutants to surface waters.
- 6. Qualified facility personnel shall conduct routine inspections monthly during the period from May through October, and quarterly during the period from November through April, on areas susceptible to leaks, spills, fugitive dust emissions and other identified problem areas.

For an inspection, the following conditions shall be met:

- a. A visual inspection of equipment needed to implement the Plan, such as spill response equipment, shall be made.
- b. Areas impacted by storm water discharge shall be visually inspected for evidence of, or the potential for, pollutants entering the drainage system. Measures to reduce pollutant loadings shall be evaluated to determine whether they are adequate and properly implemented in accordance with the terms of the permit or whether additional control measures are needed. Structural storm water management measures, sediment and erosion control measures, and other structural pollution prevention measures identified in the Plan shall be observed to ensure that they are operating correctly.
- c. Based on the results of the inspections, the permittee shall initiate corrective measures within 30 days of such inspection or as soon as practicable under extenuating circumstances. The permittee shall notify EPA and ADEC of the extenuating circumstances within 15 days of the inspection. Any corrective measures shall be documented and be included in the Plan.

F. Annual Report

The permittee shall prepare an annual report summarizing 1) the scope of inspections at the facility, 2) personnel making the inspections, 3) the dates of the inspections, 4) corrective actions taken as a result of the inspection, 5) description of the quality and quantity of storm water discharged, 6) construction activities during the year, 7) employee training conducted during the year, and 8) Plan modifications made during the year.

In addition, the report shall identify any incidents of non-compliance. Where a report does not identify any incidents of non-compliance, the

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report shall contain a certification that the facility is in compliance with the Plan and this permit.

The annual report shall be reviewed and endorsed by the Permittee's BMP Committee. A certified statement that the Committee's review has been completed and that the BMP Plan fulfills the requirements set forth in this permit shall be submitted to the EPA on or before January 31 of each year of operation under this permit. The statement shall be certified by the dated signatures of each BMP Committee member.

G. BMP Plan Modification

The permittee shall amend the Plan whenever there is a change in design, construction, operation, or maintenance, which has an effect on the potential for the discharge of pollutants to the waters of the United States or if the Plan proves to be ineffective in eliminating or minimizing pollutants from sources impacting water quality, or in otherwise achieving the general objectives of controlling pollutants. Amendments to the Plan are subject to review by EPA and ADEC, and they shall be kept on site and made available to EPA and ADEC upon request.

III. GENERAL MONITORING, RECORDING AND REPORTING REQUIREMENTS

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

Effluent samples taken in compliance with the monitoring requirements established under I.A. shall be collected after the last treatment process and before combination with the desalination effluent or any other waste stream. Effluent samples taken in compliance with the monitoring requirements under I.B. shall be collected at or before the point of discharge and before combination with any waste stream. 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 effluent limited parameters (Tables 1 and 2) that are likely to be affected by the discharge.

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The Permittee shall collect such additional samples as soon as possible after the spill or discharge. The samples shall be analyzed in accordance with paragraph III.C., below ("Monitoring Procedures"). In the event of an anticipated bypass, as defined in Part IV.F. of this permit ("Bypass of Treatment Facilities"), the Permittee shall collect and analyze additional samples as soon as the bypassed effluent reaches the outfall. The Permittee shall report all additional monitoring in accordance with paragraph D., below ("Additional Monitoring by Permittee").

B. Reporting of Monitoring Results

The Permittee shall summarize monitoring results each month on the DMR form (EPA No. 3320-1). The Permittee shall submit reports monthly. The reports shall be postmarked, or a signed DMR cover letter shall be faxed (with reports submitted as soon as possible), 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 Compliance and Enforcement, with copies to the State agency at the following addresses:

United States Environmental Protection Agency Region 10 1200 Sixth Avenue, OCE-133 Seattle, Washington 98101 Attn: PCS Data Entry Team

FAX: 206-553-1280

Alaska Department of Environmental Conservation Division of Water, Wastewater Program 610 University Avenue Fairbanks, Alaska 99709-3643

C. Monitoring Procedures

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

D. Additional Monitoring by Permittee

If the Permittee monitors any pollutant more frequently than required by this permit, test procedures approved under 40 CFR 136 or as specified in this permit shall be used. The Permittee shall include the results of this

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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 or ADEC, the Permittee shall submit results of any other sampling, regardless of the test method used.

E. 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.

F. Retention of Records

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

G. 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;

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b. any unanticipated bypass that results in or contributes to an exceedence of any effluent limitation in the permit (See Part V.F., "Bypass of Treatment Facilities");

- any upset that results in or contributes to an exceedence of any effluent limitation in the permit (See Part V.G., "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 Section III.E., above.
- 3. The Director of the Office of Compliance and Enforcement may, at his/her 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.B. ("Reporting of Monitoring Results").

H. 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.B. ("Reporting of Monitoring Results") are submitted. The reports shall contain the information listed in Part III.G. of this permit ("Twenty-four Hour Notice of Noncompliance Reporting").

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I. Changes in Discharge of Toxic Pollutants

The permittee must notify 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 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 EPA 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 EPA in accordance with 40 CFR 122.44(f).
- 3. The permittee must submit the notification to Office of Water and Watersheds at the following address:

US EPA Region 10 Attn: NPDES Permits Unit Manager 1200 Sixth Avenue, OWW-130 Seattle, Washington 98101

IV. COMPLIANCE RESPONSIBILITIES

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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 Part 19 and the Act, any person who violates section 301, 302, 306, 307, 308, 318 or 405 of the Act, or any permit condition or limitation implementing any such sections in a permit issued under section 402, or any requirement imposed in a pretreatment program approved under sections 402(a)(3) or 402(b)(8) of the Act, is subject to a civil penalty not to exceed the maximum amounts authorized by Section 309(d) of the Act and the Federal Civil Penalties Inflation Adjustment Act (28 U.S.C. § 2461 note) as amended by the Debt Collection Improvement Act (31 U.S.C. § 3701 note) (currently \$32,500 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 \$11,000 per violation, with the maximum amount of any Class I penalty assessed not to exceed \$32,500). 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 \$157,500).

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

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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

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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. <u>Need to Halt or Reduce Activity not a Defense</u>

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. <u>Proper Operation and Maintenance</u>

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 back up or auxiliary facilities or similar systems which are installed by the permittee only when the operation is necessary to achieve compliance with the conditions of the permit.

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 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.

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b. Unanticipated bypass. The Permittee shall submit notice of an unanticipated bypass as required under Part III.G. ("Twenty-four Hour Notice of Noncompliance Reporting").

3. Prohibition of bypass.

- a. Bypass is prohibited, and the Director of the Office of Compliance and Enforcement may take enforcement action against the Permittee for a bypass, unless:
 - (i) The bypass was unavoidable to prevent loss of life, personal injury, or severe property damage;
 - (ii) There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate back up equipment should have been installed, in the exercise of reasonable engineering judgment, to prevent a bypass that occurred during normal periods of equipment downtime or preventive maintenance; and
 - (iii) The Permittee submitted notices as required under paragraph 2 of this Part.
- b. The Director of the Office of Compliance and Enforcement may approve an anticipated bypass, after considering its adverse effects, if the Director determines that it will meet the three conditions listed above in paragraph 3.a. of this Part.

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 paragraph 2 of this Part. No determination made during administrative review of claims that noncompliance was caused by upset, and before an action for noncompliance, is final administrative action subject to judicial review.
- 2. Conditions necessary for a demonstration of upset. To establish the affirmative defense of upset, the permittee must demonstrate, through properly signed, contemporaneous operating logs, or other relevant evidence that:

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a. An upset occurred and that the permittee can identify the cause(s) of the upset;

- b. The permitted facility was at the time being properly operated;
- c. The permittee submitted notice of the upset as required under Part III.G, ("Twenty-four Hour Notice of Noncompliance Reporting"); and
- d. The permittee complied with any remedial measures required under Part IV.D, ("Duty to Mitigate").
- 3. Burden of proof. In any enforcement proceeding, the permittee seeking to establish the occurrence of an upset has the burden of proof.

H. Toxic Pollutants

The Permittee shall comply with effluent standards or prohibitions established under Section 307(a) of the CWA 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.

I. Planned Facility 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 meets 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.I. ("Changes in Discharge of Toxic Pollutants").

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.

J. Anticipated Noncompliance

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The Permittee shall also 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, or termination, or a notification of planned changes or anticipated noncompliance, does not stay any permit condition.

B. <u>Duty to Reapply</u>

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

C. Duty to Provide Information

The Permittee shall furnish to the EPA 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 EPA 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 shall promptly submit the omitted facts or corrected information.

E. Signatory Requirements

All applications, reports or information submitted to EPA and ADEC shall be signed and certified.

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- 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 EPA 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, superintendent, position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters for the company; and
 - c. The written authorization is submitted to the Director of the Office of Compliance and Enforcement 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 paragraph V.E.2. must be submitted to the Director of the Office of Compliance and Enforcement 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

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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

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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, tribal, 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 as specified in part III.I.3. ("Changes in Discharge of Toxic Pollutants"). 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 CWA.

VI. DEFINITIONS

- 1. "Act" means the Clean Water Act.
- 2. "Acute toxicity" measures the lethal effect of the solution.
- 3. "Acute toxicity unit (TUa)" is a measure of acute toxicity. Units are measured as 100/LC50.
- 4. "ADEC" means the Alaska Department of Environmental Conservation.
- 5. "Administrator" means the Administrator of the US EPA, or an authorized representative.
- 6. "Average monthly discharge limitation" 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. "Average weekly discharge limitation" means the average of daily discharges over a calendar week, calculated as the sum of all daily discharges measured during a calendar week divided by the number of daily discharges measured during that week. For fecal coliform bacteria,

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the weekly average is calculated as the geometric mean of all daily discharges measured during a calendar week.

- 8. "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 areas.
- 9. "Bypass" means the intentional diversion of waste streams from any portion of a treatment facility.
- 10. A "24 hour composite" sample shall mean a flow-proportioned mixture of not less than eight discrete aliquots in 24 hours. 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.
- 11. Continuous discharge means a "discharge" which occurs without interruption throughout the operating hours of the facility, except for infrequent shutdowns for maintenance, process changes or other similar activities.
- 12. "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.
- 13. "Daily maximum". <u>See</u> Maximum daily discharge.
- 14. "Director of the Office of Compliance and Enforcement" means the Director of the Office of Compliance and Enforcement, EPA Region 10, or an authorized representative.
- 15. "Director of the Office of Water and Watersheds" means the Director of the Office of Water and Watersheds, EPA Region 10, or an authorized representative.
- 16. "Discharge measurement" means measuring width, depths, and velocities using a tape or tagline, sounding equipment, and a current meter.

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17. "DMR" means discharge monitoring report.

- 18. "EPA" means the United States Environmental Protection Agency.
- 19. "Fecal coliform" means those bacteria that can ferment lactose at $44.5^{\circ} \pm 0.2^{\circ}$ C to produce gas in a multiple tube procedure. It also means all bacteria that produce blue colonies within 24 hours of incubation at $44.5^{\circ} \pm 0.2^{\circ}$ C in an M-FC broth medium. For fecal coliform analysis, the average shall be computed as the logarithmic mean.
- 20. "Flow-weighted average concentration" is defined as the sum of the product of discharge flows and corresponding concentrations, divided by the sum of discharge flows.
- 21. "Grab" sample is an individual sample collected over a period of time not exceeding 15 minutes.
- 22. "Inhibition concentration", IC, is a point estimate of the toxicant concentration that causes a given percent reduction (p) in a non-quantal biological measurement (e.g., reproduction or growth) calculated from a continuous model (e.g., Interpolation Method).
- 23. "Interim Minimum Level (IML)" is used when a method-specific "Minimum Level (ML)" has not been published by EPA. The IML is equal to 3.18 times the method-specified "Method Detection Limit (MDL)".
- 24. "LC50" means the concentration of toxicant (e.g. effluent) that is lethal to 50 percent of the test organisms exposed in the time period prescribed by the test.
- 25. "Maximum daily discharge limitation" or daily maximum means the highest allowable "daily discharge."
- 26. "Method Detection Limit (MDL)" means the minimum concentration of a substance (analyte) that can be measured and reported with 99 percent confidence that the analyte concentration is greater than zero and is determined from analysis of a sample in a given matrix containing the analyte.
- 27. "Mine drainage" means any water drained, pumped, or siphoned from a mine.
- 28. "Minimum Level (ML)" means the concentration at which the entire analytical system must give a recognizable signal and an acceptable

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calibration point. The ML is the concentration in a sample that is equivalent to the concentration of the lowest calibration standard analyzed by a specific analytical procedure, assuming that all the method-specified sample weights, volumes and processing steps have been followed.

- 29. "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).
- 30. "NPDES" means National Pollutant Discharge Elimination System, the national program for issuing, modifying, revoking and reissuing, terminating, monitoring and enforcing permits . . . under sections 307, 402, 318, and 405 of the CWA.
- 31. "Precipitation" means rainfall or snowmelt.
- 32. "QA/QC" means quality assurance/quality control.
- 33. "Regional Administrator" means the EPA Region 10 Regional Administrator, or an authorized representative.
- 34. "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.
- 35. "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.
- 36. "Wasteload allocation" means the maximum amount of pollutants that a body of water can assimilate in a day from a specific facility without violating the State's Water Quality Standards.