United States Environmental Protection Agency (EPA)
Region 10
1200 Sixth Avenue, Suite 900
Seattle, Washington 98101

AUTHORIZATION TO DISCHARGE UNDER THE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) FOR OIL AND GAS GEOTECHNICAL SURVEYS AND RELATED ACTIVITIES IN FEDERAL WATERS OF THE BEAUFORT AND CHUKCHI SEAS

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," the following discharges:

Discharge Number	**Discharge Description**
001	Water-Based Drilling Fluids and Drill Cuttings
002	Deck Drainage
003	Sanitary Wastes
004	Domestic Wastes
005	Desalination Unit Wastes
006	Bilge Water
007	Boiler Blowdown
008	Fire Control System Test Water
009	Non-contact Cooling Water
010	Uncontaminated Ballast Water
011	Drill Cuttings (not associated with Drilling Fluids)
012	Cement Slurry

are authorized from **oil and gas facilities conducting geotechnical surveys and related activities** to federal offshore waters in the Beaufort and Chukchi Seas, as defined in this general permit as the Area of Coverage (see Section I.B), in accordance with the effluent limitations, monitoring requirements, and other conditions set forth herein.

This general permit shall become effective

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

If the permittee intends to continue geotechnical surveys and/or related activities and associated discharges beyond the term of this general permit, the permittee must reapply for a permit at least 180 days before the expiration of this general permit (see Section VI.B., Duty to Reapply).

Signed this 21st day of January 2015.

/s/
Daniel D. Opalski, Director
Office of Water and Watersheds

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SCHEDULE OF SUBMISSIONS

The following table summarizes some of the submissions required under the general permit. The permittee is responsible for all submissions and activities even if they are not summarized below.

REPORTS/INFORMATION			
PERMIT SECTIONS	**PAGE NO.**	**SUBMISSIONS AND NOTIFICATION REQUIREMENTS**	**DUE DATES**
I.C.1.; I.C.2.; I.C.4.; & Attachment 1	11 & 12	Notice of Intent (NOI) and required NOI submissions	At least 90 days prior to initiation of discharges for first-time NOI submittals; 45 days prior to discharge for annual NOI renewals.
I.D.	13	Transfer of Permit Authorization	As applicable.
I.E.3. & IV.B.	13 & 48	Best Management Practices (BMP) Plan	If requesting authorization to discharge drilling fluids and drill cuttings (Discharge 001) the Plan must be submitted with the first-time NOI and kept on site. If not requesting authorization to discharge drilling fluids and drill cuttings (Discharge 001), the Plan must be completed and in place/on site, prior to commencing activities. Annual NOI renewals require a letter certifying that the Plan has been reviewed and revised, if needed. If revisions are made to the Plan, then the certification letter must include an enclosure identifying all of the changes.
I.G.3.	15	Individual Permit Application	No later than 90 days after publication of the general permit in the Federal Register.
II.A.13.d.	18	Chemical Additives Use Inventory	The inventory of chemical additives used must be submitted along with the End-of-Year Report (Section II.A.16.).
II.A.14.a.5.	20	Submit Effluent Toxicity Characterization results with Discharge Monitoring Reports (DMRs)	Submit the effluent toxicity characterization report and results with the DMR for the month following sample collection.
II.A.15.c.	21	Environmental Monitoring Program (EMP) Plan of Study	Submit with the first-time NOI and all annual NOI renewals.

REPORTS/INFORMATION (Cont.)			
PERMIT SECTIONS	**PAGE NO.**	**SUBMISSIONS AND NOTIFICATION REQUIREMENTS**	**DUE DATES**
II.A.15.f.2.	23	EMP Report	Submit with annual NOI renewal or within 1 year of completing geotechnical surveys and/or related activities (whichever comes first).
II.A.15.f.3.	23	Revised EMP Report	If required, a revised report must be submitted within 60 days of the date of request or within the time period identified, whichever time period is longer.
II.A.16.	23	End-of-Year Report	Within 90 days of ceasing geotechnical surveys and/or related activities and all authorized discharges.
II.B.3.	26	Water-Based Drilling Fluids Metals Analysis	Submit with annual NOI renewal or within 1 year of completing geotechnical surveys and/or related activities (whichever comes first) if barite is added to the drilling fluid formulation.
II.D.3.	32	Marine Sanitation Device (MSD) Annual Testing	Note on the December DMR the results of the MSD test.
III.B.	43	NetDMR	No later than the 20th of the month following the completed reporting period.
IV.A.1. & IV.A.5.	47, 48	Quality Assurance Project Plan (QAPP)	If requesting authorization to discharge drilling fluids and drill cuttings (Discharge 001) the Plan must be submitted with the first-time NOI and kept on site. If not requesting authorization to discharge drilling fluids and drill cuttings (Discharge 001), the Plan must be completed and in place/on site, prior to commencing activities. Annual NOI renewals require a letter certifying that the Plan has been reviewed and revised, if needed. If revisions are made to the original Plan, the certification letter must include an enclosure identifying all of changes.

REPORTS/INFORMATION (Cont.)			
PERMIT SECTIONS	**PAGE NO.**	**SUBMISSIONS AND NOTIFICATION REQUIREMENTS**	**DUE DATES**
IV.C.2.	53	Drilling Fluid Plan	Submit with the NOI if requesting authorization to discharge drilling fluids and cuttings (Discharge 001). A copy of the Plan must be kept on site. Annual NOI renewals require the permittee to submit to the Director a letter certifying that the Plan submitted with the first-time NOI has been reviewed and revised, if needed. If revisions are made to the original drilling fluids plan, the certification letter must include an enclosure identifying all changes made to the plan.
VI.B.1.	59	Duty to Reapply (Application Renewal)	At least 45 days prior to commencing geotechnical surveys and/or activities each season; and at least 180 days before the expiration date of the general permit.
VI.C.	60	Duty to Provide Information	As specified in the request for information.

NOTIFICATIONS			
PERMIT SECTIONS	**PAGE NO.**	**SUBMISSIONS AND NOTIFICATION REQUIREMENTS**	**DUE DATES**
I.E.1.	13	Prior to Initiation of Discharges	Within 7 calendar days prior to initiation of any discharge at the first geotechnical survey and/or related activities site of the calendar year.
I.E.2.	13	Authorized Discharge Cessation	Within 30 calendar days of ceasing geotechnical surveys and/or related activities and all authorized discharges at the last geotechnical activity site of the calendar year.
I.E.4.	14	Permit Coverage Termination	When general permit coverage is no longer needed.
II.A.14.f.1.	23	Location of proposed geotechnical activity site in or near a sensitive biological area or habitat	Within 7 calendar days from receipt of the physical sea bottom survey data, if the data indicates the proposed geotechnical survey and/or related activities site is located in or near a sensitive biological area or habitat.
II.B.4.a.2. & II.B.4.b.2.	27	Discharge 001 Cessation During Bowhead Whale Hunting	Submit documentation with the December DMR identifying the dates and times Discharge 001 was ceased and restarted due to bowhead whale hunting activities.
III.G.1.a. & III.G.1.b.	44, 44	Twenty-Four Hour Notice of Noncompliance	Telephone notice within 24 hours from the time the permittee becomes aware of the noncompliance.
III.G.1.c.	45	Written Notice of Noncompliance	Written notice within 5 days of the time the permittee becomes aware of the noncompliance.
III.G.2.	45	Other Noncompliance Reporting	Report all noncompliance not required under III.G.1.a. and III.G.1.b. with the DMRs.
III.H.1.	46	Changes in Discharge of Toxic Substances	Submit a notification as soon as the permittee becomes aware of a discharge not limited in the general permit.
III.I.	47	Compliance Schedules	No later than 14 days following each schedule date.

NOTIFICATIONS (CONT.)			
PERMIT SECTIONS	**PAGE NO.**	**SUBMISSIONS AND NOTIFICATION REQUIREMENTS**	**DUE DATES**
IV.B.5.b. & IV.B.7-8.	50; 52	BMP Annual Certification and Certification of Changes	Must be submitted with the December DMR.
V.A.	55	Duty to Comply	Submit a notification of any planned changes in the facility or activities that may result in noncompliance with general permit requirements.
V.F.2.a.	57	Anticipated Bypass	At least 10 days before the date of the bypass.
V.F.2.b.	57	Unanticipated Bypass	See Section III.G. (page 44)
V.I.	58	Planned Changes	As soon as possible of any planned physical changes to the permitted facility.
V.J.	59	Anticipated Noncompliance	Advance notice of planned changes that may result in noncompliance.
VI.E.3.	61	Changes to Authorization	Prior to, or together with, any reports, information, or applications to be signed by an authorized representative.

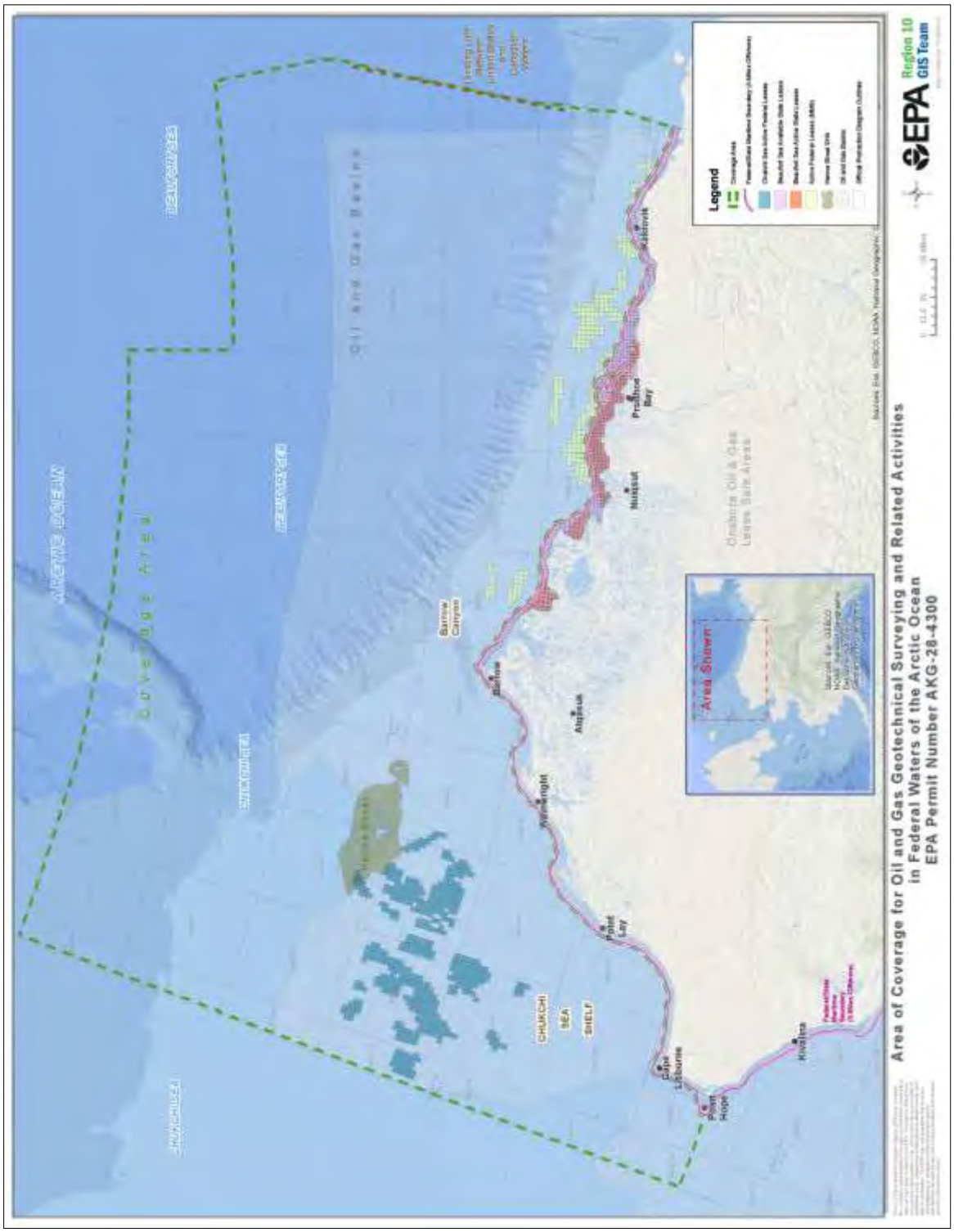

FIGURE 1: *Area of coverage under the general permit.*

I. APPLICABILITY AND NOTIFICATION REQUIREMENTS

A. SOURCES

This general permit authorizes discharges from facilities engaged in oil and gas geotechnical surveys to evaluate the subsurface characteristics of the seafloor and related activities in federal waters of the Beaufort and Chukchi Seas. Geotechnical borings are collected to assess the structural properties of subsurface sediment conditions for potential placement of oil and gas installations, which may include production and drilling platforms, ice islands, anchor structures for floating exploration drilling vessels, and potential buried pipeline corridors. Geotechnical surveys result in a disturbance of the seafloor and may produce discharges consisting of sediment, rock and cuttings materials, in addition to facility-specific waste streams authorized under this general permit. Geotechnical "related activities" also result in a disturbance of the seafloor and produce similar discharges. Such related activities may include feasibility testing of mudline cellar construction equipment or other equipment that disturbs the seafloor, and testing and evaluation of trenching technologies.

This general permit does not authorize discharges associated with any activities requiring either of the following: (1) an Exploration Plan submitted to the Bureau of Ocean Energy Management (BOEM) for approval pursuant to 30 CFR 550 Subpart B; or (2) an Application for Permit to Drill (APD) submitted to the Bureau of Safety and Environmental Enforcement (BSEE) pursuant to 30 CFR 250 Subpart D. Additionally, this general permit does not authorize discharges associated with geotechnical surveys or related activities greater than 500 feet (152 meters) in depth below the sea floor.

B. AREA OF COVERAGE

This general permit covers the area of federal waters of the United States in the Beaufort and Chukchi Seas, located seaward from the outer boundary of the territorial seas to the U.S. and Russia border and extending northward to the Alaska, USA and Yukon, Canada border as shown in Figure 1.

C. AUTHORIZATION TO DISCHARGE

1. Applicants seeking coverage under this general permit must submit a Notice of Intent (NOI) to the U.S. Environmental Protection Agency (EPA) Region 10 Director of the Office of Water and Watersheds (Director) at least 90 days prior to initiation of discharges when requesting authorization to discharge for the first time under this general permit. A first time NOI submission is required for each Geotechnical Facility (as defined in Section VII) not previously covered under the Geotechnical GP. The applicant must use the NOI information sheet in Attachment 1 of the Geotechnical GP as part of the NOI submission. Only complete NOIs will be considered by EPA. Each

NOI must be signed in accordance with the Signatory Requirements of Section VI.E. of this general permit.

2. Applicants must submit an annual NOI renewal package to maintain active coverage under the general permit. Annual NOI renewals may be used by Geotechnical Facilities that have been previously authorized to discharge under the Geotechnical GP. Annual NOI renewals do not apply to Geotechnical Facilities that have not received prior coverage under this general permit. Annual NOI renewal packages must be submitted to the Director at least 45 days prior to initiation of discharges. The applicant must use the NOI information sheet in Attachment 1 of the Geotechnical GP as part of their annual NOI renewal package. Only complete annual NOI renewals will be considered by EPA. Each annual NOI renewal must be signed in accordance with the Signatory Requirements of Section VI.E. of this general permit.

3. Submittal of an NPDES permit application that meets the NOI information requirements identified in Attachment 1 constitutes submittal of an NOI.

4. Along with the complete NOI, an applicant must submit to EPA copies of any ancillary activities reports, biological surveys, and/or environmental reports required by other regulatory agencies that will permit or otherwise authorize the operation of the Geotechnical Facility that the applicant seeks to cover under this general permit. This requirement for submission of reports and surveys required by other regulatory agencies is waived if: (1) the NOI is submitted pursuant to Section VI.B. (Duty to Reapply), (2) the documents were submitted to EPA previously, and the applicant verifies in writing that the reports and surveys previously submitted to EPA have not been changed, revised, or updated. If these reports and/or surveys are not available at the time of the NOI submission, the permittee must indicate which documents are missing and must submit them once available.

5. An applicant is authorized to discharge under this general permit on the date the applicant receives written notification from the Director granting authorization to discharge and assigning a permit number to the applicant. For annual renewals the applicant is authorized to continue discharging under the Geotechnical GP on the date the applicant receives written confirmation from EPA that the annual NOI renewal package has been deemed complete. After initial authorization and fulfillment of the annual NOI renewal requirements, a permitted Geotechnical Facility may discharge during the effective period of this general permit in accordance with the limits and conditions set forth herein. This general permit authorizes the discharge of only those pollutants that are expressly identified in a permit application or NOI for coverage under the Geotechnical GP, and are authorized by the Director.

6. A source excluded from a general permit solely because it already has an individual permit may request that the individual permit be revoked, and that it be covered by the general permit. If the Director determines the source may be covered under this general permit, the general permit will apply to the source upon revocation of the individual permit.

D. TRANSFERS

1. Authorization under this general permit is not transferable to any person or entity unless:

a. a written request for transfer is submitted to the Director; and

b. a written notification of approval is received from the Director

E. NOTIFICATIONS

1. Prior to Initiation of Discharges. The permittee must notify the Director, in writing, 7 calendar days prior to initiation of any discharge at the first geotechnical activity site of the calendar year. The notification described in this paragraph must be signed in accordance with the Signatory Requirements (Section VI.E.) of this general permit. If logistical issues or weather complications delay the operator beyond the intended initial discharge date, then the permittee needs to provide a revised notification to the Director and signed in accordance with the Signatory Requirements (Section VI.E.).

2. Authorized Discharge Cessation. The permittee must notify the Director, in writing, within 30 calendar days of ceasing geotechnical surveying and related activities, and all authorized discharges at the final geotechnical activity location of the calendar year. The notification must include the general permit number and the date of final geotechnical surveys and/or related activities and discharge cessation. The notification described in this paragraph must be signed in accordance with the Signatory Requirements (Section VI.E.) of this general permit.

3. Best Management Practices Plan. The permittee must submit the Best Management Practices (BMP) Plan with the first-time NOI submitted under this general permit if requesting authorization to discharge drilling fluids and drill cuttings (Discharge 001). The permittee must submit documentation of the annual review certification and any changes to the BMP Plan to the Director with the annual NOI renewal package. The notification described in this paragraph must be signed in accordance with the Signatory Requirements (Section VI.E.) of this general permit.

For those operators who intend to only use seawater (without additives) to conduct geotechnical surveys and related activities, or those that intend to conduct on-ice activities and discharge only a single waste stream, such as drill cuttings not associated with drilling fluids (Discharge 011), the BMP

does not need to be included with the NOI package. The BMP Plan must be completed prior to commencing activities and retained on site.

4. Permit Coverage Termination. The permittee must notify the Director, in writing, when general permit coverage is no longer needed. This notification may be submitted with the End-of-Year report required under Section II.A.16., provided modifications to the Environmental Monitoring Program Report (if applicable) are not required under Section II.A.15.f.3. The permittee must certify in the notification that the permittee is not subject to any pending enforcement actions including citizen suits brought under state or federal laws. The notification must include the general permit number, and be signed in accordance with the Signatory Requirements (Section VI.E.) of this general permit.

F. SUBMISSION OF INFORMATION

1. The applicant/permittee must submit legible originals of all NOIs (Section I.A.C.1-2.), EMP reports (Section II.A.15.f.), and notifications to the Director at the following address:

Director, Office of Water and Watersheds
United States Environmental Protection Agency, Region 10
1200 Sixth Avenue, Suite 900, OWW-130
Seattle, Washington 98101

Copies must be sent to EPA's Alaska Operations Office at the following address:

EPA – Alaska Operations Office
Oil and Gas Sector
222 West 7th Avenue, #19
Anchorage, Alaska 99513

2. The permittee must submit all discharge monitoring reports (DMRs), other reports required by this general permit (except EMP reports required by Section II.A.15.f.), and all notices of noncompliance electronically using NetDMR (see Section III.B.).

G. REQUIREMENTS FOR AN INDIVIDUAL PERMIT

1. In accordance with 40 CFR 122.28(b)(3), the Director may require any permittee discharging under the authority of this general permit to apply for an individual NPDES permit if he or she determines that any of the following conditions apply, including, but not limited to those listed below:

a. The discharger is not in compliance with the conditions of this general NPDES permit;

b. A change has occurred in the availability of demonstrated technology or practices for the control or abatement of pollutants applicable to the point source;

c. A Water Quality Management Plan containing requirements applicable to such a point source is approved;

d. Circumstances have changed since the time of the request to be covered so that the discharger is no longer appropriately controlled under this general permit, or either a temporary or permanent reduction or elimination of the authorized discharge is necessary; or

e. The discharge(s) is a significant contributor of pollutants.

2. The Director may require any owner or operator authorized by this general permit to apply for an individual NPDES permit only if the permittee has been notified in writing that an individual permit application is required.

3. Any permittee authorized by this general permit may request to be excluded from the coverage of the general permit by applying for an individual permit. The permittee must submit an individual permit application with reasons supporting the request to the Director at the address in Section I.F.1. no later than 90 days after the publication by the Director of the general permit in the Federal Register. Upon issuance of an individual NPDES permit, the permittee's coverage (if authorized) under this general permit will be automatically terminated on the effective date of the individual permit.

II. LIMITATIONS AND MONITORING REQUIREMENTS

A. REQUIREMENTS FOR ALL DISCHARGES

1. During the effective period of the initial authorization to discharge under this general permit, and upon fulfillment of the annual NOI renewal requirements, the permittee is authorized to discharge pollutants from those waste streams indicated in its discharge authorization to federal waters of the Beaufort and Chukchi Seas (see Figure 1), subject to the limits and conditions set forth herein.

2. This general permit authorizes the discharge of only those pollutants resulting from facility processes, waste streams and operations that are expressly identified in a permit application or NOI, and that are discharged from facilities conducting oil and gas geotechnical surveys or related activities within the Area of Coverage (see Figure 1).

3. All effluent samples collected from any effluent stream must be taken after the last treatment unit and before discharge into receiving waters, except as otherwise required by discharge-specific provisions of this general permit.

4. The permittee must comply with the effluent limits in this general permit at all times, unless otherwise indicated, regardless of the frequency of monitoring or reporting required by other provisions of the general permit.

5. If an authorized waste stream is discharged through multiple outfalls, the permittee is required to meet the permit's terms and conditions, including sampling requirements, for each individual outfall.

6. Chukchi Sea Spring Lead System Seasonal Restriction. The permittee is prohibited from discharging any waste stream within the Chukchi Sea lease deferral corridor, which corresponds to the area 3-25 nautical miles offshore, prior to July 1. Figure 2 (below) provides a map of where the seasonal restriction applies.

7. The permittee is prohibited from discharging floating solids, debris, sludge, deposits, foam, scum, or other residues of any kind.

8. The permittee is prohibited from discharging surfactants, dispersants and detergents under the general permit.

9. The permittee is prohibited from discharging diesel oil, halogenated phenol compounds, trisodium nitrilotriacetic acid, sodium chromate, or sodium dichromate.

10. The permittee is prohibited from discharging any waste stream to stable ice.

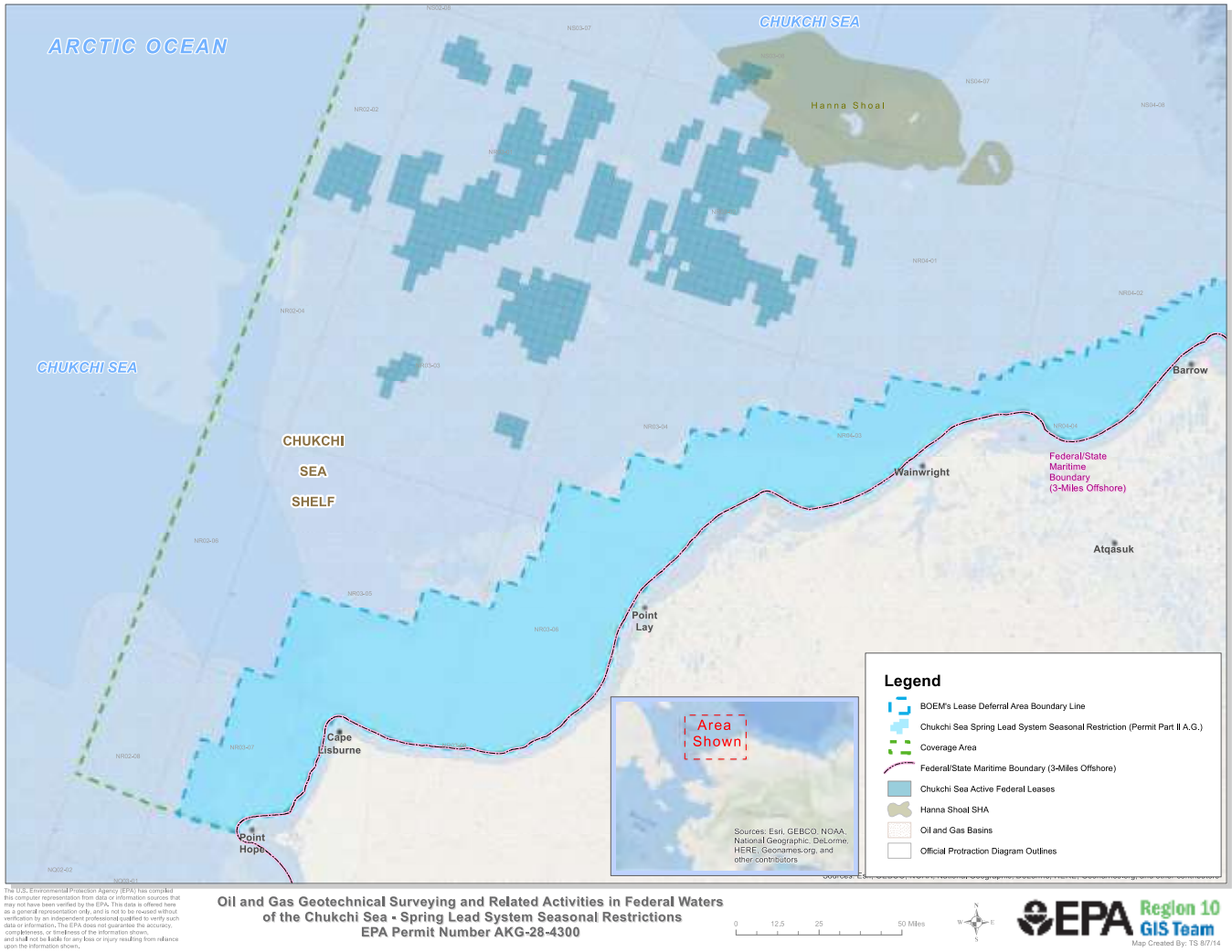

FIGURE 2: *Chukchi Sea Spring Lead System Seasonally Restricted Area (see Permit Part II.A.6.)*

11. Any commingled discharges are subject to the most stringent effluent limitations for each individual discharge. If any individual discharge is not authorized, then a commingled discharge is not authorized.

12. When visual monitoring is required, the permittee must conduct visual monitoring of the receiving water surface in the vicinity of the outfall(s) at a time of maximum estimated or measured discharge.

13. Chemical Additives Use Inventory and Limitations.

a. The concentration of chemical additives (e.g., treatment chemicals, biocides, corrosion inhibiters, etc.) in any authorized discharge (i.e., Discharges 001–012) must not exceed the most stringent of the following two limitations:

1. the maximum concentrations and any other conditions specified in the EPA product registration labeling if the chemical is an EPA registered product; or

2. the maximum manufacturer's recommended concentration.

b. The permittee must keep an inventory of chemical additives used for Discharges 001–012. The inventory of chemical additives used must include the commercial product names, the EPA registration number, constituents, total quantities used, rates of use, where in the process they are used, and calculated maximum concentrations in any discharged waste stream.

c. The calculations of maximum concentrations must be based on the amount of chemical additives added to the volume of the waste stream discharged. The permittee must include the chemical additive implementation procedures, calculation methods, and record keeping and reporting procedures in the BMP Plan.

d. The inventory of chemical additives used and documentation of each additive's concentration determinations and limitation compliance must be submitted along with the End-of-Year Report (Section II.A.16.).

14. Effluent Toxicity Characterization. The permittee must conduct toxicity tests on the following discharges when chemicals are added to the systems: 002 (deck drainage); 005 (desalination unit wastes); 006 (bilge water); 007 (boiler blowdown); 008 (fire control system test water); and 009 (non-contact cooling water). The following toxicity test must be conducted once (1) per week for continuous discharges, or once (1) per discharge event for intermittent discharges, until chemical treatment has ceased for the identified waste streams.

a. Echinoderm Rapid Automated Toxicity Test. If the permittee is authorized to discharge the waste streams listed in Section II.A.14., then the permittee must conduct the echinoderm fertilization test (Section 16 of EPA/600/R-95-136).

1. Effluent samples for toxicity testing shall be grab samples. A split of each sample collected for the toxicity testing must be analyzed for free oil, pH and temperature, using the specified sample type as required in Sections II.C., II.E., II.F., II.G., II.H., and II.I, of the permit. The permittee must document the trigger threshold and whether or not the toxicity threshold was exceeded for the tested discharges in the DMR following sample collection.

2. The presence of toxicity must be determined as specified in EPA/600/R-95-136. Results must be reported in chronic toxic units (TU_C), which is defined as follows:

i. For survival endpoints, $TU_C = 100/NOEC$

ii. For all other test endpoints, $TU_C = 100/IC_{25}$

iii. NOEC means the "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).

iv. 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).

3. Quality Assurance

i. The toxicity testing on the organism must include a series of five test dilutions and a control. The dilution series shall be 100, 50, 25, 12.5, 6.25, and 0 (control) percent effluent.

ii. All quality assurance criteria and statistical analysis used for toxicity tests must be in accordance with EPA/600/R-95-136.

iii. In addition to those quality assurance measures specified in the test methods manuals, the following quality assurance procedures must be followed:

- 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.
- If either of the reference toxicant tests or the effluent tests do not meet all test acceptability criteria as specified in the test methods manuals, the permittee must re-sample and re-test within 14-days of receipt of the test result. Non-continuous, intermittent, or seasonal dischargers which have ceased discharging (and thus cannot collect a new sample within 14-days) are required to re-test during their next discharge event.

4. Control and dilution water must be receiving water or lab water, as appropriate, as described in the test methods manuals. If the dilution water used is different from the culture water a second control, using culture water, must be also be used. Receiving water may be used as control and dilution water upon notification to EPA. In no case shall water that has not met test acceptability criteria be used for either dilution or control water.

5. Reporting

i. The permittee must submit the results of the toxicity test with the following month's discharge monitoring report (DMR).

ii. The report of toxicity testing results must include all relevant information outlined in the Report Preparation section of the EPA/600/R-95-136. In addition to the toxicity testing results, the permittee must report: dates of sample collection and initiation of each test; effluent flow rate at the time of sample collection; and the results of the free oil, pH and temperature monitoring, as required in Sections II.C., II.E., II.F., II.G., II.H., and II.I, of the permit.

15. Environmental Monitoring Program. The permittee must design and implement an environmental monitoring program (EMP) for geotechnical surveys and/or related activities that includes, if applicable, the following phases:

- Baseline Site Characterization (Phase I) – required at each geotechnical activity site or submission of existing, representative baseline data.
- Drilling Fluids and Drill Cuttings Deposition Evaluation (Phase II) – required if water-based drilling fluids are be used to conduct the

geotechnical activity, or if the Director requests completion of Phase II upon review of Phase I data. Unless otherwise specified by the Director, a Phase II analysis is not required if: (1) the geotechnical activities are located within the lease blocks whereby an EMP has been previously conducted pursuant to the 2012 Beaufort & Chukchi Exploration NPDES General Permits (AKG-28-2100 and AKG-28-8100); or (2) the permittee is not using water-based drilling fluids.

The EMP shall meet the following goals, objectives and other requirements.

a. Goals

1. evaluate potential impacts of water-based drilling fluids and drill cuttings associated with geotechnical surveys and/or related activities on the marine environment;

2. protect the marine environment; and

3. collect data during this permit term for use in future permit developments.

b. Objectives

1. complete baseline site characterizations or submit existing, representative baseline data, to ensure the authorized discharges do not impact sensitive biological areas or habitats;

2. ensure that the geotechnical survey and/or related activity locations do not impact potential historic properties; and

3. evaluate the areal extent of solids deposition associated with Discharge 001 at the seafloor.

c. Plan of Study. The applicant must submit an EMP Plan of Study to the Director for review with the first-time NOI and the annual NOI renewal. The Plan of Study must include the permittee's EMP scope of work and existing, representative baseline data (Phase I), if available. The applicant must incorporate any changes to the EMP Plan of Study required by the Director, which will be included in the discharge authorization letter. The EMP must address the EMP goals, objectives and main components. A Plan of Study must include the following:

1. the EMP goals, objectives and phases discussed in Sections II.A.15.a.-c.;

2. each element of the EMP, pursuant to Sections II.A.15.d.-e.;

3. all monitoring procedures and methods;

4. a quality assurance project plan (see Section IV.A.);

5. a detailed discussion of how data will be used to meet, test, and

evaluate the EMP objectives; and

6. a summary of results from previous environmental monitoring studies at the geotechnical activity site that are relevant to the EMP goals and objectives.

d. Baseline Site Characterization (Phase I).

1. Initial Physical Sea Bottom Survey. Conduct an assessment of the physical sea bottom before initiating discharges authorized by the general permit to ensure the geotechnical activity site does not impact a sensitive biological area, habitat, or is in the vicinity of historic properties. The survey should provide both a physical and visual characterization of the seafloor. If the proposed initial site is located in or near a sensitive biological area, habitat, or in the vicinity of historic properties, the permittee must report the information to the Director in accordance with Section II.A.15.f.1.

To meet this requirement, the permittee may submit existing baseline survey data that are representative of the site location and demonstrate that the geotechnical activity site is not located in or near a sensitive biological area, habitat, or historic properties. The existing, representative baseline data must be submitted with the NOI for consideration.

2. Physical Characteristics. Collect physical data to characterize the conditions of the geotechnical activity site and receiving waters. These physical data must include surface wind speed and direction, current speed and direction throughout the water column, water temperature, salinity, depth, and turbidity.

To meet this requirement, the permittee may submit existing site baseline survey data, provided the physical data (i.e. wind/current speed and direction, water temperature, salinity, turbidity) is demonstrated to be representative across the geotechnical survey and/or related activity site.

e. Drilling Fluids and Drill Cuttings Deposition Evaluation (Phase II). Conduct a physical sea bottom survey immediately following cessation of geotechnical activities at the site if water-based drilling fluids are used. The physical sea bottom survey must include a visual characterization of the seafloor and a narrative discussion of the areal extent and depth/thickness of solids deposition caused by Discharge 001, and discuss any potential overlap from deposition caused by nearby exploration activities.

f. EMP Reports. The permittee must submit an annual EMP report to the Director.

1. The permittee must notify the Director, in writing, 7 calendar days from receipt of the initial physical sea bottom survey data, if the data indicates the proposed geotechnical activity is located in or near a sensitive biological area, habitat, or in the vicinity of historic properties. The notification described in this paragraph must be signed in accordance with the Signatory Requirements (Section VI.E.) of this general permit.

2. The permittee must submit the EMP report with the annual NOI renewal or within 1 year of completing geotechnical surveys and/or related activities, whichever comes first. The EMP report must contain the following information:

i. summary of the results for the applicable phases of the environmental monitoring;

ii. discussion of how the EMP goals and objectives were accomplished;

iii. analytical test methods used for data analysis (if applicable);

iv. description of any observed impacts of the effluent on the physical characteristics of the receiving water environment;

v. description of the data, evaluations and determinations with regard to each EMP phase; and

vi. all relevant quality assurance/quality control information including, but not limited to, laboratory instrumentation, laboratory procedures, analytical method detection limits, analytical method precision requirements, and sample collection methodology (if applicable).

3. If the Director requires revisions to the EMP report, the permittee must complete the revisions and submit a revised report to the Director within 60 days of the date of the request or within the time period identified by the Director, whichever time period is longer.

g. Implementation and Modification. The EMP may be modified if the Director determines that the modification is appropriate. Modifications to the EMP may include changes in sampling location, changes in sample frequency, or changes to parameters to be monitored. This determination will be made by the Director upon receipt of the first-time NOI and/or annual NOI renewal package.

16. End-of-Year Report. The permittee is required to submit an end-of-year report to the Director within 90 days of ceasing all geotechnical surveys and/or related activities and all authorized discharges for the remainder of the calendar year. The report must be signed and certified in accordance

with the Signatory Requirements (Section VI.E.) of this general permit. The permittee must include the following information in the end-of-year report:

a. summary of geotechnical surveys and related activities conducted during the calendar year.

b. for geotechnical surveying activities (i.e. borehole sampling/drilling):

1. total number of boreholes sampled/drilled during the calendar year.

2. summary of individual boreholes

i. borehole names (if applicable) and borehole identification numbers;

ii. latitude and longitude for each borehole

iii. beginning activity date, and length of sampling/ drilling activities at each borehole;

iv. the borehole diameter;

v. the borehole depth;

vi. total discharge volumes of drilling fluids and drill cuttings (Discharge 001); and

vii. total discharge volumes of drill cuttings not associated with drilling fluids (Discharge 011).

c. for "related activities" (i.e. feasibility testing of equipment, etc…):

1. total number of related activity sites (not including boreholes, which are addressed under Section II.A.16.b.)

2. description of each related activity site (not including boreholes, see Section II.A.15.b.), including:

i. nature of the activity;

ii. latitude and longitude for each discharge site;

iii. beginning activity date, and length of sampling/ drilling activities at each site; and

iv. dimensions of the drilling/activity site (i.e. diameter, length, width, depth below seafloor, etc…).

d. a map indicating the locations of each site of discharge (i.e. borehole and/or related activities site);

e. a report of discharge volumes for Discharges 001 through 012, including a discussion of any significant deviations between the final discharge volumes and the estimated discharge volumes contained in the original NOI and/or the annual NOI renewal(s);

f. a report of separate total daily volumes for drilling fluids and drill cuttings associated with Discharge 001 (Section II.B., Table 1, footnote 6);

g. a report of separate total daily volumes for drill cuttings not associated with drilling fluids (Discharge 011).

h. the chemical additive inventories, and documentation of each additive's concentration and limitations determinations, required for each Discharge in accordance with Section II.A.13.;

i. the Material Safety Data Sheet (MSDS) for each chemical used;

j. the base drilling fluid type and the total volume used annually and per geotechnical surveying and/or related activity site;

k. the amount of additives used in the drilling fluid formulation;

l. the amount of barite used in the drilling fluid formulation;

m. the total volumes of each drilling fluid type discharged to surface waters; and

n. summary of the mud-pit clean up discharge volumes.

B. REQUIREMENTS FOR WATER-BASED DRILLING FLUIDS AND DRILL CUTTINGS (DISCHARGE 001)

1. If authorized, the permittee may discharge water-based drilling fluids and drill cuttings subject to the effluent limitations and requirements herein. The permittee must limit and monitor Discharge 001 as specified in Table 1. The permittee must comply with the effluent limits in Table 1 at all times unless otherwise indicated, regardless of the frequency of monitoring or reporting required by other provisions of this general permit.

2. Mud pit clean-up wastes must be discharged at the seafloor and in compliance with the effluent limits in Table 1.

3. Water-Based Drilling Fluids Metals Analysis. The permittee must analyze each drilling fluid formulation for the metal contaminants of concern if barite is added to the drilling fluid formulation (see Table A). This analysis is required once (1) per drilling fluid formulation, and the analysis may be conducted "pre-season." If a new drilling fluid formulation is used and/or a new "lot" or supply of barite is used during the geotechnical season, then a new metals analysis is required. The permittee may propose an alternative list of metals based on site-specific data. The results of the water-based drilling fluids metals analysis must be submitted to the Director with the annual NOI renewal or within 1 year of completing geotechnical surveys and/or related activities (whichever comes first).

TABLE A: Metal Contaminants of Concern	
Aluminum	Mercury (total/methyl)
Antimony	Nickel
Arsenic	Selenium
Barium	Silver
Beryllium	Thallium
Cadmium	Tin
Chromium	Titanium
Copper	Zinc
Iron	Lead

Analyses for total recoverable concentrations must be conducted and reported for each metal using methods specified in 40 CFR Part 136. The results must be reported in "mg/kg of whole mud (dry weight)" and moisture content (percent by weight) of the original drilling fluid sample. Determine partition coefficients for calculating dissolved metals concentrations. All samples must be collected prior to use and any predilution.

4. Seasonal Restrictions.

a. Spring Bowhead Whale Hunting Restrictions (Chukchi Sea). The permittee is prohibited from discharging water-based drilling fluids and drill cuttings (i.e., Discharge 001) to federal waters of the Chukchi Sea during spring bowhead whale hunting by the communities of Barrow, Point Hope, Point Lay and Wainwright.

1. The permittee must cease Discharge 001 starting on March 25 and may not resume discharging until after bowhead whale hunting activities are completed. The permittee must submit an electronic written request to EPA to resume Discharge 001, along with supporting documentation demonstrating that bowhead whale hunting activities have ceased. EPA will respond to the permittee via electronic mail within 7 calendar days of receiving this request. EPA will authorize the permittee to resume Discharge 001, provided sufficient supporting documentation has been submitted by the permittee and EPA has confirmed that bowhead whale hunting activities have concluded.

2. The permittee must submit documentation to the Director with the July DMR identifying the dates and times that Discharge 001 was ceased and restarted due to spring bowhead whale hunting activities.

b. Fall Bowhead Whale Hunting Restrictions (Beaufort Sea). The permittee is prohibited from discharging water-based drilling fluids and drill cuttings (i.e., Discharge 001) to federal waters of the Beaufort Sea during fall bowhead whale hunting by the communities of Barrow, Nuiqsut, and Kaktovik.

1. The permittee must cease Discharge 001 starting on August 25, and may not resume discharging until after bowhead whale hunting activities are completed. The permittee must submit an electronic written request to EPA to resume Discharge 001, along with supporting documentation demonstrating that bowhead whale hunting activities have ceased. EPA will respond to the permittee via electronic mail within 7 calendar days of receiving this request. EPA will authorize the permittee to resume Discharge 001, provided sufficient supporting documentation has been submitted by the permittee and EPA has confirmed that bowhead whale hunting activities have concluded.

2. The permittee must submit documentation to the Director with the December DMR identifying the dates and times that Discharge 001 was ceased and restarted due to fall bowhead whale hunting activities.

5. The permittee is only authorized to discharge those drilling fluids, and specialty additives that meet the provisions of this general permit and are contained in the permittee's Drilling Fluid Plan.

TABLE 1: Effluent Limitations and Monitoring Requirements for Water-Based Drilling Fluids and Drill Cuttings (Discharge 001)

Discharge	Pollutant Parameter	Effluent Limitation		Monitoring Requirements	
		Average Monthly Limit	Maximum Daily Limit	Measurement Frequency	Sample Type
Water-based fluids and cuttings	SPP toxicity [Note 1,9]	Minimum 96-hour LC_{50} of 30,000 ppm		Once per season [Note 1]	Grab [Note 2]
	Drilling fluids and cuttings	Discharge allowed [Note 3, 9]		Daily	Grab
	Free oil	No discharge [Note 4, 9]		Daily	Grab
	Diesel oil	No discharge [Note 5, 9]		Daily	Grab
	Mercury	1 mg/kg [Note 6]		Once per season [Note 6, 7]	Grab
	Cadmium	3 mg/kg [Note 6]		Once per season [Note 6, 7]	Grab
	pH	Report (s.u.)		Once per season	Grab
	Total Volume	See Section II.A.15. (gal)		Daily	Estimate [Note 8]
Non-aqueous fluids	--	No discharge		--	--
Non-aqueous cuttings	--	No discharge		--	--

FOOTNOTES:

1 As determined by the 96-hour suspended particulate phase (SPP) toxicity test in accordance with Appendix 2 to Subpart A of 40 CFR Part 435, Drilling Fluids Toxicity Test. The discharge of water-based drilling fluids or drill cuttings generated using drilling fluids with a daily minimum or monthly average minimum 96-hour LC_{50} of less than 30,000 ppm is prohibited. The permittee may conduct this test pre-season and no less than once per season. If a new drilling fluid formulation is to be used during the course of the geotechnical program, then a new SPP toxicity test must be conducted.

2 The permittee must analyze a representative initial sample of drilling fluids either during pre-season preparations or from the mud pit prior to commencing geotechnical drilling operations.

3 No discharge allowed upon failure of the static sheen test as determined in accordance with Appendix 1 to Subpart A of 40 CFR Part 435, Static Sheen Test.

4 The permittee must analyze a representative initial sample of drilling fluids from the mud pit prior to commencing geotechnical drilling operations using the static sheen test in accordance with Appendix 1 to Subpart A of 40 CFR Part 435, Static Sheen Test.

5 The discharge of drilling fluids or drill cuttings generated using drilling fluids which contain diesel oil is prohibited. Compliance will be demonstrated by gas chromatograph (GC) analysis of any drilling fluids or drill cuttings that fail the static sheen test and compared to GC analysis of diesel oil in storage on the facility. Whenever drilling fluids fail the static sheen test, the permittee is required to analyze an undiluted sample of the material which failed the test to determine the presence or absence of diesel oil in accordance with EPA SW846 Method 8015C (2007). Gas chromatography/mass spectrometry (GC/MS) may be used if an instance should arise where the permittee and the Director determines that greater resolution of the drilling fluid "fingerprint" is needed for a particular drilling fluid sample.

6 Required if barite is added to the drilling fluid formulation. Dry weight in the stock barite. Results must be expressed as mg/kg (dry weight) of barite.

7 Required if barite is added to the drilling fluid formulation. The permittee must analyze a representative initial sample of stock barite either during pre-season preparations or prior to drilling at the first geotechnical borehole location of the calendar year and submit the results with the DMR for the month in which operations commence. If any analytical result exceeds the mercury or cadmium effluent limitations in Table 1, the permittee must report the results to the Director in accordance with Section III.G., including the twenty-four hour notice of noncompliance requirement, of this general permit. If the permittee uses the same supply of stock barite to replenish the mud pit during the season's operations, the permittee may submit the same analysis if no new supplies of barite have been received since the prior analysis. In this case, the DMR should state that no new barite was received since the last reported analysis. If a new drilling fluid formulation is used and/or a new "lot" or supply of barite is used during the geotechnical season, then a new analysis for mercury and cadmium is required.

8 Record separate total daily volumes of drilling fluids and drill cuttings and report the separate daily volumes in the End of Year Report. Report combined total volume of drilling fluids and drill cuttings discharged on a calendar day in the DMR.

9 The permittee must report the following discharge occurrences of noncompliance to the Director in accordance with Section III.G.l., including the twenty-four hour notice of noncompliance requirement, of this general permit: (a) exceedance of the SPP toxicity limitation; (b) failure of the static sheen test; or (c) presence of diesel oil.

C. REQUIREMENTS FOR DECK DRAINAGE (DISCHARGE 002)

1. If authorized, the permittee may discharge deck drainage subject to the effluent limitations and requirements herein. The permittee must limit and monitor Discharge 002 as specified in Table 2. The permittee must comply with the effluent limits in Table 2 at all times unless otherwise indicated, regardless of the frequency of monitoring or reporting required by other provisions of this general permit.

2. The permittee must separate area drains for washdown and rainfall that may be contaminated with oil and grease from those area drains that would not be contaminated so that the waste streams are not commingled.

3. The permittee must ensure that deck drainage contaminated with oil and grease is processed through an oil-water separator prior to discharge.

TABLE 2: Effluent Limitations and Monitoring Requirements for Deck Drainage (Discharge 002)

Effluent Parameter	Units	Effluent Limitations		Monitoring Requirements	
		Average Monthly Limit	Maximum Daily Limit	Sample Frequency	Sample Type
Free oil	---	No discharge [Note 1]		Once per discharge event	Grab & Visual
Total volume	Gal	Report		Monthly	Estimated
pH	s.u.	Report		Monthly	Grab
Toxicity Testing [Note 2]	TU_C	Report		Section II.A.13.	Grab [Note 3]

FOOTNOTES:

1 Once per discharge event, the permittee must sample deck drainage discharges that are processed through an oil-water separator and test for sheen using the static sheen test in accordance with Appendix 1 to Subpart A of 40 CFR Part 435, Static Sheen Test. During periods of discharge, the permittee must also conduct a visual observation for visual sheen as determined by the presence of a film or sheen upon or a discoloration of the surface of the receiving water.

2 Toxicity testing is required if chemicals are added to the system. Refer to Section II.A.14 of this general permit.

3 Sample must be collected from the oil-water separator effluent.

D. REQUIREMENTS FOR SANITARY AND DOMESTIC WASTES (DISCHARGES 003 AND 004)

1. If authorized, the permittee may discharge sanitary and domestic wastes subject to the effluent limitations and requirements herein. The permittee must comply with the effluent limits in this section at all times unless otherwise indicated, regardless of the frequency of monitoring or reporting required by other provisions of this general permit.

2. The permittee must limit and monitor Discharges 003 and 004 as specified in Tables 3 and 4.

3. For any facility using a marine sanitation device (MSD), the permittee must conduct annual testing of the MSD to ensure that the unit is operating properly. The permittee must note on the December DMR the results of the test. See also Table 3, Footnote 5.

4. In cases where the sanitary and domestic wastes are mixed prior to discharge, and sampling of the sanitary waste component of the discharge is infeasible, the discharge may be sampled after mixing, however, the most stringent discharge limitations for both discharges (Discharge 003 and Discharge 004) must apply to the mixed waste stream.

TABLE 3: Effluent Limitations and Monitoring Requirements for Sanitary Wastes (Discharge 003)

Effluent Parameter	Units	Effluent Limitations			Monitoring Requirements	
		Minimum Daily Limit	Average Monthly Limit	Maximum Daily Limit	Sample Frequency	Sample Type
Flow	mgd	---	---	---	Daily	Measured/ recorded
BOD_5	mg/l	---	30	60	Monthly	Grab or composite Note 1
TSS	mg/l	---	30	60	Monthly	Grab or composite Note 1
Floating Solids & Garbage		no discharge			Daily	Visual Note 2
Foam		no discharge			Daily	Visual Note 2
Oily Sheen		no discharge			Daily	Visual Note 2
pH	s.u.	6.5 – 8.5			Monthly	Grab
Fecal Coliform Bacteria Note 3	colonies/ 100 mL	---	100 Note 4	200	Annual Note 5 Monthly Note 6	Grab
Total Residual Chlorine Note 7	mg/l	1.0	---	Report	Monthly	Grab

FOOTNOTES:

1 Composite samples may be collected in lieu of grab samples and must consist of at least four equal volume grab samples, two of which must be taken during periods of peak flow.

2 Monitoring is only required when discharge occurs. The permittee must monitor by observing the surface of the receiving water in the vicinity of the outfall(s) during daylight at the time of maximum estimated discharge and during conditions when observations on the surface of the receiving water are possible in the vicinity of the discharge. The observations and time of day must be recorded. The numbers of days floating solids, garbage, foam or oily sheen are observed must be recorded and reported in the DMR.

3 If inclement weather conditions affect timely deliveries of samples, the permittee must notify EPA within 24 hours and document the conditions and reasons for any delay in the following monthly DMR.

4 Must be reported as the geometric mean.

5 Required for Geotechnical Facilities operating a U.S. Coast Guard certified Type II or Type III marine sanitation device (MSD). The permittee may demonstrate compliance with the fecal coliform limits by sampling once per year and submitting the data with the December DMR.

6 Required for Geotechnical Facilities not operating a U.S. Coast Guard certified Type II or Type III MSD.

7 Must be maintained as close to this concentration as possible. Sample must be collected immediately after chlorination and prior to any commingling of the waste streams. The analytical detection limit for this parameter is 0.1 mg/l. Residual chlorine may be monitored according to test procedures approved under 40 CFR Part 136 or using a Hach Test Kit capable of measuring free chlorine in the range of 0-3.5 mg/l with a sensitivity of 0.1 mg/l or better. Monitoring is not required if chlorine is not used as a disinfectant or for facilities serving fewer than 10 persons.

TABLE 4: Effluent Limitations and Monitoring Requirements for Domestic Wastes (Discharge 004)

Effluent Parameter	Units	Effluent Limitations		Monitoring Requirements	
		Average Monthly Limit	Maximum Daily Limit	Sample Frequency	Sample Type
Floating solids, garbage, or foam	---	No discharge		Daily [Note 1]	Visual
pH	s.u.	Report		Monthly	Grab
Flow	mgd	Report		Monthly	Estimated

FOOTNOTE:

1 Monitoring is only required when discharge occurs. The permittee must monitor by observing the surface of the receiving water in the vicinity of the outfall(s) during daylight at the time of maximum estimated discharge and during conditions when observations on the surface of the receiving water are possible in the vicinity of the discharge. The observations and time of day must be recorded. The numbers of days floating solids, garbage or foam are observed must be recorded and reported in the DMR.

E. REQUIREMENTS FOR DESALINATION UNIT WASTES (DISCHARGE 005)

1. If authorized, the permittee may discharge desalination unit wastes subject to the effluent limitations and requirements herein. The permittee must limit and monitor Discharge 005 as specified in Table 5. The permittee must comply with the effluent limits in Table 5 at all times unless otherwise indicated, regardless of the frequency of monitoring or reporting required by other provisions of this general permit.

TABLE 5: Effluent Limitations and Monitoring Requirements for Desalination Unit Wastes (Discharge 005)

Effluent Parameter	Units	Effluent Limitations		Monitoring Requirements	
		Average Monthly Limit	Maximum Daily Limit	Sample Frequency	Sample Type
Free Oil	---	No discharge [Note 1]		Once/discharge	Visual/Grab
pH	s.u.	Report		Monthly	Grab
Total Volume	gal	Report		Monthly	Estimated
Toxicity Testing [Note 2]	TU_C	Report		Section II.A.13.	Grab

FOOTNOTE:

1 Once per discharge event, the permittee must conduct a visual observation for visual sheen as determined by the presence of a film or sheen upon or a discoloration of the surface of the receiving water. The permittee must monitor by observing the surface of the receiving water in the vicinity of the outfall(s) during daylight at the time of maximum estimated discharge and during conditions when observations on the surface of the receiving water are possible in the vicinity of the discharge. The observations and time of day must be recorded. The number of days sheen is observed must be recorded and reported in the DMR. If visual observations of the discharge are not possible, the permittee must sample (grab sample) the desalination unit discharge and test for sheen using the static sheen test in accordance with Appendix 1 to Subpart A of 40 CFR Part 435.

2 Toxicity testing is required if chemicals are added to the system. Refer to Section II.A.13 of this general permit.

F. REQUIREMENTS FOR BILGE WATER (DISCHARGE 006)

1. If authorized, the permittee may discharge bilge water subject to the effluent limitations and requirements herein. The permittee must limit and monitor Discharge 006 as specified in Table 6. The permittee must comply with the effluent limits in Table 6 at all times unless otherwise indicated, regardless of the frequency of monitoring or reporting required by other provisions of this general permit.

2. The permittee must process all bilge water through an oil-water separator prior to discharge.

TABLE 6: Effluent Limitations and Monitoring Requirements for Bilge Water (Discharge 006)

Effluent Parameter	Units	Effluent Limitations		Monitoring Requirements	
		Average Monthly Limit	Maximum Daily Limit	Sample Frequency	Sample Type
Free Oil	---	No discharge [Note 1]		Once per discharge event and Daily	Grab & Visual
pH	s.u.	Report		Monthly	Grab
Total Volume	gal	Report		Monthly	Estimated
Toxicity Testing [Note 2]	TU_C	Report		Section II.A.13.	Grab

FOOTNOTE:

1 Once per discharge event, the permittee must sample bilge water discharges that are processed through an oil-water separator and test for sheen using the static sheen test in accordance with Appendix 1 to Subpart A of 40 CFR Part 435. On a daily basis during discharge, the permittee must also conduct a visual observation for visual sheen as determined by the presence of a film or sheen upon or a discoloration of the surface of the receiving water. The permittee must monitor by observing the surface of the receiving water in the vicinity of the outfall(s) during daylight at the time of maximum estimated discharge and during conditions when observations on the surface of the receiving water are possible in the vicinity of the discharge. The observations and time of day must be recorded. The number of days sheen is observed must be recorded and reported in the DMR.

2 Toxicity testing is required if chemicals are added to the system. Refer to Section II.A.13 of this general permit.

G. REQUIREMENTS FOR BOILER BLOWDOWN (DISCHARGE 007)

1. If authorized, the permittee may discharge boiler blowdown subject to the effluent limitations and requirements herein. The permittee must limit and monitor Discharge 007 as specified in Table 7. The permittee must comply with the effluent limits in Table 7 at all times unless otherwise indicated, regardless of the frequency of monitoring or reporting required by other provisions of this general permit.

TABLE 7: Effluent Limitations and Monitoring Requirements for Boiler Blowdown (Discharge 007)

Effluent Parameter	Units	Effluent Limitations		Monitoring Requirements	
		Average Monthly Limit	Maximum Daily Limit	Sample Frequency	Sample Type
Free Oil	---	No discharge [Note 1]		Once/discharge	Visual/Grab
pH	s.u.	Report		Monthly	Grab
Total Volume	gal	Report		Monthly	Estimated
Toxicity Testing [Note 2]	TU_C	Report		Section II.A.13.	Grab

FOOTNOTE:

1 Once per discharge event, the permittee must conduct a visual observation for visual sheen as determined by the presence of a film or sheen upon or a discoloration of the surface of the receiving water. The permittee must monitor by observing the surface of the receiving water in the vicinity of the outfall(s) during daylight at the time of maximum estimated discharge and during conditions when observations on the surface of the receiving water are possible in the vicinity of the discharge. The observations and time of day must be recorded. The number of days sheen is observed must be recorded and reported in the DMR. If visual observations of the discharge are not possible, the permittee must sample (grab sample) the boiler blowdown discharge and test for sheen using the static sheen test in accordance with Appendix 1 to Subpart A of 40 CFR Part 435.

2 Toxicity testing is required if chemicals are added to the system. Refer to Section II.A.13 of this general permit.

H. REQUIREMENTS FOR FIRE CONTROL SYSTEM TEST WATER (DISCHARGE 008)

1. If authorized, the permittee may discharge fire control system test water subject to the effluent limitations and requirements herein. The permittee must limit and monitor Discharge 008 as specified in Table 8. The permittee must comply with the effluent limits in Table 8 at all times unless otherwise indicated, regardless of the frequency of monitoring or reporting required by other provisions of this general permit.

TABLE 8: Effluent Limitations and Monitoring Requirements for Fire Control System Test Water (Discharge 008)

Effluent Parameter	Units	Effluent Limitations		Monitoring Requirements	
		Average Monthly Limit	Maximum Daily Limit	Sample Frequency	Sample Type
Free Oil	---	No discharge [Note 1]		Once/discharge	Visual/Grab
pH	s.u.	Report		Monthly	Grab
Total Volume	gal	Report		Monthly	Estimated
Toxicity Testing [Note 2]	TU_C	Report		Section II.A.13.	Grab

FOOTNOTE:

1 Once per discharge event, the permittee must conduct a visual observation for visual sheen as determined by the presence of a film or sheen upon or a discoloration of the surface of the receiving water. The permittee must monitor by observing the surface of the receiving water in the vicinity of the outfall(s) during daylight at the time of maximum estimated discharge and during conditions when observations on the surface of the receiving water are possible in the vicinity of the discharge. The observations and time of day must be recorded. The number of days sheen is observed must be recorded and reported in the DMR. If visual observations of the discharge are not possible, the permittee must sample (grab sample) the fire control system test discharge and test for sheen using the static sheen test in accordance with Appendix 1 to Subpart A of 40 CFR Part 435.

2 Toxicity testing is required if chemicals are added to the system. Refer to Section II.A.13 of this general permit.

I. REQUIREMENTS FOR NON-CONTACT COOLING WATER (DISCHARGE 009)

1. If authorized, the permittee may discharge non-contact cooling water subject to the effluent limitations and requirements herein. The permittee must limit and monitor Discharge 009 as specified in Table 9. The permittee must comply with the effluent limits in Table 9 at all times unless otherwise indicated, regardless of the frequency of monitoring or reporting required by other provisions of this general permit.

2. Marine Mammal Observations. The permittee must observe for potential marine mammal deflection during periods of non-contact cooling water discharge (Discharge 009). Observations of potential marine mammal deflection must be reported in the following month's DMR.

TABLE 9: Effluent Limitations and Monitoring Requirements for Non-Contact Cooling Water (Discharge 009)

Effluent Parameter	Units	Effluent Limitations		Monitoring Requirements	
		Average Monthly Limit	Maximum Daily Limit	Sample Frequency	Sample Type
Free Oil	---	No discharge [Note 1]		Daily	Visual
pH [note 2]	s.u.	Report		Monthly	Grab
pH [note 3]	s.u.	6.5 – 8.5		Monthly	Grab
Total Volume	gal	Report		Daily [Note 4]	Estimated
Temperature	°F	Report		Continuous [Note 4]	Measure
Toxicity Testing [Note 5]	TU_C	Report		Section II.A.13.	Grab

FOOTNOTES:

1 Once per day per discharge outfall, the permittee must conduct a visual observation for visual sheen as determined by the presence of a film or sheen upon or a discoloration of the surface of the receiving water. The permittee must monitor by observing the surface of the receiving water in the vicinity of the outfall(s) during daylight at the time of maximum estimated discharge and during conditions when observations on the surface of the receiving water are possible in the vicinity of the discharge. The observations and time of day must be recorded. The number of days sheen is observed must be recorded and reported in the DMR.

2 pH monitoring and reporting is required if no chemicals are added to the system.

3 The pH limit applies to the discharge if chemicals are added to the system.

4 Estimated daily discharge volume and maximum and minimum recorded daily temperature must be reported for each outfall.

5 Toxicity testing is required if chemicals are added to the system. Refer to Section II.A.13 of this general permit.

J. REQUIREMENTS FOR UNCONTAMINATED BALLAST WATER (DISCHARGE 010)

1. If authorized, the permittee may discharge uncontaminated ballast water subject to the effluent limitations and requirements herein. The permittee must limit and monitor Discharge 010 as specified in Table 10. The permittee must comply with the effluent limits in Table 10 at all times unless otherwise indicated, regardless of the frequency of monitoring or reporting required by other provisions of this general permit.

2. The permittee must process all ballast water contaminated with oil and grease through an oil-water separator.

TABLE 10: Effluent Limitations and Monitoring Requirements for Uncontaminated Ballast Water (Discharge 010)

Effluent Parameter	Units	Effluent Limitations		Monitoring Requirements	
		Average Monthly Limit	Maximum Daily Limit	Sample Frequency	Sample Type
Free Oil	---	No discharge [Note 1]		Once/discharge	Visual/Grab
pH	s.u.	Report		Monthly	Grab
Total Volume	gal	Report		Monthly	Estimated

FOOTNOTE:

1 Once per discharge event, the permittee must conduct a visual observation for visual sheen as determined by the presence of a film or sheen upon or a discoloration of the surface of the receiving water. The permittee must monitor by observing the surface of the receiving water in the vicinity of the outfall(s) during daylight at the time of maximum estimated discharge and during conditions when observations on the surface of the receiving water is possible in the vicinity of the discharge. The observations and time of day must be recorded. The number of days sheen is observed must be recorded and reported in the DMR. If visual observations of the discharge are not possible, the permittee must sample (grab sample) the ballast water discharge and test for sheen using the static sheen test in accordance with Appendix 1 to Subpart A of 40 CFR Part 435.

K. REQUIREMENTS FOR DRILL CUTTINGS NOT ASSOCIATED WITH DRILLING FLUIDS (DISCHARGE 011)

1. If authorized, the permittee may discharge drill cuttings not associated with drilling fluids subject to the effluent limitations and requirements herein. The permittee must limit and monitor Discharge 011 as specified in Table 11. The permittee must comply with the effluent limits in Table 11 at all times unless otherwise indicated, regardless of the frequency of monitoring or reporting required by other provisions of this general permit.

TABLE 11: Effluent Limitations and Monitoring Requirements for Drill Cuttings not Associated with Drilling Fluids (Discharge 011)

Effluent Parameter	Units	Effluent Limitations		Monitoring Requirements	
		Average Monthly Limit	Maximum Daily Limit	Sample Frequency	Sample Type
Free Oil	---	No discharge [Note 1]		Once/discharge	Visual
Total Volume	gal	Report		Monthly	Estimated

FOOTNOTE:

1 Once per discharge event, the permittee must conduct a visual observation for visual sheen as determined by the presence of a film or sheen upon or a discoloration of the surface of the receiving water. The permittee must monitor by observing the surface of the receiving water in the vicinity of the outfall(s) during daylight at the time of maximum estimated discharge and during conditions when observations on the surface of the receiving water are possible in the vicinity of the discharge. For geotechnical activities conducted during the winter months, monitoring for the presence of a sheen must be conducted during the removal of the sampling/drilling equipment. The observations and time of day must be recorded. The number of days sheen is observed must be recorded and reported in the DMR.

L. REQUIREMENTS FOR CEMENT SLURRY (DISCHARGE 012)

1. If authorized, the permittee may discharge a cement slurry. This discharge is subject to the effluent limitations and requirements herein. The permittee must limit and monitor Discharge 012 as specified in Table 12. The permittee must comply with the effluent limits in Table 12 at all times unless otherwise indicated, regardless of the frequency of monitoring or reporting required by other provisions of this general permit.

TABLE 12: Effluent Limitations and Monitoring Requirements for Cement Slurry (Discharge 012)

Effluent Parameter	Units	Effluent Limitations		Monitoring Requirements	
		Average Monthly Limit	Maximum Daily Limit	Sample Frequency	Sample Type
Free Oil	---	No discharge [Note 1]		Daily	Visual
Total Volume	gal	Report		Monthly	Estimated

FOOTNOTE:

1 During discharge, the permittee must conduct a visual observation for visual sheen as determined by the presence of a film or sheen upon or a discoloration of the surface of the receiving water. The permittee must monitor by observing the surface of the receiving water in the vicinity of the outfall(s) during daylight at the time of maximum estimated discharge and during conditions when observations on the surface of the receiving water are possible in the vicinity of the discharge. The observations and time of day must be recorded. The number of days sheen is observed must be recorded and reported in the DMR.

III. MONITORING, RECORDING AND REPORTING REQUIREMENTS

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

1. The permittee must ensure that samples and measurements taken for the purpose of monitoring are representative of the monitored activity.

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

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

B. REPORTING OF MONITORING RESULTS

The permittee must summarize monitoring results each month on the Discharge Monitoring Report (DMR) form (EPA No. 3320-1, or equivalent). The permittee must sign and certify all DMRs, and all other reports, in accordance with the requirements of Part VI.E. of this general permit ("Signatory Requirements"). The permittee must submit monitoring data and other reports electronically using NetDMR.

DMRs must be submitted to EPA no later than the 20th of the month following the completed reporting period. Inquiries regarding the NetDMR process may be made to EPA at the following address:

Office of Compliance and Enforcement
U. S. Environmental Protection Agency, Region 10
ATTN: ICIS Data Entry Team
1200 Sixth Avenue, Suite 900, **OCE-133**
Seattle, Washington 98101
NPDES Compliance Hotline: (206) 553-1846

NetDMR is accessed from http://www.epa.gov/netdmr.

C. **MONITORING PROCEDURES.** The permittee must conduct monitoring according to test procedures approved under 40 CFR Part 136, unless other test procedures have been specified in this general permit.

D. **ADDITIONAL MONITORING BY PERMITTEE**

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

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

E. **RECORDS CONTENTS.** The permittee must ensure that records of monitoring information include:

1. the date, exact place, and time of sampling or measurements;

2. the name(s) of the individual(s) who performed the sampling or measurements;

3. the date(s) analyses were performed;

4. the names of the individual(s) who performed the analyses;

5. the analytical techniques or methods used; and

6. the results of such analyses.

F. **RETENTION OF RECORDS.** The permittee must retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this general permit, copies of DMRs; a copy of this NPDES general permit and associated authorizations, and records of all data used to complete the application for this general 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 the Director at any time.

G. **NONCOMPLIANCE REPORTING**

1. Twenty-four Hour Notice of Noncompliance Reporting

a. The permittee must report to the Director any unauthorized discharges by telephone within 24 hours from the time the permittee becomes aware of the discharge.

b. The permittee must report to the Director the following occurrences of noncompliance by telephone within 24 hours from the time the permittee becomes aware of the following circumstances:

1. any noncompliance that may endanger human health or the environment;

2. any unanticipated bypass that exceeds any effluent limitation in the general permit (See Section V.F, "Bypass of Treatment Facilities");

3. any upset that exceeds any effluent limitation in the general permit (See Section V.G, "Upset Conditions"); or

4. any violation of a maximum daily discharge limitation for any of the pollutants in Section II of the general permit requiring 24-hour reporting.

c. The permittee must also provide a written submission to the Director within five days of the time that the permittee becomes aware of any event required to be reported under Sections III.G.1.a. and III.G.1.b. For events required to be reported under Section III.G.1, the written submission must contain:

1. a description of the noncompliance and its cause;

2. the period of noncompliance, including exact dates and times;

3. the estimated time noncompliance is expected to continue if it has not been corrected; and

4. steps taken or planned to reduce, eliminate, and prevent recurrence of the noncompliance.

d. The Director of the Office of Compliance and Enforcement may waive the written report required for Section III.G.1.c. 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.

e. The permittee must submit reports to the addresses in Section III.B ("Reporting of Monitoring Results").

f. The permittee must include the North Slope Borough in the notification requirements pursuant to Sections III.G.1.a.-c.

2. 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 Section III.B. ("Reporting of Monitoring Results") are submitted. The reports must contain the information listed in Section III.G.1. ("Twenty-four Hour Notice of Noncompliance Reporting") of this general permit.

H. **CHANGES IN DISCHARGE OF TOXIC SUBSTANCES.** The permittee must notify the Director as soon as he/she 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 general 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 the Director in accordance with 40 CFR §122.44(f).

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 general permit, if that discharge may reasonably be expected to exceed the highest of the following "notification level":

a. Five hundred micrograms per liter (500 µg/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).

2. The permittee must submit the notification to the Office of Water and Watersheds at the following address:

U.S. EPA Region 10
Attn: NPDES Permits Unit Manager
1200 Sixth Avenue
Suite 900, OWW-130
Seattle, Washington 98101-3140

I. COMPLIANCE SCHEDULES. Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of this general permit must be submitted no later than 14 days following each schedule date.

IV. SPECIAL CONDITIONS

A. QUALITY ASSURANCE PROJECT PLAN (QAPP) REQUIREMENTS

1. The permittee must develop, implement, and submit a QAPP for all monitoring required by this general permit. The QAPP must be submitted with the first-time NOI if requesting authorization to discharge Drilling Fluids and Drill Cuttings (Discharge 001).

For those operators who intend to only use seawater (without additives) to conduct geotechnical surveys and related activities, or those that intend to conduct on-ice activities and discharge only a single waste stream, such as drill cuttings not associated with drilling fluids (Discharge 011), the QAPP Plan does not need to be included with the NOI package. The QAPP Plan must be completed prior to commencing activities and retained onsite (Permit Part IV.A.6.).

2. The QAPP must address the monitoring activities required by this general permit. The QAPP must be designed to assist in planning for the collection and analysis of data required in the Environmental Monitoring Program (Section II.A.13.), effluent and receiving water samples and measurements in support of the general permit and in explaining data anomalies when they occur.

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 QAPP must be prepared in the format which is specified in these documents. At a minimum, the following information must be included in the QAPP:

a. Sample locations (map and physical description, which includes station identification number, latitude, and longitude);

b. Sample frequency;

c. Sample handling, storage, transport, and Chain-of-Custody procedures;

d. Parameters, preparation and analysis methods, detection limits, and volume of sample required for each analyte in each medium (i.e., water or sediment);

e. Number of QC samples, spikes and replicates required for analysis (for precision accuracy);

f. Documentation requirements for the laboratory (i.e., retention or holding time, QA/QC procedures for test methods, volume of sample collected, field test blanks, etc.);

g. Organizational responsibilities - who is responsible for QA/QC activities (i.e., who takes samples, who reviews the data analysis, etc.); and

h. Name(s), address(es), and phone number(s) of laboratories used or proposed to be used by the permittee.

3. The permittee is responsible for reviewing and updating the QAPP to ensure all material is current and applicable.

4. The permittee must amend the QAPP whenever there is a modification in the sample collection, sample analysis, or other procedures addressed by the QAPP or a change in the guidance cited above.

5. The permittee must submit a letter to the Director with the annual NOI renewal package certifying that the QAPP has been reviewed and revised, if needed (Sections IV.A.3. and IV.A.4.)

6. The permittee must keep copies of the most current QAPP on board the Geotechnical Facility.

B. BEST MANAGEMENT PRACTICES PLAN REQUIREMENTS

1. The permittee must develop and implement a BMP Plan, which achieves the objectives and specific requirements listed below. The permittee must operate the Geotechnical Facility in accordance with its current BMP Plan or in accordance with subsequent amendments to the BMP Plan. The permittee must ensure that the BMP Plan incorporates practices to achieve the objectives and specific requirements listed below. The BMP Plan must be submitted with the first-time NOI if requesting authorization to discharge Drilling Fluids and Drill Cuttings (Discharge 001). For annual NOI renewals, the permittee must submit a letter certifying that the existing BMP has been reviewed and revised, if needed. If revisions are made to the Plan, then the certification letter must include an enclosure identifying all of the changes.

For those operators who intend to only use seawater (without additives) to conduct geotechnical surveys and related activities, or those that intend to conduct on-ice activities and discharge only a single waste stream, such as drill cuttings not associated with drilling fluids (Discharge 011), the BMP

Plan does not need to be included with the NOI package. The BMP Plan must be completed prior to commencing activities and kept onsite (Permit Part IV.B.6.).

2. The permittee must certify and notify the Director in writing that the BMP Plan is on-site at least 7 calendar days prior to any authorized discharge under this general permit. The certification must identify the NPDES permit number and be signed in accordance with the Signatory Requirements of Section VI.E.

3. Through implementation of the BMP Plan, the permittee must:

a. Prevent or minimize the generation and the potential for the release of pollutants from the Geotechnical Facility to the waters of the United States through normal operations and ancillary activities; and

b. Ensure that methods of pollution prevention, control, and treatment will be applied to all wastes and other substances discharged.

4. The permittee must develop and amend the BMP Plan consistent with the following objectives for the control of pollutants.

a. The number and quantity of pollutants and the toxicity of effluent generated, discharged or potentially discharged at the Geotechnical Facility must be minimized by the permittee to the extent feasible by managing each waste stream in the most appropriate manner.

b. Under the BMP Plan, and any Standard Operating Procedures included in the BMP Plan, the permittee must ensure proper operation and maintenance of the Geotechnical Facility.

c. The permittee must establish specific objectives for the control of pollutants by conducting the following evaluations.

1. Each facility component or system must be examined for its waste minimization opportunities and its potential for causing a release of significant amounts of pollutants to waters of the United States due to equipment failure, improper operation, and natural phenomena such as rain or snowfall, etc. The examination must include all normal operations and ancillary activities including loading or unloading operations or spillage or leaks.

2. Where experience indicates a reasonable potential for equipment failure, natural condition (e.g., precipitation), or other circumstances to result in significant amounts of pollutants reaching surface waters, the Plan should include a prediction of the direction, rate of flow and total quantity of pollutants which could be discharged from the facility as a result of each condition or circumstance.

5. The BMP Plan must be consistent with the objectives listed above and the general guidance contained in the publication entitled *Guidance Manual for Developing Best Management Practices (BMPs)* (USEPA, EPA 833-B-93-004, 1993) or any subsequent revisions to the guidance document. The BMP Plan must:

a. Be written in narrative form and must include any necessary plot plans, drawings or maps, and must be developed in accordance with good engineering practices. The BMP Plan must be organized and written with the following structure:

1. Name and location of the facility.

2. Statement of BMP policy.

3. Structure, functions, and procedures of the BMP Committee, which is responsible for developing, implementing and maintaining the BMP Plan.

4. Specific management practices and standard operating procedures to achieve the above objectives, including, but not limited to, the following:

i. modification of equipment, facilities, technology, processes, and procedures,

ii. reformulation or redesign of products,

iii. substitution of materials, and

iv. improvement in management, inventory control, materials handling or general operational phases of the facility.

5. Risk identification and assessment.

6. Reporting of BMP incidents. The written reports must include a description of the circumstances leading to the incident, corrective actions taken and recommended changes to operating and maintenance practices and procedures to prevent recurrence.

7. Materials compatibility.

8. Good housekeeping.

9. Preventative maintenance.

10. Inspections and records.

11. Security.

12. Employee training.

b. Include the following provisions concerning BMP Plan review:

1. Annual review by geotechnical engineering staff and the geotechnical field survey program manager.

2. Annual review and endorsement by the permittee's BMP Committee.

3. Include a statement that the above annual reviews have been completed and that the BMP Plan fulfills the requirements set forth in this general permit. The statement must include the dated signatures of each BMP Committee member as certification of the annual reviews.

4. The permittee must submit a copy of the annual certification statement and a report of all changes in the BMP Plan to the Director with the December DMR or the annual NOI renewal package.

c. Establish specific best management practices to meet the objectives identified above, addressing each component or system capable of generating or causing a release of significant amounts of pollutants, and identifying specific preventative or remedial measures to be implemented.

d. Establish specific best management practices or other measures which ensure that the following specific requirements are met:

1. Ensure proper management of solid and hazardous waste in accordance with the regulations promulgated under the Resource Conservation and Recovery Act (RCRA). Management practices required under RCRA regulations must be referenced in the BMP Plan.

2. Reflect requirements for oil spill response plans under 30 CFR Part 254 and 33 CFR Part 154. The BMP may incorporate any part of such plans by reference.

3. Reflect requirements for storm water control under Section 402(p) of the Act and the regulations at 40 CFR 122.26 and 122.44, and otherwise eliminate to the extent practicable, contamination of storm water runoff.

4. Reflect requirements for air emissions under applicable state and federal air quality regulations and permits.

5. Identify chemical additive inventory procedures (i.e., implementation procedures, calculation methods, record-keeping and reporting procedures) to ensure compliance with the Section II.A.12. of this general permit.

6. Select and implement cooling water intake structure design and construction technologies or operational measures for minimizing impingement mortality and entrainment of fish and shellfish.

7. Ensure that intake/exchange activities minimize the risk of introducing non-indigenous/invasive species to the Beaufort and Chukchi Seas.

e. Include the following minimum set of BMPs:

1. Ensure that solids, sludges, or other pollutants removed in the course of treatment or control of water and wastewaters are disposed of in a manner such as to prevent any pollutant from such materials from entering navigable waters.

2. Separate used motor oil from deck drainage collection systems.

3. Minimize wastewater treatment system upsets (e.g., controlled usage of deck drainage washdown detergents and of ice prevention materials to ensure worker safety on decks and work areas).

4. Reduce oil spillage and oil leaks from pump bearings and seals through the use of good prevention techniques such as drip pans and other handling and collection methods.

5. When possible, substitute standard drilling fluid additives with less toxic additives.

6. Careful handling of drilling fluid materials and treatment chemicals to prevent spills.

7. Use of local containment devices such as liners, dikes and drip pans where chemicals are being unpackaged and where wastes are being stored and transferred.

8. Install treatment devices for deck drainage to reduce or remove pollutants in the discharges (e.g., skim tanks, oil/water separators, sediment tanks/basins, or detention ponds).

9. Maintain proper cathodic protection to prevent the corrosion of the ship's hull.

6. The permittee must maintain a copy of the BMP Plan onboard the Geotechnical Facility.

7. The permittee must amend the BMP Plan whenever there is a change in the Geotechnical Facility or in the geotechnical surveys and/or related activities that materially increases the generation of pollutants or their release or potential release to the receiving waters. The permittee must also amend the BMP Plan, as appropriate, when facility operations covered by the BMP Plan change. Any such changes to the BMP Plan must be consistent with the

objectives and specific requirements listed above. Any changes to the BMP Plan must be reported to the Director in writing.

8. All changes in the BMP Plan must be reviewed by the geotechnical engineering staff, geotechnical activities program manager and the BMP Committee. The amended BMP Plan must include a certified statement that the above reviews have been completed and that the BMP Plan fulfills the requirements set forth in this general permit. The certified statement must include the dated signatures of each BMP Committee member as certification of the reviews of the amended BMP Plan. All changes in the BMP Plan must be reported to the Director in writing with the annual certification required under Paragraph B.5.b. above. The permittee must submit a copy of the certified statement and a report of all changes in the BMP Plan to the Director with the December DMR or the annual NOI renewal package.

C. DRILLING FLUID PLAN REQUIREMENTS

1. The permittee must develop and implement a written procedural plan for the formulation and control of drilling fluid/chemical additive systems for each drilling fluid formulation used onboard the facility. The drilling fluid plan must specify the drilling fluid/chemical additive systems to be used, and to be discharged (e.g., Discharges 001). The plan must be implemented during drilling operations and a copy of the plan must be available onboard the Geotechnical Facility at all times.

2. The permittee must submit a copy of the completed drilling fluid plan to the Director with the first-time NOI if requesting authorization to discharge Drilling Fluids and Drill Cuttings (Discharge 001). For annual NOI renewals, the permittee must submit to the Director a letter certifying that the drilling fluid plan submitted with the first-time NOI has been reviewed and revised, if needed. If revisions are made to the original drilling fluids plan, the certification letter must include an enclosure identifying all changes made to the plan.

3. At a minimum, the drilling fluid plan must include the following information:

a. Types of drilling fluids proposed for use or discharge throughout the geotechnical surveys and/or related activities conducted during a calendar year.

b. Specific to each drilling fluid type, provide a list, including commercial product names, descriptions of the products, and the maximum proposed discharge concentrations for each product and chemical additive. Concentrations must be commonly stated in appropriate terms (e.g., lb/bbl, gal/bbl, % (wt), or % v/v (% volume oil per volume drilling

fluid). Each drilling fluid or additive system must be clearly labeled with respect to drilling fluid type (e.g., KCl/polymer drilling fluid, freshwater lignosulfonate drilling fluid). Components of the basic drilling fluid must be listed separately from specialty or contingency chemical additives which may be used.

c. A record of the operator's determination of how discharge of drilling fluids and drill cuttings is expected to comply with the 30,000 ppm SPP toxicity limitation. Operator's determination must be based upon, but not limited to, the following criteria:

1. Estimate of worst-case cumulative discharge toxicity based on additive toxicity estimations or commercially calculated discharge toxicity estimations;

2. Description of how overall toxicity is minimized, where possible.

d. A clearly stated procedure for determining whether or not a chemical additive not originally planned for or included in toxicity estimations may be used and discharged.

e. An outline of the drilling fluid planning process which must be consistent with other general permit requirements. Names and titles of personnel responsible for the drilling fluid planning process must be included in the drilling fluid plan.

D. 40 CFR PART 125.123(D)(4) REQUIREMENTS

In addition to any other grounds specified herein, coverage under this general permit shall be modified or revoked at any time if, on the basis of any new data, the Director determines that continued discharges may cause unreasonable degradation of the marine environment.

V. COMPLIANCE RESPONSIBILITIES

A. DUTY TO COMPLY. The permittee must comply with all conditions of this general permit. Any general permit noncompliance constitutes a violation of the Act and is grounds for enforcement action; for general permit termination, revocation and reissuance, or modification; or for denial of a general permit renewal application. The permittee must give written notice to the Director of any planned changes in the permitted geotechnical survey activities which may result in noncompliance with general permit requirements.

B. PENALTIES FOR VIOLATIONS OF PERMIT CONDITIONS

1. Civil 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 the Act, or any permit condition or limitation implementing any of such Sections in a permit issued under Section 402 of the Act. Pursuant to 40 CFR 19 and the Act, administrative penalties for Class I violations are not to exceed the maximum amounts authorized by Section 309(g)(2)(A) of the Act and the Federal Civil Penalties Inflation Adjustment Act (28 U.S.C. § 2461 note) as amended by the Debt Collection Improvement Act (31 U.S.C. § 3701 note) [currently $16,000 per violation, with the maximum amount of any Class I penalty assessed not to exceed $37,500]. Pursuant to 40 CFR 19 and the Act, penalties for Class II violations are not to exceed the maximum amounts authorized by Section 309(g)(2)(B) of the Act and the Federal Civil Penalties Inflation Adjustment Act (28 U.S.C. § 2461 note) as amended by the Debt Collection Improvement Act (31 U.S.C. § 3701 note) [currently $16,000 per day for each day during which the violation continues, with the maximum amount of any Class II penalty not to exceed $177,500].

3. Criminal Penalties

a. Negligent Violations. The Act provides that any person who negligently violates Section 301, 302, 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, 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 one year, or both. In the case of a second or subsequent conviction for a negligent violation, a person must be subject to criminal penalties of not more than $50,000 per day of violation, or by imprisonment of not more than two years, or both.

b. Negligent Knowing Violations. Any person who knowingly violates such sections, or such permit conditions or limitations is subject to criminal penalties of $5,000 to $50,000 per day of violation, or imprisonment for not more than three years, or both. In the case of a second or subsequent conviction for a knowing violation, a person must be subject to criminal penalties of not more than $100,000 per day of violation, or imprisonment of not more than six 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, must, 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 must 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, must, 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 a 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 must, upon conviction, be punished by a fine of not more than $10,000, or by imprisonment for not more than two 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 four 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 general permit, including monitoring reports or reports of compliance or non-compliance must, upon conviction, be punished by a fine of not

more than $10,000 per violation, or by imprisonment for not more than six months per violation, or by both.

C. **NEED TO HALT OR REDUCE ACTIVITY NOT A DEFENSE.** It must 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 general permit.

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

E. **PROPER OPERATION AND MAINTENANCE.** The permittee must at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the permittee to achieve compliance with the conditions of this general 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 general 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 F.2. and F.3. of this Section.

2. **Notice**

a. **Anticipated bypass.** If the permittee knows in advance of the need for a bypass, it must submit prior notice, if possible at least 10 days before the date of the bypass.

b. **Unanticipated bypass.** The permittee must submit notice of an unanticipated bypass as required under Section III.G. ("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:

1. The bypass was unavoidable to prevent loss of life, personal injury, or severe property damage;

2. There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or

maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate 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 preventative maintenance; and

3. The permittee submitted notices as required under paragraph F.2. of this Section.

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 F.3.a. of this Section.

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 G.2. of this Section. No determination made during administrative review of claims that noncompliance was caused by upset, and before an action for noncompliance, is final administrative action subject to judicial review.

2. Conditions necessary for a demonstration of upset. To establish the affirmative defense of upset, the permittee must demonstrate, through properly signed, contemporaneous operating logs, or other relevant evidence that:

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

b. The permitted facility was at the time being properly operated;

c. The permittee submitted notice of the upset as required under Section III.G. ("Noncompliance Reporting"); and

d. The permittee complied with any remedial measures required under Section V.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 general permit has not yet been modified to incorporate the requirement.

I. PLANNED CHANGES. The permittee must give notice to the Director of the Office of Compliance and Enforcement at the address in Section III.B. as soon as possible of any planned physical alterations or additions to the permitted facility whenever:

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

2. The alteration or addition could significantly change the nature or increase the quantity of pollutants discharged. This notification applies to pollutants that are subject neither to effluent limitations in the general permit, nor to notification requirements under Section III.H. ("Changes in Discharge of Toxic Substances").

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

K. TRANSFERS. This permit is not transferable to any person except after notice to the Director. The Director may require modification or revocation and reissuance of the general permit to change the name of the permittee and incorporate such other requirements as may be necessary under the Clean Water Act. (See 40 CFR § 122.61; in some cases, modification or revocation and reissuance is mandatory). Notice to the Director should be sent to the address in Section I.F.1. of this general permit.

VI. GENERAL PROVISIONS

A. PERMIT ACTIONS. This general 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 general permit modification, revocation and reissuance, termination, or a notification of planned changes or anticipated noncompliance, does not stay any general permit condition.

B. DUTY TO REAPPLY

1. If the permittee intends to continue an activity regulated by this general permit after the expiration date of this general permit, the permittee must either apply for and obtain an individual permit or submit an NOI to be covered under a new general 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 an application for an individual permit or submit a new NOI at least 180 days before the expiration date of this general permit.

2. If this general permit is not reissued or replaced prior to the expiration date, it will be administratively continued in accordance with section 558(c) of the Administrative Procedure Act (5 U.S.C. 558(c)) and EPA's implementing regulations at 40 CFR 122.6 and remain in force and effect for discharges that were authorized prior to general permit expiration. Permittees granted

general permit coverage prior to the expiration date will automatically remain covered by this general permit until the earliest of:

a. authorization for coverage under a reissuance or replacement of this general permit, following timely and appropriate submittal of a complete NOI requesting authorization to discharge under the new general permit and compliance with the requirements of the new general permit; or

b. submittal of a Notice of Termination; or

c. issuance of a new general permit that authorizes discharges from facilities conducting geotechnical surveys and/or related activities and provides general permit coverage without requiring re-submittal of a Notice of Intent to obtain coverage; or

d. issuance or denial of an individual permit for the facility's discharges; or

e. a formal permit decision by EPA not to reissue this general permit, at which time EPA will identify a reasonable time period for covered dischargers to seek coverage under an alternative general permit or an individual permit. Coverage under this permit will cease at the end of this time period.

C. **DUTY TO PROVIDE INFORMATION.** The permittee must furnish to the Director, within any reasonable time specified in the request, any information that the Director may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this general permit, or to determine compliance with this general permit. The permittee must also furnish to the Director, upon request, copies of records required to be kept by this general 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 in any report to the Director, it must promptly submit such facts or information.

E. **SIGNATORY REQUIREMENTS.** All applications, reports or information submitted to the Director 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 general permit and other information requested by the Director 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 Geotechnical Facility or geotechnical activity, such as the position of geotechnical program manager, 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.

3. **Changes to authorization.** If an authorization under Section VI.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 Section VI.E.2. must be submitted to the Director of the Office of Compliance and Enforcement prior to or together with any reports, information, or applications to be signed by an authorized representative.

4. **Certification.** Any person signing a document under this Section must make the following certification:

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly 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 Part 2, information submitted to the Director pursuant to this general 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, the Director 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 Part 2, Subpart B (Public Information) and 41 Fed. Reg. 36924 (September 1, 1976), as

amended.

G. **INSPECTION AND ENTRY.** The permittee must allow the Director of the Office of Compliance and Enforcement 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 general permit;

2. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this general permit;

3. Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this general 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 general 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. **STATE LAWS.** Nothing in this general 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.

J. **OIL AND HAZARDOUS SUBSTANCE LIABILITY.** Nothing in this general permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities, or penalties to which the permittee is or may be subject under Section 311 or the Act or Section 106 of the Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA).

K. **SEVERABILITY.** The provisions of this general permit are severable, and if any provision of this general permit, or the application of any provision of this general permit to any circumstance, is held invalid, the application of any such provision to the circumstances, and the remainder of this general permit must not be affected thereby.

VII. DEFINITIONS

Act means the Clean Water Act.

Administrator means the Administrator of the EPA, or an authorized representative.

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.

Ballast water means harbor or seawater added or removed to maintain the proper ballast floater level and ship draft and to conduct jack-up rig related sea bed support capability tests (e.g. jack-up rig preload water).

Barite is a dense sulfate ($BaSO_4$) mineral that can occur in a variety of rocks, include limestone and sandstone, with a range of minerals, such as quartz, chert, dolomite, calcite, siderite and metal sulfides (i.e. cadmium sulfide and mercury sulfide). Barite is commonly used to as a weighting agent for all types of drilling fluids. Contaminants in barite, such as cement, siderite, pyrrhotite, gypsum and anhydrite, can cause problems in certain mud systems. Barite is known to contain numerous metal constituents, such as cadmium, mercury, copper, lead, chromium, nickel, arsenic and zinc.

bbl means barrel.

Bentonite is a material of clay minerals, predominantly montmorillonite with minor amounts of other smectite group minerals, commonly used as a drilling fluid additive for viscosity and filtration control. Bentonite swells considerably when exposed to water, making it ideal for protecting formations from invasion by drilling fluids. Montmorillonite forms when basic rocks such as volcanic ash in marine basins are altered.

Best Management Practices (BMPs) means schedules of activities, prohibitions or 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.

Bilge water means water which collects in the lower internal parts of the facility's hull.

Biocide means any chemical agent used for controlling the growth of or destroying nuisance organisms (e.g., bacteria, algae, and fungi).

BOD means biochemical oxygen demand. This is a measurement of the amount of oxygen utilized by the decomposition of organic material, over a specified time period (usually 5 days, designated

BOD_5), in a wastewater sample; it is used as a measurement of the readily decomposable organic content of a wastewater.

Boiler blowdown means the discharge of water and minerals drained from boiler drums to minimize solids build-up in the boiler.

Borehole means a 4 – 12 inch diameter, hole drilled to assess the subsurface characteristics of the seafloor. Boreholes may be shallow (depth ≤ 50 feet) or deep (depths > 50 feet and ≤ 499 feet) (*See also "Boring"*).

Boring means the act or process of making a hole in subsurface sediments and obtaining representative data (physical core samples and/or electronic CPT soundings) for the sediments.

Boring sample means the undisturbed cylindrical portion of the subsurface geological formations (sediment and rock layers) that is recovered to the deck of the facility for analysis. *See "Core Sample"*

Bureau of Ocean Energy Management (BOEM) is part of the U.S. Department of the Interior and is responsible for the management of offshore conventional and renewable energy resources (formerly the Bureau of Ocean Energy Management, Regulation and Enforcement; BOMRE).

Bypass means the intentional diversion of waste streams from any portion of a treatment facility.

Cessation or *to cease* means to completely stop or discontinue an activity.

Cement slurry is the cement-bentonite mixture that may be used to plug a geotechnical borehole.

CFR means Code of Federal Regulations.

Chronic toxic unit (TU_c) is a measure of chronic toxicity.

Cone Penetration Test (CPT) is an in situ method used to determine the geotechnical engineering properties of sediments and soils, and delineating subsurface stratigraphy (rock layers). (See also "Electronic Cone Penetrometer").

Core sample means the undisturbed cylindrical portion of the subsurface geological formations (sediment and rock layers) that is recovered from the borehole for laboratory analysis. (*See also "Boring Sample")*

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.

Deck drainage means any waste resulting from deck washings, spillage, rainwater, and runoff from curbs, gutters, and drains including drip pans and work areas within facilities subject to this general permit.

Desalination unit wastes means wastewater associated with the process of creating fresh water from seawater.

Diesel oil means the grade of distillate fuel, as specified in the American Society for Testing and Materials (ASTM) Standard Specifications for Diesel Fuel Oils D975-81, that is typically used as the continuous phase in conventional oil-based drilling fluids, and contains a number of toxic pollutants. For the purpose of this general permit, "diesel oil" includes the fuel oil present at the facility.

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

DMR means discharge monitoring report.

Domestic waste means materials discharged from sinks, showers, laundries, safety showers, eye-wash stations, hand-wash stations, fish cleaning stations, and galleys.

Drilling fluids and drill cuttings, for the purposes of this general permit, means particles generated by drilling into subsurface geological formations and carried out from the hole with the drilling fluid (e.g. seawater with additives) and discharged at the seafloor; this also includes discharge of residual drilling fluids from the mud pit (during mud pit clean-up operations). Drilling fluids are used in rotary drilling operations to clean and condition the borehole. Examples of drill cuttings include small pieces of rock varying in size and texture from fine silt to gravel.

Drill cuttings not associated with drilling fluids, for the purposes of this general permit, means the particles generated by drilling into subsurface geologic formations (sediment and rock layer) and carried out from the subsurface hole with seawater and discharged at the seafloor. Examples of drill cuttings include small pieces of rock varying in size and texture from fine silt to gravel.

Drilling fluid additives include natural thickeners (i.e. Attapulgite clay), a densifier or weighting agent (i.e. barium sulfate; Barite), and/or a lubricant (i.e. polymer gel).

Drilling site means the single, specific geographical location where a facility is positioned (e.g., stationary or anchored vessels, or secured on the ice surface) and conducts oil and gas geotechnical surveys and/or related activities, including the seafloor area impacted by the drilling activity.

Electronic Cone Penetrometer is an in situ investigation method that involves pushing an electronically instrumented probe into the ground that records force resistances, such as tip resistance, local friction, and pore water pressure. Electronic cone penetrometers do not collect sediment samples. *(See also "Cone Penetration Test")*

EMP means Environmental Monitoring Program.

End of Year means, for the purposes of the End of Year Report, after the geotechnical survey and/or other related activities and all authorized discharges have ceased for the calendar year.

EPA means the United States Environmental Protection Agency.

°F means degree Fahrenheit.

FC means fecal coliform.

Fire control system test water means the water released during the training of personnel in fire protection and the testing and maintenance of fire protection equipment.

Free oil refers to any oil contained in a waste stream that when discharged will cause a film or sheen upon or a discoloration of the surface of the receiving water.

gal means gallon.

Garbage means all kinds of victual, domestic, and operational waste, excluding fresh fish and part thereof, generated during the normal operation and liable to be disposed of continuously or periodically except dishwater, graywater, and those substances that are defined or listed in other Annexes to MARPOL 73/78.

GC/MS means Gas Chromatography/Mass Spectrometry.

Geotechnical Surveying and Related Activities, for the purposes of this general permit, means conducting oil and gas geotechnical surveys to evaluate the subsurface characteristics of the seafloor and related activities in federal waters of the Beaufort and Chukchi Seas. Geotechnical surveying involves disturbance of the seafloor. Specifically, borings are collected to assess the structural properties of subsurface sediment conditions for potential placement of oil and gas installations, which may include production and drilling platforms, ice islands, anchor structures for floating exploration drilling vessels, and potential buried pipeline corridors. Geotechnical surveys result in a disturbance of the seafloor and may produce discharges consisting of sediment, rock and cuttings materials, in addition to facility-specific waste streams authorized under this general permit.

Geotechnical "related activities" also result in a disturbance of the seafloor and produce similar discharges. Geotechnical "related activities" may include feasibility testing of mudline cellar construction equipment or other equipment that disturbs the seafloor, and testing and evaluation of trenching technologies.

Geotechnical Facility, for the purposes of this general permit, includes any floating, moored or stationary vessels, jack-up or lift barges, or on-ice vehicles and on-ice equipment with the capacity to conduct geotechnical surveying or related activities (*defined above*).

Grab sample is an individual sample collected over a period of time not exceeding 15 minutes.

hr means hour.

Initiation of discharges means commencing any of the authorized discharges under the general permit.

lb means pound.

Marine sanitation device (MSD) means a sanitary wastewater treatment system specifically designed to meet U.S. Coast Guard requirements.

Maximum daily limit means the highest allowable "daily discharge."

mg/kg means milligrams per kilogram; this is equivalent to parts per million, or 10^{-6}.

mg/l means milligrams per liter, in water; this is equivalent to mg/kg.

mgd means million gallons per day.

Mud Pit is the unit where the drilling fluids (muds) are mixed prior to the use during drilling operations. For the purposes of this general permit, discharges from the mud pit (including mud pit clean-up) must occur at the seafloor and are authorized under Discharge 001.

NOI means Notice of Intent.

Non-contact cooling water means water used for contact, once-through cooling, including water used for equipment cooling, evaporative cooling tower makeup, and dilution of effluent heat content.

NPDES means National Pollutant Discharge Elimination System.

OCS means the Outer Continental Shelf.

Operations cessation means when all geotechnical field survey activities have ceased, including ceasing of all authorized discharges at a drilling site. Geotechnical field operations cessation will typically coincide with the facility's demobilization from the drilling site.

Process wastewater means any water which, during manufacturing or processing, comes into direct contact with or results from the production or use of any raw material, intermediate product, finished product, byproduct, or waste product.

ppm means parts per million.

QA/QC means quality assurance/quality control.

QAPP means Quality Assurance Project Plan.

Sanitary wastes means human body waste discharged from toilets and urinals.

Sensitive biological areas or habitats mean significant or unique biological communities, including areas of high biological productivity, diversity, or vulnerability, as well as important habitat areas for Arctic species.

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 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.

SPP means suspended particulate phase and refers to the bioassay test procedure, "Suspended Particulate Phase (SPP) Toxicity Test," which is published in Appendix 2 of 40 CFR Part 435 Subpart A.

Stable ice means landfast or bottom-fast ice that is stable enough to support geotechnical equipment staged on the ice surface.

Static sheen test means the standard test procedures in Appendix 1 to subpart A of 40 CFR part 435 that have been developed for this industrial subcategory for the purpose of demonstrating compliance with the requirement of no discharge of free oil.

Stock barite means the barite that was used to formulate a drilling fluid.

Stock base fluid means the base fluid that was used to formulate a drilling fluid.

s.u. means standard unit, as for the parameter pH.

µg/l means micrograms per liter.

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.

Victual waste means any spoiled or unspoiled food waste.

Water-based drilling fluid means "drilling fluid" that has water as its continuous phase and the suspending medium for solids. The base fluid may be fresh water, seawater, brine, saturated brine, or a formate brine. For purposes of Discharge 001, water-based drilling fluids are mixed with specific drilling additives (see definition above). For purposes of Discharge 011, seawater is used without the addition of drilling additives.

wt means weight.

96-hour LC_{50} means the concentration (parts per million) or percent of the SPP from a sample that is lethal to 50 percent of the test organisms exposed to that concentration of the SPP after 96 hours of constant exposure. In a similar manner, 24-hour LC_{50} or 48-hour LC_{50} means the concentration lethal to 50 percent of test organisms after 24 or 48 hours, respectively, of constant exposure.