ALASKA POLLUTANT DISCHARGE ELIMINATION SYSTEM

INDIVIDUAL PERMIT – Draft

AK0053686 – Furie Operating Alaska, LLC
Julius R. Platform

ALASKA DEPARTMENT OF ENVIRONMENTAL CONSERVATION
Wastewater Discharge Authorization Program
555 Cordova Street
Anchorage, AK 99501

In compliance with the provisions of the Clean Water Act (CWA), 33 U.S.C. §1251 *et seq*., as amended by the Water Quality Act of 1987, P.L. 100-4, this Permit is issued under provisions of Alaska Statutes (AS) 46.03; the Alaska Administrative Code (AAC) as amended; and other applicable State laws and regulations.

FURIE OPERATING ALASKA, LLC

is authorized to discharge from a mobile offshore drilling unit within the Kitchen Lights Unit Lease Area with the following approximate location:

Location	Latitude	Longitude	Receiving Water
Julius R. Platform	60.936147	-151.15862	Cook Inlet

in accordance with effluent limits, monitoring requirements, and other conditions set forth herein.

This Permit is effective _TBD_.

This Permit and the authorization to discharge shall expire at midnight on __TBD__.

The permittee shall reapply for a permit reissuance on or before _TBD_, 180 days before the expiration of this permit if the permittee intends to continue operations and discharge(s) at the facility beyond the term of this Permit.

The permittee shall post or maintain a copy of this permit to discharge at the facility and make it available to the public, employees, and subcontractors at the facility.

Draft	
Signature	Date
	Program Manager
Printed Name	Title

SCHEDULE OF SUBMISSIONS

The Schedule of Submissions summarizes some of the required submissions and activities the permittee must complete and/or submit to the Alaska Department of Environmental Conservation (DEC) Permitting (P) or Compliance (C) Programs. The permittee is responsible for all submissions and activities specified in the Permit even if they are not summarized in Table 1.

Table 1: Schedule of Submissions

Section	Submittal	Frequency	Due Date	Submit to:[a]
Appendix A and 2.6.6	Discharge Monitoring Report (DMR)	Monthly	On or before the 28th of the following month[b]	C
1.2	Request for Alternative Mobile Offshore Drilling Unit	As Needed	Prior to Discharging	P
4.1.1	Certification the Quality Assurance Project Plan (QAPP) has been developed and implemented	1/Term	Within 90 days after Permit effective date.	C
4.2.2	Certification of the Initial Best Management Practices (BMP) Plan	1/Term	Within 90 days after Permit effective date.	C
4.2.6	BMP Plan Certification	1/year	January 31st of each year during the Permit term	C
2.4.3	Noncontact Cooling Water Chemical Inventory	Annual	January 31st each year following chemical use	C
2.6.1	Chronic Whole Effluent Toxicity (WET) Most Sensitive Invertebrate	1/Term	Based on Initial screening of Invertebrate	P
2.6.1	Substitution for Chronic WET Invertebrate Based on Availability	As needed	Based on Laboratory Availability	P
2.5.3	Written Request for DEC Approval of Methanol Correlation and Reduced Chronic WET Frequency	1/Term	Based on 20 Paired Data Sets with a Correlation of 0.8 or Greater	P
2.5.3	Written Request for DEC Approval for Chemical Substitution for Methanol	As Needed	Based on 10 or More WET Results Showing Reduced Toxicity	P
2.4.4	Notification of Exceedance of Chronic WET Pollution Reduction (PR) BMP Revision Action Levels for Miscellaneous Discharge 009.	1/Event	Within one week of receipt of results exceeding the trigger.	C and P
Appendix A, 1.3	Application for Permit Reissuance	1/Term	180 days prior to Permit Expiration	P
Appendix A, 3.4.1	Oral notification of noncompliance	As Needed	Within 24 hours from the noncompliance event	C
Appendix A, 3.4.1	Written documentation of noncompliance	As Needed	Within 5 days from the noncompliance event	C
Appendix A, 3.5	Other Noncompliance Reporting	As Needed	At the time the permittee submits DMRs	C

a) See Appendix A 1.1 for addresses.
b) This due date supersedes the date shown in Appendix A - Standard Conditions, Sections 3.2.1 and 3.2.3 on Page A-9.

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1.0 PERMIT COVERAGE

1.1 Authorized Discharges

During the effective period of Individual Permit AK0053686 – Furie Operating Alaska, LLC Julius R. Platform (Permit) the permittee is authorized to discharge pollutants from the following discharges within the limitations and subject to conditions set forth herein:

DISCHARGE NUMBER	DISCHARGE DESCRIPTION
002A	Deck Drainage [Julius R. Platform];
002B	Deck Drainage [Mobile Offshore Drilling Unit (MODU)];
003A	Domestic Wastewater [Julius R. Platform];
003B	Domestic Wastewater [MODU];
004B	Graywater [MODU];
008A	Fire Control System Test Water [Julius R. Platform];
009B	Noncontact Cooling Water [MODU];
010B	Uncontaminated Ballast Water [MODU]; and
015A	Produced water [Julius R. Platform].

This Permit authorizes discharge of only those pollutants from facility processes, waste streams, and operations clearly identified in the Permit or permit application process.

1.2 Authorized Facilities

This Permit was developed based on the characterization of wastewater represented by an initial MODU, the Spartan 151. However, this Permit allows discharges from alternative MODUs so long as the discharge characteristics would not represent a material and substantial alteration or addition to the permitted discharges that would require different permit conditions (18 AAC 83.135(b)(1)). The permittee must submit information and a written request for an alternative MODU for Department written approval.

1.3 General Requirements

1.3.1 Discharges shall not cause contamination of surface waters and shall not cause or contribute to a violation of the Alaska Water Quality Standards (18 AAC 70), except if excursions are authorized therein.

1.3.2 The discharge of maintenance waste such as removed paint and materials associated with surface preparation and coating application is prohibited.

1.3.3 Discharges may not alone or in combination with other substances or wastes, make the water unfit or unsafe for the use; cause a film, sheen, or discoloration on the surface of the water or adjoining shorelines; cause leaching of toxic or other deleterious substances; or cause a sludge, solid, or emulsion to be deposited beneath or upon the surface of the water, within the water column, on the bottom, or upon adjoining shorelines.

1.3.4 For purposes of reporting on the DMR for a single sample, if a value is less than the method detection limit, the permittee must report “less than [numeric value of method detection limit]” and if a value is less than a minimum level (ML), the permittee must report “less than [numeric value of ML].” This provision is not applicable to reporting total aromatic hydrocarbons (TAH) or total aqueous hydrocarbons (TAqH).

1.3.5 For purposes of calculating a monthly average, zero (0) may be assigned for a value less than the method detection limit, and the [numeric value of method detection limit] may be assigned for a value between the method detection limit and the ML. If the average value is less than the method detection limit, the permittee must report "less than [numeric value of method detection limit]" and if the average value is less than the ML, the permittee must report "less than [numeric value of ML]." If a value is equal to or greater than the ML, the permittee must report and use the actual value. The resulting average value must be compared to the limit in assessing compliance. This provision is not applicable to reporting TAH or total aqueous hydrocarbons TAqH.

1.3.6 For purposes of reporting on the DMR for a single sample for TAqH where the parameter is a summation of results of individual analytes, estimated (e.g., "J" estimates) are considered as nondetectable. When all individual analytes are nondetectable, or estimates, the permittee must report the categorical summation of the common method detection limits with a "less than [categorical summation of method detection limits]." If any of the analytes are detectable, the permittee must report the summation of only the detected analytes on the DMR without a less than symbol. See Appendix C for Definition of Categorical Sum.

1.3.7 For all effluent compliance monitoring outlined in Section 2.0 the permittee must use an analytical test method approved under Code of Federal Regulations (CFR) Title 40 (40 CFR) Part 136 and adopted by reference at 18 AAC 83.010, that can achieve a reporting limit less than the effluent limit. The permittee must use the method with a sufficiently sensitive method detection limit (See Appendix C – Definitions).

1.3.8 For any permit condition that requires onsite records be maintained and made available upon request, the permittee may use readily accessible electronic documents in lieu of hardcopy information to comply with these requirements.

1.3.9 The permittee must minimize the discharge of surfactants, dispersants, and detergents except as necessary to comply with the safety requirements of the Occupational Health and Safety Administration. This restriction applies to tank cleaning and other operations that do not directly involve the safety of workers.

1.3.10 When applying effluent limits to commingled discharges, the more stringent effluent limits apply to the commingled discharge. If a commingled waste stream is not authorized per Section 1.1, then the commingled discharge is not authorized. Monitoring for compliance with technology-based effluent limits must be accomplished prior to commingling.

1.3.11 The permittee must report all violations of maximum daily limits (MDLs) per Appendix A, Standard Conditions, Section 3.4 – 24-Hour Reporting. Violations of all other effluent limits, such as average monthly limits (AMLs), are to be reported per Appendix A, Standard Conditions, Section 3.5 – Other Noncompliance Reporting.

1.3.12 This Permit does not absolve the permittee from obtaining permits or authorizations from other Federal, State, or local agencies necessary to conduct activities (e.g., Incident Take or Incident Harassment Authorizations).

2.0 EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

2.1 Effluent Limits and Monitoring Requirements for Deck Drainage

In addition to meeting the requirements in Section 1.3, the permittee must limit and monitor deck drainage discharges per Table 4 and the subsequent referenced subsections.

Table 2: Effluent Limits and Monitoring Requirements for Deck Drainage (Discharge 002A/B)

Parameter (Units)	Effluent Limitations	Monitoring Requirements	
		Frequency	Type
Total Flow Volume (million gallons per day (mgd)) 2.1.1	Report	Monthly	Estimated
Oil and Grease (Sheen) 2.1.2	No Discharge	Daily	Visual

2.1.1 Total Flow Volume

The Permit requires flow volumes to be estimated daily, maintained in a log at the facility, and made available to DEC upon request. The total monthly volume must be reported on the DMR.

2.1.2 Oil and Grease (Sheen)

The permittee must ensure that deck drainage contaminated with oil and grease is processed through an oil-water separator (OWS), or other oil removal process, prior to discharge. Daily while discharging, the permittee must observe the receiving water surface during a time when observation of the water surface is possible and record observations in a daily log maintained onsite. If conditions prevent observations, the permittee may use the Static Sheet Test (EPA Method 1617). Static Sheen Test equipment must be maintained onsite.

2.1.3 Contaminated Deck Drainage Separation BMPs

Per Section 4.2.9.1, the permittee must develop BMPs to ensure deck drainage that is contaminated with oil and grease is processed through an oil-water separator, or other similar treatment process, prior to discharge

2.2 Effluent Limits and Monitoring Requirements for Domestic Wastewater

In addition to meeting the requirements in Section 1.3, the permittee must limit and monitor domestic wastewater discharges per Table 3 and the subsequent referenced subsections.

Table 3: Effluent Limits and Monitoring Requirements for Domestic Wastewater Discharge 003A/003B

Parameter (Units)	Effluent Limits		Monitoring Requirements	
	MDL	AML	Frequency	Sample Type
Flow (gallons per day(gpd))	---	Report	1/month	Estimate or Meter
pH (standard units(su))	$6.5 \leq pH \leq 8.5$		1/month	Grab or Meter
Total Suspended Solids (TSS) (milligrams per Liter (mg/L))	60	30	1/month	Grab
Five-Day Biochemical Oxygen Demand (BOD_5) (mg/L)	60	30	1/month	Grab
Total Residual Chlorine (TRC) Minimum (mg/L) [2.2.1]	1.0		1/month	Grab
TRC Maximum (mg/L) [2.2.2]	1.0		1/month	Grab
Enterococci Bacteria (Colony Forming Units per 100 milliliters (cfu/100 ml)	Report		1/quarter	Grab
Fecal Coliform (FC) Bacteria (Most Probable Number (MPN)/100 ml)	Report		1/quarter	Grab

2.2.1 TRC Minimum

The compliance point for TRC minimum is immediately after chlorination and must be maintained as close as practicable to 1.0 mg/L.

2.2.2 TRC Maximum

The compliance point for TRC maximum is after the dechlorination treatment prior to commingling.

2.2.3 Domestic Wastewater Treatment System BMPs

During the term of the Permit, the permittee must develop and implement specific BMPs that help ensure compliance with permit limits per Section 4.2.9.6.1. The specific BMPs must include standard operation procedures (SOPs), training objectives, maintenance activities, treatment system troubleshooting, or other elements deemed necessary to ensure compliance.

2.3 Effluent Limits and Monitoring Requirements for Graywater

In addition to meeting the requirements in Section 1.3, the permittee must limit and monitor graywater discharges per Table 4.

Table 4: Effluent Limits and Monitoring Requirements for Graywater (Discharge 004B)

Parameter (Units)	Effluent Limits	Monitoring Requirements	
		Frequency	Type
Total Monthly Volume (million gallons (mg)) [2.3.1]	Report	Monthly	Estimate or Measured
Oil and Grease (visible sheen) [2.3.2]	No Discharge	Daily	Observation
TRC (mg/L) [2.3.3]	Maximum 1.0	Monthly	Measure

2.3.1 Total Monthly Volume

The Permit requires effluent flow volume to be to measured or estimated for each month a discharge occurs with the total monthly volume reported on the DMR.

2.3.2 Oil and Grease (Visible Sheen)

The Permit prohibits the discharge of oil and grease as determined by a visible sheen on the receiving water surface. Receiving water observations must be conducted once per day during daylight at the time of maximum estimated discharge (e.g., following morning or midday meals). Observations must be recorded in daily operating logs and made available upon request by DEC. To support this narrative limit, the permittee must develop specific housekeeping BMPs to minimize introduction of oil and grease and foam causing agents at the source per Section 4.2.9.2.

2.3.3 Total Residual Chlorine Maximum

For MODUs that use a marine sanitation device (MSD) to treat graywater to greater than primary treatment (e.g., Spartan 151), the Permit establishes a maximum limit on the concentration of TRC of 1.0 mg/L after dechlorination and prior to discharge. The permittee must develop specific BMPs to ensure proper operation and maintenance of the chlorination and dechlorination systems per Section 4.2.9.6.2. If the MODU uses a treatment system other than an MSD to provide primary treatment, the 1.0 mg/L maximum TRC limit and specific BMPs do not apply.

2.4 Effluent Limits and Monitoring Requirements for Miscellaneous Discharges

In addition to the requirements in Section 1.3, the permittee must limit and monitor miscellaneous discharges as specified in Table 5 and the subsequent referenced subsections.

Table 5: Effluent Limits and Monitoring Requirements for Miscellaneous Discharges (Discharge 008A; Discharge 009B; and Discharge 010B)

Parameter	Effluent Limitations	Monitoring Requirements	
		Frequency	Type
Maximum Daily Flow (mgd) [2.4.1]	Report	Monthly	Estimate
Oil and Grease (visual sheen) [2.4.2]	No Discharge	Daily	Visual
Chemical Inventory [2.4.3]	Report	Once/Year	Inventory
Chronic WET [2.4.4, 2.4.5 and 2.6]	Report	Once/Year	Grab

2.4.1 Maximum Daily Flow

The Permit requires the maximum daily effluent flow for a given month to be to measured, or estimated, and reported in mgd on the DMR. If chemicals have been added to the discharge, the daily flow measurement must be conducted over a 24-hour period and recorded in a log and made available to DEC upon request. If chemicals are used and the 24-hour flow volume is greater than 10,000 gpd, the permittee must collect grab samples that are representative of the chemically treated effluent and conduct a chronic WET testing per Section 2.6 and chemical inventory per Section 2.4.3.

2.4.2 Oil and Grease (Visible Sheen)

The prohibition of oil and grease visible sheen applies to all miscellaneous discharges:

- Discharges 008A – Fire Control Test Water;
- Discharge 009B – Noncontact Cooling Water; and
- Discharge 010B – Uncontaminated Ballast Water.

The permittee must observe for a visible sheen on the water surface during slack tide while discharging or by Static Sheen Test at the permittee's discretion. If the ballast water from the MODU (Discharge 010B) to be discharged has visible sheen, the discharge must be treated using an OWS, or equivalent treatment process (See Specific BMP in Section 4.2.9.3).

2.4.3 Chemical Inventory

The permittee is allowed to use chemical additives in Noncontact Cooling Water (Discharge 009B) but in a manner that does not exceed the most stringent of the following four constraints:

- The maximum concentrations and any other conditions specified in the Environmental Protection Agency (EPA) product registration labeling if the chemical is an EPA registered chemical;
- The maximum manufacturer's recommended concentration;
- 500 mg/L; or
- The estimated chronic toxicity based on the mixed concentration of the chemical(s) in the waste stream may not be greater than 189 chronic toxicity units (TU_c) based on the most limiting 25 percent (%) effect concentration listed from the aquatic toxicological information obtained in material data sheet (MDS) for the chemical,

if available. Note that when only acute toxicity data is provided on an MDS, the permittee must use a reported acute to chronic ratio (ACR) for that chemical and species, or a default ACR of 10, to estimate the TU_c of the mixture.

The permittee must maintain a precise chemical inventory of all constituents added, including the time, dose, and frequency of each chemical additive used in miscellaneous discharges. The permittee must submit these inventory records to DEC annually with BMP certifications required in Section 4.2.6.2 even if no chemicals have been used.

2.4.4 Specific Pollution Reduction BMPs and BMP Revision Action Levels

For Noncontact Cooling Water (Discharge 009B) with chemical additives and a discharge greater than 10,000 gpd, the permittee must implement a chemical dosing BMP to optimize the use of chemicals and to minimize the potential for chronic toxicity per Section 4.2.9.4. In addition, the permittee must make revisions to existing BMPs should any single chronic WET result exceed the Pollution Reduction (PR) BMP Revision Action Level of 189 TU_c.

If a PR BMP Revision Action Level is exceeded, the permittee must revise the BMP to achieve less toxicity in the subsequent WET test. These BMPs could be operational or physical modifications to the chemical dosing system. The permittee must notify DEC in writing within one week of obtaining chronic WET results that exceed the chronic WET PR BMP Revision Action Level of 189 and submit a letter within 60 days specifying what BMP revisions will be implemented prior to the next scheduled chronic WET monitoring event. If BMPs require modification to the physical system, updated line diagrams must be developed and submitted to DEC as an attachment to the letter. Note, DEC may require additional monitoring per Section 2.6.5.1. The revised BMP must be implemented to satisfy compliance with this specific BMP requirement for pollution reduction. Revisions must continue until the PR BMP Plan Action Level is achieved. If the discharge of chemicals is eliminated, no PR BMPs are required. If chemicals are used but the discharge is reduced below 10,000 gpd, chronic WET testing is not required and the permittee must follow the chemical dosing limitations of Section 2.4.3.

2.4.5 Specific Chronic WET Requirements for Chemically Treated Noncontact Cooling Water

Chronic WET monitoring applies Noncontact Cooling Water (Discharge 009B) if chemical additives are used and greater than 0.010 mgd (10,000 gpd) is discharged over a 24 hour period, including discharges that may be commingled and discharged accumulatively.

2.4.5.1 Test Species

For discharges that have chemical additives and discharge 0.01 mgd (10,000 gpd) or more in a 24 hour period, the permittee is required to conduct chronic WET monitoring on one invertebrate species listed in Section 2.6.1.2.

2.4.5.2 Dilution Series

The dilution series for chronic WET monitoring of chemically treated Noncontact Cooling water must bracket the PR BMP Reduction Action Level represented by the trigger of 189 TU_c. Hence, the dilution series is 0.125, 0.25, 0.5, 1.0, and 2.0 including a control (zero % effluent).

2.4.5.3 Monitoring Frequency:

When WET monitoring is required based on the condition of chemical use and daily flow volume, the permittee must conduct chronic WET monitoring annually. Note that this frequency does not include possible accelerated testing per Section 2.6.5.1.

2.4.5.4 Sample Collection

The permittee must evaluate chemical dosing practices versus sample collection methods and timing in order to ensure the collected sample is representative of the toxicity of the dosing. For example, for continuous discharges with continuous chemical injection rates a grab or composite sample could result in collection of a representative sample. However, if the discharge is intermittent and/or chemical dosing is discontinuous, the permittee must evaluate the timing and duration of peak concentrations in the effluent to properly time sample events to obtain a representative sample. Each facility must have a QAPP that specifies this procedure (See Section 4.1) and the subsequent referenced subsection.

2.5 Effluent Limits and Monitoring Requirements for Produced Water

In addition to the requirements in Section 1.3, the permittee must limit and monitor miscellaneous discharges as specified in Table 6 and subsequent referenced subsections.

Table 6: Effluent Limits and Monitoring Requirements for Produced Water (Discharge 015)

Parameter (Units)	Effluent Limitations		Monitoring Requirements	
	MDL	AML	Frequency	Sample Type
Flow Rate (mgd)	Report	0.21	1/Week	Estimate or Measure
pH (su)	6.0 < pH < 9.0		1/Week	Grab
Oil and Grease (Visible Sheen) [2.5.1]	No Discharge		1/Week	Observation
Oil and Grease (mg/L)	42	29	1/Week	Grab
Total Recoverable Copper (µg/L)	16.7	8.3	1/Month	Grab
Chronic WET (TU_c) [2.5.2, 2.5.3 and 2.6]	410	---	1/Month	Grab
Methanol (mg/L) [2.5.3]	Report		1/Month	Grab
TAH (µg/L)	Report		1/Quarter	Grab
TAqH (µg/L)	Report		1/Quarter	Grab
Selenium (µg/L)	Report		1/Quarter	Grab
Nickel (µg/L)	Report		1/Quarter	Grab
Manganese (µg/L)	Report		1/Quarter	Grab
Mercury (µg/L)	Report		1/Quarter	Grab

2.5.1 Visual Sheen and Supplemental Oil and Grease Monitoring

While discharging from platforms, the permittee shall monitor for oil and grease using visual observations of the receiving water surface in the vicinity of the discharge during periods of the day when observation of a sheen on the water surface is possible. If conditions prevent observations, the permittee may use the Static Sheet Test (EPA Method 1617). Static Sheen Test equipment must be maintained onsite. Observations must be maintained in a log at the facility and reported on the DMR. Upon observation of a sheen, a supplemental oil and grease sample must be collected and analyzed by a

laboratory for verification the numeric limit has not been exceeded. This requirement does not apply to shore based facilities or unmanned platforms.

2.5.2 Specific Chronic WET Monitoring of Produced Water for Permit Compliance

There are two purposes for conducting chronic WET monitoring under the Permit, compliance with the limit in Table 12 and chronic toxicity characterization and correlation to methanol per Section 2.5.3. To comply with chronic WET limits, the permittee is required to conduct chronic WET monitoring for both a vertebrate and invertebrate species discussed in Sections 2.6.1.1 and 2.6.1.2, respectively.

The compliance dilution series is based on a pass/fail approach and, accordingly, must bracket the critical dilution associated with the limit, two dilutions above and below the critical dilution of 0.25. The compliance dilution series is 0.0625, 0.125, **0.25**, 0.5, 1.0 including a control (zero % effluent). Should any chronic WET result exceed the limit in Table 6, the permittee must notify DEC within 24 hours per Appendix A - Standard Conditions Section 3.4.1 and research the high toxicity event. The permittee must provide written notification to DEC within one week to provide information on the circumstances of the high toxicity event and provide an assessment as to what may have caused the exceedance of the chronic WET limit. The permittee must repeat the chronic WET monitoring within 30 days of notifying DEC and submit a follow up written notification of the subsequent results. Based on these results, DEC may require additional monitoring per Section 2.6.5.1.

2.5.3 Specific Chronic WET Monitoring of Produced Water for Characterization/Correlation

Currently, there is no facility-specific data that compares methanol concentrations to chronic toxicity. Based on initial characterization discussed in Fact Sheet Section 2.2, ongoing characterization is necessary to develop a correlation with methanol concentrations with the intent of using methanol as a surrogate for compliance with chronic toxicity. In addition, chronic toxicity characterization is necessary to support the next application for reissuance. Lastly, if the permittee seeks to substitute another chemical for methanol, it too would need to be characterized to demonstrate the substitute has less toxicity than methanol to support DEC approval for use under the Permit.

The characterization dilution series is different than the pass/fail dilution series used for compliance; the toxicity is anticipated to be observed in much higher dilutions and is likely variable and correlated to the concentration of methanol. The investigative objectives for characterizing and correlating methanol to toxicity requires flexibility in applying dilution series so that it brackets “actual effluent toxicity.” Therefore, the initial dilution series of 0.75, 1.5, 3, 6, 12, 24 including a control (zero % effluent) and maximum dilution after hypersaline adjustment (approximately 70 %) is proposed and can be adjusted based on previous results to help ensure useful data is collected. DEC encourages coordination on dilution series adjustments but pre-approval is not required. For characterization and correlation of produced water, the most sensitive invertebrate species is required per Sections 2.6.1 and 2.6.1.2; testing of vertebrate species is not required for produced water characterization or correlation. It is incumbent upon the permittee and the contract laboratory to ensure appropriateness of the data collected by developing BMP procedures per Section 4.2.9.5 and supported by a QAPP per Section 4.1. Note that the QAPP for methanol characterization procedures may be included in the BMP Plan so long as it is appropriately labeled as a QAPP section of the Plan.

Methanol monitoring for characterization must be conducted monthly with the chronic WET results to determine if a correlation may be effective for monitoring that the effluent does not exceed the chronic WET limit of 410 TU_c. A reasonable demonstration of a correlation will be based on a minimum of 20 paired data sets (i.e., the chronic WET result representing the most sensitive species and the methanol concentration) and a correlation coefficient greater than 0.8. A reasonable data set to approve a substitution is based on 10 WET results indicating the toxicity is less than that for methanol after applying a multiplier to account for variability (i.e., reasonable potential multiplier). Based on presenting a reasonable demonstration that a correlation between chronic toxicity and methanol concentrations exists for the effluent, or correlation to other approved chemical substitutions for methanol, the permittee may submit a written request to DEC for a frequency reduction to quarterly on compliance monitoring of chronic WET for produced water. If approved by DEC in writing, the quarterly chronic WET monitoring will use a dilution series for characterization in this section, rather than pass/fail dilution series described in Section 2.5.2. The written approval may include other reporting requirements associated with using methanol, or other chemicals, as a surrogate for chronic toxicity.

2.5.4 Produced Water Treatment System SOPs

To properly operate and maintain the produced water system in compliance with the Permit, the permittee must develop specific BMPs per Section 4.2.9.6.3 for the separation unit and two-stage filtration system, including the flotation add-on to the separation unit if applicable.

2.6 Chronic WET Monitoring Requirements

The permittee must conduct chronic WET testing per this section while applying discharge-specified requirements for noncontact cooling water discharges in Section 2.4.5 that supersedes requirements in this section for test species, dilution series, sampling frequencies, and sample collection. See also Section 2.5.3 for specific chronic WET monitoring of produced water for methanol characterization and correlation studies and for chemical substitutions for methanol.

2.6.1 **Test Species and Methods**

When chronic WET monitoring is required by the Permit, the permittee must conduct chronic WET testing on one vertebrate and one invertebrate species unless otherwise stated in discharge specific sections of the Permit (See Section 2.4.5). The permittee must conduct the WET testing to screen for the most sensitive invertebrate species in Section 2.6.1.2 once per permit term for each discharge (i.e., noncontract cooling water and produced water). For produced water, the appropriate dilution series for screen most sensitive species is that for characterization per Section 2.5.3. The elimination of the less sensitive species over more sensitive invertebrate species must be approved by DEC in writing for use in subsequent chronic WET tests. Upon identification of the most sensitive test species, the permittee may submit a written request to eliminate the less sensitive species in subsequent WET analysis for DEC approval. DEC can also approve written requests to substitute the less sensitive species during periods when the more sensitive species is unavailable. The permittee shall not make any changes to the selection of test species without prior written DEC approval.

2.6.1.1 Vertebrate (survival and growth)

Atherinops affinis (topsmelt). In the event that topsmelt is not available, *Menidia beryllina* (inland silverside) may be used as a substitute. The permittee shall document the use of substitute species in the DMR for the testing.

2.6.1.2 Invertebrate

For larval development tests, the permittee must use bivalve species *Crassostrea gigas* (Pacific Oyster) or *Mytilus spp.* (mussel) and *Americamysis bahia* (formerly *Mysidopsis bahia*, mysid shrimp) for survival and growth. Due to seasonal variability, testing may be performed during reliable spawning periods (e.g., December through February for mussels and June through August for oysters).

2.6.2 Monitoring Frequency

See discharge-specific sections for frequency requirements, Sections 2.5.2 and 2.5.3 for produced water and Section 2.4.5.3for chemically treated noncontact cooling water.

2.6.3 Procedures

The permittee must conduct chronic WET testing using the following procedures.

2.6.3.1 Methods and Endpoints

For the shrimp and alternate fish species, inland silverside, the presence of chronic toxicity must be estimated as specified in *EPA Short-Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Marine and Estuarine Organisms, Third Edition* (EPA 821 R 02 014). For the bivalve species and topsmelt, chronic toxicity must be estimated as specified in *Short-Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Water to West Coast Marine and Estuarine Organisms* (EPA/600/R 95/136). The WET testing will determine the 25 % effect concentration (EC_{25}) endpoint estimate of the effluent concentration that would cause a 25 % reduction in normal embryo development for the bivalves or in survival for fish and/or mysid shrimp. The WET testing will also determine the 25 % inhibition concentration (IC_{25}) point estimate of the effluent concentration that would cause a 25 % reduction in the growth of the fish and/or mysid shrimp.

2.6.3.2 Reporting Results

Results must be reported on the DMR using TU_c, where $TU_c = 100/EC_{25}$ or $100/IC_{25}$. The reported EC_{25} or IC_{25} must be the lowest point estimate calculated for the applicable survival, growth or normal embryo development endpoints. The permittee must report the no observed effect concentrations (NOECs) in the full WET test report. DEC may compare this information with the IC_{25} during reissuance of the Permit.

2.6.3.3 Acute Toxicity Estimates

Although acute WET testing is not required, the permittee must provide an estimate of acute toxicity based on observations of mortality when appropriate (e.g., survival endpoints). Acute toxicity estimates, if available, must be documented in the full report.

2.6.3.4 Dilution Series

A series of at least five dilutions and a control must be tested. See Section 2.4.5.2

for dilution series for chemically treated noncontact cooling water. For compliance monitoring of produced water see Section 2.5.2 and Section 2.5.3 for characterization and correlation of produced water. Depending on objectives for characterization, DEC may provide written direction to modify the previous dilution series based on review of previous test results.

2.6.3.5 Hold Times

WET sample holding times are established at 36 hours but longer hold times up to 72 hours may be approved by DEC. The permittee must document the conditions that resulted in the need for the holding time to exceed 36 hours and the potential effect on the test results.

2.6.3.6 Additional Quality Assurance Procedures

In addition to those quality assurance measures specified in the methodology, the following quality assurance procedures must be followed:

a) If organisms are not cultured by the testing laboratory, concurrent testing with reference toxicants must be conducted, unless the test organism supplier provides control chart data from at least the previous five months of reference toxicant testing. Where organisms are cultured by the testing laboratory, monthly reference toxicant testing is sufficient.

b) If either of the reference toxicant tests or the effluent tests does not meet all test acceptability criteria as specified in the test methods manual, then the permittee shall re-sample and re-test within the following month.

c) Control and dilution water must be receiving water, or salinity adjusted lab water. If the dilution water used is different from the culture water, a second control, using culture water must also be used.

2.6.4 WET Reporting

2.6.4.1 DMRs and Full Report Deliverables

The permittee shall submit chronic WET test results on next month's DMR following the month of sample collection. The permittee must also submit the full WET Report as an attachment to the DMR per Section 2.6.6

2.6.4.2 Full Report Preparation

The report of results shall include all relevant information outlined in Section 10 of Report Preparation in the *EPA Short-Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Marine and Estuarine Organisms, Third Edition* (EPA 821 R 02 014).

2.6.4.3 Additional Reporting Information

In addition to toxicity test results, the permittee shall report:

a) The date and time of sample collection and initiation of each test,

b) The discharge flow rate at the time of sample collection, and

c) A list of corrosion inhibitors, biocides, algaecides, clarifying agents, or other additives being used by facility that could potentially be in the effluent during the 30 day period preceding sampling, and

d) All raw data and statistical analysis from the tests, including reference toxicant tests.

2.6.5 Additional Effluent Monitoring

2.6.5.1 Additional Monitoring per DEC Request

DEC may require additional monitoring of effluent or receiving water for facility or site-specific purposes, including, but not limited to: data to support applications, demonstration of water quality protection, obtaining data to evaluate ambient water quality, evaluating causes of elevated concentrations of parameters in the effluent, and conducting chronic WET monitoring or toxicity identification and reduction evaluations. If additional monitoring is required, DEC will provide the permittee or applicant the request in writing.

2.6.5.2 Additional Monitoring at Permittee Discretion

The permittee also has the option of taking more frequent samples than required under the Permit. These additional samples must be used for averaging if they are conducted using the Department approved test methods (generally found in 18 AAC 70 and 40 CFR 136 [adopted by reference in 18 AAC 83.010]). The results of any additional monitoring must be included in the calculation and reporting of the averaged data on DMRs as required by the Permit and Standard Conditions Part 3.2 and 3.3 (Permit Appendix A).

2.6.5.3 Sufficiently Sensitive Methods

Monitoring for effluent limitations must use methods with method detection limits that are less than the effluent limitations or are sufficiently sensitive. Monitoring effluent or receiving water for the purpose of comparing to water quality criteria must use 40 CFR 136 approved methods that are less than the applicable water quality criteria or are sufficiently sensitive per 40 CFR 122.21(a)(3). See Sufficiently Sensitive in Appendix C – Definitions.

2.6.6 Discharge Monitoring Reports

2.6.6.1 Monitoring required in Section 2.0 shall be summarized each month in NetDMR per Section 2.6.7.1.

2.6.6.2 This Permit requires the permittee to submit DMRs required in Section 2.6.6.1 even for months when discharges do not occur. The Permittee must submit a DMR indicating no discharge has occurred.

2.6.6.3 The DMR must be submitted to DEC by the 28th day of the following calendar month per Section 2.6.6.3.

2.6.6.4 The permittee must sign and certify all DMRs, reports, and other submittals in accordance with signatory requirements in Section 1.12 of Appendix A - Standard Conditions.

2.6.7 Electronic Reporting

2.6.7.1 E-Reporting Rule, Phase I (DMRs).

The permittee must submit a DMR for each month by the 28th day of the following month. DMRs shall be submitted electronically through NetDMR per Phase I of the E-Reporting Rule (40 CFR 127). Authorized persons may access permit information by logging into the NetDMR Portal (http://cdxnodengn.epa.gov/oeca-netdmr-web/action/login). DMRs submitted in compliance with the E-Reporting Rule are not required to be submitted as described in Permit Appendix A – Standard Conditions unless requested or approved by the Department. Any DMR data required by the Permit that cannot be reported in a NetDMR field (e.g. full WET reports, mixing zone receiving water data, etc.), shall be included as an attachment to the NetDMR submittal. DEC has established an e-Reporting Information website (https://dec.alaska.gov/water/compliance/electronic-reporting-rule) that contains general information about this new reporting format. Training materials and webinars for NetDMR can be found at https://netdmr.zendesk.com/home.

2.6.7.2 E-Reporting Rule - Phase II (Other Reports).

Phase II of the e-Reporting Rule specifies that permittees will integrate electronic reporting for all other reports required by the Permit (e.g., Annual Reports and Certifications) and implementation is expected to begin during the term of the Permit. Permittees should monitor the DEC e-Reporting website (https://dec.alaska.gov/water/compliance/electronic-reporting-rule) for updates on Phase II of the E-Reporting Rule and will be notified when they must begin submitting all other reports electronically. Until such time, other reports required by the Permit may be submitted in accordance with Permit Appendix A – Standard Conditions.

3.0 Mixing Zones

The Department authorizes the following mixing zones for this Permit:

3.1 Platform/MODU Domestic Wastewater (003A and 003B or 004B Combined)

The outfalls for domestic wastewater from the platform and MODU are combined for a single mixing zone. The discharge of graywater from the MODU (Discharge 004B) can be substituted for the domestic wastewater (Discharge 003B) given each is limited to 1.0 mg/L TRC, DEC authorizes an acute and chronic mixing zone for total residual chlorine. The acute mixing zone is a 17-meter radii cylindrically shaped mixing zone extending from the sea surface to the seafloor with an authorized dilution factor of 77. The chronic mixing zone is a 35-meter radii cylindrically shaped mixing zone extending from the sea surface to the seafloor with an authorized dilution factor of 133.

3.2 MODU Graywater Discharged Overboard (Discharge 004B Individually)

For graywater discharged from the MODU overboard and above the water surface, DEC authorizes a 2-meter radii cylindrically shaped acute mixing zone and a 5-meter radii cylindrically shaped chronic mixing zone both extending from the sea surface to the seafloor. The authorized dilution factors are 133 chronic and 77 acute.

3.3 Miscellaneous Discharges (Discharge 009B)

DEC authorizes a standardized 100-meter radii, cylindrically shaped chronic mixing zone for chronic WET and temperature extending from the sea surface to the seafloor with an authorized chronic dilution factor of 189 for noncontact cooling water.

3.4 Produced Water (Discharge 015)

DEC authorizes a rectangular shaped chronic mixing zone for chronic WET, copper, silver, and selenium that is 220-meters long (110 meters in each prevailing current direction) by 48-meters wide extending from the sea surface to the seafloor. In addition, DEC authorizes a 0.4-meter radii acute mixing zone for copper that extends from the sea surface to the seafloor. The authorized chronic dilution is 250 and the acute is 3.25.

4.0 SPECIAL CONDITIONS

4.1 Quality Assurance Project Plan

4.1.1 The permittee must develop a facility-specific QAPP for all monitoring required by this Permit. The permittee must submit written notice to DEC affirming that the QAPP is up to date and is being implemented within 90 days of the effective date of this Permit. Any existing QAPP may be modified under this Section.

4.1.2 All procedures in the previous QAPP must be followed until the new QAPP has been implemented.

4.1.3 The QAPP must be designed to assist in planning for the collection and analysis of effluent and other water samples in support of the Permit and to help explain data anomalies whenever they occur.

4.1.4 At the discretion of the permittee, QAPP content specific to characterization and correlation of methanol, or substitution of methanol in produced water, per Section 4.2.9.5 may be included in the BMP Plan so long as the subsection is titled “QAPP.”

4.1.5 The permittee may use the generic DEC Wastewater Treatment Facility Quality Assurance Project Plan (DEC QAPP) as a template to develop a facility-specific QAPP required per Section 4.1.1. If using the generic DEC template, the developed QAPP must be specific for the facility.

4.1.6 Throughout all sample collection and analysis activities, the permittee must use DEC-approved quality assurance and quality control (QA/QC) and chain-of-custody procedures, as described in the *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 specified in these documents.

4.1.7 At a minimum, a QAPP must include:

4.1.7.1 Details on number of samples, type of sample containers, preservation of samples, holding times, analytical methods, analytical detection and quantitation limits for each target compound, type and number of quality assurance field samples, precision and accuracy requirements, sample preparation requirements, sample shipping methods, and laboratory data delivery requirements;

4.1.7.2 Maps indicating the location of each sampling point;

4.1.7.3 Qualification and training of personnel; and

4.1.7.4 Name, address, and telephone number of all laboratories used by or proposed to be used by the permittee.

4.1.8 The permittee must amend the QAPP whenever sample collection, sample analysis, or other procedure addressed by the QAPP is modified.

4.1.9 Copies of the QAPP must be kept on site and made available to DEC upon request.

4.2 Best Management Practices Plan

4.2.1 Purpose

Through implementation of the BMP Plan the permittee must prevent or minimize the generation and the potential for release of pollutants from the facility to the waters of the U.S. through normal and ancillary activities.

4.2.2 Development and Implementation Schedule

The permittee must develop and implement a BMP Plan which achieves the objectives and the specific requirements listed below. The permittee must submit written notice to DEC that the Plan has been developed and implemented within 90 days of the effective date of the Permit. An existing BMP Plan may be modified for compliance with this Section.

4.2.3 Objectives

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

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

4.2.3.2 Under the BMP Plan and especially within any standard operating procedures in the BMP Plan, the permittee must ensure proper operation and maintenance of water management and wastewater treatment systems. BMP Plan elements must be developed in accordance with good engineering practices.

4.2.3.3 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 U.S. due to equipment failure, improper operation, natural phenomena such as rain or snowfall, etc. The examination must include all normal operations and ancillary activities including material storage areas, storm water, in-plant transfer, material handling and process handling areas, loading or unloading operations, spillage or leaks, sludge and waste disposal, or drainage from raw material storage.

4.2.4 Elements of the BMP Plan. The BMP Plan must be consistent with the objectives above and the general guidance contained in *Guidance Manual for Developing Best Management Practices* (EPA 833-B-93-004, October 1993), *Storm Water Management for Industrial Activities, Developing Pollution Prevention Plans and Best Management Practices* (EPA 832-R-92-006) or any subsequent revision to these guidance documents.

4.2.5 Plan Components

The BMP Plan must include, at a minimum, the following items:

4.2.5.1 Statement of BMP Policy. The BMP Plan must include a statement of management commitment to provide the necessary financial, staff, equipment, and training resources to develop and implement the BMP Plan on a continuing basis.

4.2.5.2 The BMP Plan must establish a BMP Committee responsible for developing, implementing, and maintaining the BMP Plan. Specify the structure, functions, and procedures of the BMP Committee.

4.2.5.3 Description of potential pollutant sources.

4.2.5.4 Risk identification and assessment.

4.2.5.5 Standard operating procedures to achieve the above objectives and specific best management practices (See Below).

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

4.2.5.5.2 Materials compatibility.

4.2.5.5.3 Good housekeeping.

4.2.5.5.4 Inspections.

4.2.5.5.5 Preventative maintenance and repair.

4.2.5.5.6 Security.

4.2.5.5.7 Employee training on the BMP Plan.

4.2.5.5.8 Record keeping and reporting.

4.2.5.5.9 Prior evaluation of any planned modifications to the facility to ensure that the requirements of the BMP plan are considered as part of the modifications.

4.2.5.5.10 Final constructed site plans, drawings, and maps (including detailed storm water outfall/culvert configurations).

4.2.6 Review and Recertification

The BMP Plan must be reviewed and recertified as follows:

4.2.6.1 Annual review by the MODU operator and BMP Committee.

4.2.6.2 Certified statement the above reviews were completed and the BMP Plan fulfills the requirements set forth in this Permit. The statement must be certified by the dated signatures of each BMP Committee member. The statement must be submitted to DEC on or before January 31st of each year of operation under this Permit after the initial BMP Plan submittal (Section 4.2.2).

4.2.7 Documentation.

The permittee must maintain a copy of the BMP Plan at the facility and make it available to DEC or an authorized representative upon request. Electronic copies are appropriate so long as they are available during inspections.

4.2.8 BMP Plan Modification

4.2.8.1 The permittee must amend the BMP Plan whenever a change in the facility or in the operation of the facility materially increases the generation of pollutants or their release or potential release to receiving waters.

4.2.8.2 The permittee must amend the BMP Plan whenever the plan is found to be ineffective in achieving the general objective of preventing and minimizing the generation and the potential for the release of pollutants from the facility to waters of the U.S. Any changes to the BMP Plan must be consistent with the objectives and specific requirements listed above.

4.2.9 Specific BMPs. The BMP Plan must establish BMPs or other measures to achieve the objectives under Section 4.2.3, which ensure that the following specific requirements are met:

4.2.9.1 BMPs for Deck Drainage

Per Section 2.1.3, the permittee must develop BMPs to ensure deck drainage that is contaminated with oil and grease and other pollutants is processed through an oil-water separator, or other similar treatment process, prior to discharge

4.2.9.2 Housekeeping BMPs for Graywater

Per Section 2.3.2, permittees shall develop and implement housekeeping BMPs which ensure discharges do not contain oil (e.g., cook oils), floating solids, foam or garbage and have minimal chemical cleaning compounds and disinfection products (e.g., chlorine) through adherence with manufacturer's instructions. In addition, for discharges of graywater treated using an MSD, or other system adding chlorine, the permittee must develop and implement operation and maintenance BMPs that ensure consistent and effective dechlorination to achieve appropriate chlorine levels (e.g., less than 1.0 mg/L).

4.2.9.3 BMPs for Ballast Water Potentially Oil-Contaminated with Oil

Per Section 2.4.2, specific BMPs must be developed and implement to support the prohibition of free oil for the discharge of uncontaminated ballast water (010). Contaminated ballast water must be treated using an oil-water separator or other procedure to remove oil and grease sheen.

4.2.9.4 BMPs for Noncontact Cooling Water

Per Section 2.4.4, DEC requires that the BMP Plan include a specific BMP to optimize the use of chemicals (e.g., a chemical-dosing matrix) and to minimize the potential for chronic toxicity in discharges of noncontact cooling water (Discharge 009) that is required to monitor for chronic WET. Upon exceeding the chronic WET PR BMP Revision Action Level of 189 TU_c, the permittee must modify this specific BMP to reduce subsequent chronic toxicity to below the PR BMP Revision Action Levels. Examples of BMP revisions include, but are not limited to, revamping the chemical dosing matrix or injection practices; substitution of less

toxic chemicals; eliminating, reducing, or controlling spikes resulting from batch dosing; or alternative disposal options. BMPs must continue to be revised until the chronic WET PR BMP Revision Action Levels are attained. A failure to revise the BMP constitutes noncompliance with this section.

4.2.9.5 Methanol Correlation or Replacement in Produced Water

As discussed in Sections 2.5.3, the chronic toxicity of the produced water is anticipated to correlate with methanol given the low concentration of other pollutants. In addition, there may be other chemical additives effective in mitigating hydrate formation that imparts less chronic toxicity. A reduction in toxicity, or a correlation of toxicity to methanol, can be used by the permittee to justify less frequent chronic WET monitoring for compliance per Section 2.5.3. Given the chronic WET results obtained to date have yet to be based on observed endpoints in the dilution series tested, the permittee must develop a specific BMP Plan for conducting ongoing chronic WET monitoring for the purpose of evaluating a correlation with methanol or demonstrating a substitute for methanol imparts less toxicity than methanol. If the permittee chooses not to seek a correlation to methanol, substitution of another chemical, or a frequency reduction then this requirement is not applicable.

For correlative investigations, Section 2.5.3 provides objectives, initial dilution series, and target benchmarks for establishing an appropriate correlation (at least 20 detectable results and a correlation coefficient 0.8 or greater) for methanol to use for the purpose of frequency reduction on chronic WET monitoring for compliance. If the permittee seeks frequency reduction through correlation, a specific characterization BMP Plan must be developed and submitted to DEC for review and comment that adequately addresses the objectives and requirements of Section 2.5.3.

For demonstration of an acceptable substitution for methanol, at least one year of chronic WET data consisting of 10 results with observed endpoints must be available to compare to the chronic toxicity of a substitute. The number of discrete data points for the substitute needed to demonstrate it is less toxic will be based on application of a variability multiplier (i.e., reasonable potential multiplier discussed in Fact Sheet, Appendix B). The permittee may request a substitution and a frequency reduction to quarterly once the multiplied results (10 minimum) are less than the highest reported chronic toxicity for methanol laden produced water in two consecutive tests. If the permittee seeks frequency reduction through correlation, a specific characterization BMP Plan must be developed and submitted to DEC for review and comment that adequately addresses the objectives described in this paragraph. The BMP Plan may include components of the QAPP required per Section 4.1 so long as it is appropriately labeled in the BMP Plan.

4.2.9.6 Treatment Systems Standard Operating Procedures

The permittee must develop Standard Operating Procedures for the following three treatment systems:

4.2.9.6.1 Domestic Wastewater

For discharges of domestic wastewater, the permittee must develop and implement operation and maintenance SOPs per Section 2.2.3 that ensure consistent and effective removal of BOD5and TSS to minimum treatment standards per 18 AAC 72.050 as well as chlorination for bacteria destruction followed by dechlorination to achieve appropriate chlorine levels.

4.2.9.6.2 Domestic Graywater

For discharges of graywater treated using an MSD, or other system adding chlorine, the permittee must develop and implement operation and maintenance SOPs per Section 2.3.3 that ensure primary treatment for BOD_5 and TSS consistent with any waiver to minimum treatment issued by DEC and effective bacteria destruction using chlorine followed by dechlorination to achieve appropriate chlorine levels (e.g., less than 1.0 mg/L).

4.2.9.6.3 Produced Water

For discharges of produced water using separation followed by two-stage separation, the permittee must develop SOPs per Section 2.5.4 for the treatment system to ensure compliance with permit limits. The SOPs must include modes of operation (parallel versus series), operation and maintenance, troubleshooting, contingency modifications (added flotation to separation), prediction and monitoring of carbon exhaustion

4.2.9.7 BMPs for Cooling Water Intake Structures

This Permit incorporates 40 CFR Part 125, Subpart N the updated in 2014 and adopted by reference at 18 AAC 83.010(c)(9) for cooling water intake structures (CWIS) that requires new offshore oil and gas facilities to take measures to reduce entrainment and impingement of aquatic life associated with the construction and operation of CWIS. The CWIS regulation was promulgated to ensure that the location, design, construction, operation and capacity of CWIS reflect the best technology available to minimize adverse impacts to aquatic organisms.

The CWIS regulations apply to all facilities, new or existing, that are a point source discharge, intake 2 million gallons per day of water, and use at least 25 percent of that water for cooling. Per CWIS regulations, the owner or operator of a new offshore oil and gas extraction facility must comply with: (i) Track I in 40 CFR Part 125.134(b) or Track II in 40 CFR Part 125.134(c) if it is a fixed facility; or (ii) Track I in 40 CFR Part 125.134(b) if it is not a fixed facility (i.e., MODU).

This Permit requires the permittee to select and implement technologies or operational measures to minimize impingement mortality and entrainment of fish and shellfish and include this information in the BMP Plan. The BMP Plan requirement gives the permittee discretion on what methods to select and how to implement those methods. However, the Department retains the authority to impose more stringent conditions on a case-by-case basis, if such conditions are deemed necessary by the Department to comply with any provision of law in accordance with this Permit. Specifically, DEC can require the implementation of additional technologies and operational measures if there is potential for specified aquatic organisms to pass through the hydraulic zone of influence of the MODU cooling water intake structure.

APPENDIX A

Standard Conditions

APPENDIX A

STANDARD CONDITIONS

APDES PERMIT

NONDOMESTIC DISCHARGES

September 2011

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Appendix A of the permit contains standard regulatory language that must be included in all APDES permits. These requirements are based on the regulations and cannot be challenged in the context of an individual APDES permit action. The standard regulatory language covers requirements such as monitoring, recording, reporting requirements, compliance responsibilities, and other general requirements. Appendix A, Standard Conditions is an integral and enforceable part of the permit. Failure to comply with a Standard Condition in this Appendix constitutes a violation of the permit and is subject to enforcement.

1.0 Standard Conditions Applicable to All Permits

1.1 Contact Information and Addresses

1.1.1 Permitting Program

Documents, reports, and plans required under the permit and Appendix A are to be sent to the following address:

State of Alaska
Department of Environmental Conservation
Division of Water
Wastewater Discharge Authorization Program
555 Cordova Street
Anchorage, Alaska 99501
Telephone (907) 269-6285
Fax (907) 269-3487
Email: DEC.Water.WQPermit@alaska.gov

1.1.2 Compliance and Enforcement Program

Documents and reports required under the permit and Appendix A relating to compliance are to be sent to the following address:

State of Alaska
Department of Environmental Conservation
Division of Water
Compliance and Enforcement Program
555 Cordova Street
Anchorage, Alaska 99501
Telephone Nationwide (877) 569-4114
Anchorage Area / International (907) 269-4114
Fax (907) 269-4604
Email: dec-wqreporting@alaska.gov

1.2 Duty to Comply

A permittee shall comply with all conditions of the permittee's APDES permit. Any permit noncompliance constitutes a violation of 33 U.S.C 1251-1387 (Clean Water Act) and state law and is grounds for enforcement action including termination, revocation and reissuance, or modification of a permit, or denial of a permit renewal application. A permittee shall comply with effluent standards or prohibitions established under 33 U.S.C. 1317(a) for toxic pollutants within the time provided in the regulations that establish those effluent standards or prohibitions even if the permit has not yet been modified to incorporate the requirement.

1.3 Duty to Reapply

If a permittee wishes to continue an activity regulated by this permit after its expiration date, the permittee must apply for and obtain a new permit. In accordance with 18 AAC 83.105(b), a permittee with a currently effective permit shall reapply by submitting a new application at least 180 days before the existing permit expires, unless the Department has granted the permittee permission to submit an application on a later date. However, the Department will not grant permission for an application to be submitted after the expiration date of the existing permit.

1.4 Need to Halt or Reduce Activity Not a Defense

In an enforcement action, a permittee may not assert as a defense that compliance with the conditions of the permit would have made it necessary for the permittee to halt or reduce the permitted activity.

1.5 Duty to Mitigate

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

1.6 Proper Operation and Maintenance

1.6.1 A permittee shall at all times properly operate and maintain all facilities and systems of treatment and control and related appurtenances that the permittee installs or uses to achieve compliance with the conditions of the permit. The permittee's duty to operate and maintain properly includes using adequate laboratory controls and appropriate quality assurance procedures. However, a permittee is not required to operate back-up or auxiliary facilities or similar systems that a permittee installs unless operation of those facilities is necessary to achieve compliance with the conditions of the permit.

1.6.2 Operation and maintenance records shall be retained and made available at the site.

1.7 Permit Actions

A permit may be modified, revoked and reissued, or terminated for cause as provided in 18 AAC 83.130. If a permittee files a request to modify, revoke and reissue, or terminate a permit, or gives notice of planned changes or anticipated noncompliance, the filing or notice does not stay any permit condition.

1.8 Property Rights

A permit does not convey any property rights or exclusive privilege.

1.9 Duty to Provide Information

A permittee shall, within a reasonable time, provide to the Department any information that the Department requests to determine whether a permittee is in compliance with the permit, or whether cause exists to modify, revoke and reissue, or terminate the permit. A permittee shall also provide to the Department, upon request, copies of any records the permittee is required to keep under the permit.

1.10 Inspection and Entry

A permittee shall allow the Department, or an authorized representative, including a contractor acting as a representative of the Department, at reasonable times and on presentation of credentials establishing authority and any other documents required by law, to:

1.10.1 Enter the premises where a permittee's regulated facility or activity is located or conducted, or where permit conditions require records to be kept;

1.10.2 Have access to and copy any records that permit conditions require the permittee to keep;

1.10.3 Inspect any facilities, equipment, including monitoring and control equipment, practices, or operations regulated or required under a permit; and

1.10.4 Sample or monitor any substances or parameters at any location for the purpose of assuring permit compliance or as otherwise authorized by 33 U.S.C. 1251-1387 (Clean Water Act).

1.11 Monitoring and Records

A permittee must comply with the following monitoring and recordkeeping conditions:

1.11.1 Samples and measurements taken for the purpose of monitoring must be representative of the monitored activity.

1.11.2 The permittee shall retain records in Alaska of all monitoring information for at least three years, or longer at the Department's request at any time, from the date of the sample, measurement, report, or application. Monitoring records required to be kept include:

1.11.2.1 All calibration and maintenance records,

1.11.2.2 All original strip chart recordings or other forms of data approved by the Department for continuous monitoring instrumentation,

1.11.2.3 All reports required by a permit,

1.11.2.4 Records of all data used to complete the application for a permit,

1.11.2.5 Field logbooks or visual monitoring logbooks,

1.11.2.6 Quality assurance chain of custody forms,

1.11.2.7 Copies of discharge monitoring reports, and

1.11.2.8 A copy of this APDES permit.

1.11.3 Records of monitoring information must include:

1.11.3.1 The date, exact place, and time of any sampling or measurement;

1.11.3.2 The name(s) of any individual(s) who performed the sampling or measurement(s);

1.11.3.3 The date(s) and time any analysis was performed;

1.11.3.4 The name(s) of any individual(s) who performed any analysis;

1.11.3.5 Any analytical technique or method used; and

1.11.3.6 The results of the analysis.

1.11.4 Monitoring Procedures

Analyses of pollutants must be conducted using test procedures approved under 40 CFR Part 136, adopted by reference at 18 AAC 83.010, for pollutants with approved test procedures, and using test procedures specified in the permit for pollutants without approved methods.

1.12 Signature Requirement and Penalties

1.12.1 Any application, report, or information submitted to the Department in compliance with a permit requirement must be signed and certified in accordance with 18 AAC 83.385. Any person who knowingly makes any false material statement, representation, or certification in any application, record, report, or other document filed or required to be maintained under a permit, or who knowingly falsifies, tampers with, or renders inaccurate any monitoring device or method required to be maintained under this permit shall, upon conviction, be subject to penalties under 33 U.S.C. 1319(c)(4), AS 12.55.035(c)(1)(B), (c)(2) and (c)(3), and AS 46.03.790(g).

1.12.2 In accordance with 18 AAC 83.385, an APDES permit application must be signed as follows:

1.12.2.1 For a corporation, a responsible corporate officer shall sign the application; in this subsection, a responsible corporate officer means:

1.12.2.1.1 A president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy- or decision-making functions for the corporation; or

1.12.2.1.2 The manager of one of more manufacturing, production, or operating facilities, if

1.12.2.1.2.1 The manager is authorized to make management decisions that govern the operation of the regulated facility, including having the explicit or implicit duty of making major capital investment recommendations, and initiating and directing other comprehensive measures to assure long term environmental compliance with environmental statutes and regulations;

1.12.2.1.2.2 The manager can ensure that the necessary systems are established or actions taken to gather complete and accurate information for permit application requirements; and

1.12.2.1.2.3 Authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures.

1.12.2.2 For a partnership or sole proprietorship, by the general partner or the proprietor, respectively, shall sign the application

1.12.2.3 For a municipality, state, federal, or other public agency, either a principal executive officer or ranking elected official shall sign the application; in this subsection, a principal executive officer of an agency means:

1.12.2.3.1 The chief executive officer of the agency; or

1.12.2.3.2 A senior executive officer having responsibility for the overall operations of a principal geographic unit or division of the agency.

1.12.3 Any report required by an APDES permit, and a submittal with any other information requested by the Department, must be signed by a person described in Appendix A, Part 1.12.2, or by a duly authorized representative of that person. A person is a duly authorized representative only if:

1.12.3.1 The authorization is made in writing by a person described in Appendix A, Part 1.12.2;

1.12.3.2 The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity, including the position of plant manager, operator of a well or a well field, superintendent, or position of equivalent responsibility; or an individual or position having overall responsibility for environmental matters for the company; and

1.12.3.3 The written authorization is submitted to the Department to the Permitting Program address in Appendix A, Part 1.1.1.

1.12.4 If an authorization under Appendix A, Part 1.12.3 is no longer effective because a different individual or position has responsibility for the overall operation of the facility, a new authorization satisfying the requirements of Appendix A, Part 1.12.3 must be submitted to the Department before or together with any report, information, or application to be signed by an authorized representative.

1.12.5 Any person signing a document under Appendix A, Part 1.12.2 or Part 1.12.3 shall certify as follows:

"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."

1.13 Proprietary or Confidential Information

1.13.1 A permit applicant or permittee may assert a claim of confidentiality for proprietary or confidential business information by stamping the words “confidential business information” on each page of a submission containing proprietary or confidential business information. The Department will treat the stamped submissions as confidential if the information satisfies the test in 40 CFR §2.208, adopted by reference at 18 AAC 83.010, and is not otherwise required to be made public by state law.

1.13.2 A claim of confidentiality under Appendix A, Part 1.13.1 may not be asserted for the name and address of any permit applicant or permittee, a permit application, a permit, effluent data, sewage sludge data, and information required by APDES or NPDES application forms provided by the Department, whether submitted on the forms themselves or in any attachments used to supply information required by the forms.

1.13.3 A permittee’s claim of confidentiality authorized under Appendix A, Part 1.13.1 is not waived if the Department provides the proprietary or confidential business information to the EPA or to other agencies participating in the permitting process. The Department will supply any information obtained or used in the administration of the state APDES program to the EPA upon request under 40 CFR §123.41, as revised as of July 1, 2005. When providing information submitted to the Department with a claim of confidentiality to the EPA, the Department will notify the EPA of the confidentiality claim. If the Department provides the EPA information that is not claimed to be confidential, the EPA may make the information available to the public without further notice.

1.14 Oil and Hazardous Substance Liability

Nothing in this permit shall be construed to preclude the institution of any action or relieve a permittee

from any responsibilities, liabilities, or penalties to which the permittee is or may be subject to under state laws addressing oil and hazardous substances.

1.15 Cultural and Paleontological Resources

If cultural or paleontological resources are discovered because of this disposal activity, work that would disturb such resources is to be stopped, and the Office of History and Archaeology, a Division of Parks and Outdoor Recreation of the Alaska Department of Natural Resources (http://www.dnr.state.ak.us/parks/oha/), is to be notified immediately at (907) 269-8721.

1.16 Fee

A permittee must pay the appropriate permit fee described in 18 AAC 72.

1.17 Other Legal Obligations

This permit does not relieve the permittee from the duty to obtain any other necessary permits from the Department or from other local, state, or federal agencies and to comply with the requirements contained in any such permits. All activities conducted and all plan approvals implemented by the permittee pursuant to the terms of this permit shall comply with all applicable local, state, and federal laws and regulations.

2.0 Special Reporting Obligations

2.1 Planned Changes

2.1.1 The permittee shall give notice to the Department as soon as possible of any planned physical alteration or addition to the permitted facility if:

2.1.1.1 The alteration or addition may make the facility a "new source" under one or more of the criteria in 18 AAC 83.990(44); or

2.1.1.2 The alteration or addition could significantly change the nature or increase the quantity of pollutants discharged if those pollutants are not subject to effluent limitations in the permit or to notification requirements under 18 AAC 83.610.

2.1.2 If the proposed changes are subject to plan review, then the plans must be submitted at least 30 days before implementation of changes (see 18 AAC 15.020 and 18 AAC 72 for plan review requirements). Written approval is not required for an emergency repair or routine maintenance.

2.1.3 Written notice must be sent to the Permitting Program address in Appendix A, Part 1.1.1.

2.2 Anticipated Noncompliance

2.2.1 A permittee shall give seven days' notice to the Department before commencing any planned change in the permitted facility or activity that may result in noncompliance with permit requirements.

2.2.2 Written notice must be sent to the Compliance and Enforcement Program address in Appendix A, Part 1.1.2.

2.3 Transfers

2.3.1 A permittee may not transfer a permit for a facility or activity to any person except after notice to the Department in accordance with 18 AAC 83.150. The Department may modify or revoke and reissue the permit to change the name of the permittee and incorporate such other requirements under 33 U.S.C. 1251-1387 (Clean Water Act) or state law.

2.3.2 Written notice must be sent to the Permitting Program address in Appendix A, Part 1.1.1.

2.4 Compliance Schedules

2.4.1 A permittee must submit progress or compliance reports on interim and final requirements in any compliance schedule of a permit no later than 14 days following the scheduled date of each requirement.

2.4.2 Written notice must be sent to the Compliance and Enforcement Program address in Appendix A, Part 1.1.2.

2.5 Corrective Information

2.5.1 If a permittee becomes aware that it failed to submit a relevant fact in a permit application or submitted incorrect information in a permit application or in any report to the Department, the permittee shall promptly submit the relevant fact or the correct information.

2.5.2 Information must be sent to the Permitting Program address in Appendix A, Part 1.1.1.

2.6 Bypass of Treatment Facilities

2.6.1 Prohibition of Bypass

Bypass is prohibited. The Department may take enforcement action against a permittee for any bypass, unless:

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

2.6.1.2 There were no feasible alternatives to the bypass, including use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. However, this condition is not satisfied if the permittee, in the exercise of reasonable engineering judgment, should have installed adequate back-up equipment to prevent a bypass that occurred during normal periods of equipment downtime or preventive maintenance; and

2.6.1.3 The permittee provides notice to the Department of a bypass event in the manner, as appropriate, under Appendix A, Part 2.6.2.

2.6.2 Notice of bypass

2.6.2.1 For an anticipated bypass, the permittee submits notice at least 10 days before the date of the bypass. The Department may approve an anticipated bypass, after considering its adverse effects, if the Department determines that it will meet the conditions of Appendix A, Parts 2.6.1.1 and 2.6.1.2.

2.6.2.2 For an unanticipated bypass, the permittee submits 24-hour notice, as required in 18 AAC 83.410(f) and Appendix A, Part 3.4, Twenty-four Hour Reporting.

2.6.2.3 Written notice must be sent to the Compliance and Enforcement Program address in Appendix A, Part 1.1.2.

2.6.3 Notwithstanding Appendix A, Part 2.6.1, a permittee may allow a bypass that:

2.6.3.1 Does not cause an effluent limitation to be exceeded, and

2.6.3.2 Is for essential maintenance to assure efficient operation.

2.7 Upset Conditions

2.7.1 In any enforcement action for noncompliance with technology-based permit effluent limitations, a permittee may claim upset as an affirmative defense. A permittee seeking to establish the occurrence of an upset has the burden of proof to show that the requirements of Appendix A, Part 2.7.2 are met.

2.7.2 To establish the affirmative defense of upset, the permittee must demonstrate, through properly signed, contemporaneous operating logs or other relevant evidence that:

2.7.2.1 An upset occurred and the permittee can identify the cause or causes of the upset;

2.7.2.2 The permitted facility was at the time being properly operated;

2.7.2.3 The permittee submitted 24-hour notice of the upset, as required in 18 AAC 83.410(f) and Appendix A, Part 3.4, Twenty-four Hour Reporting; and

2.7.2.4 The permittee complied with any mitigation measures required under 18 AAC 83.405(e) and Appendix A, Part 1.5, Duty to Mitigate.

2.7.3 Any determination made in administrative review of a claim that noncompliance was caused by upset, before an action for noncompliance is commenced, is not final administrative action subject to judicial review.

2.8 Existing Manufacturing, Commercial, Mining, and Silvicultural Discharges

2.8.1 In addition to the reporting requirements under 18 AAC 83.410, an existing manufacturing, commercial, mining, and silvicultural discharger shall notify the Department as soon as that discharger knows or has reason to believe that any activity has occurred or will occur that would result in:

2.8.1.1 The discharge, on a routine or frequent basis, of any toxic pollutant that is not limited in the permit, if that discharge will exceed the highest of the following notification levels:

2.8.1.1.1 One hundred micrograms per liter (100 µg/L);

2.8.1.1.2 Two hundred micrograms per liter (200 µg/L) for acrolein and acrylonitrile, 500 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;

2.8.1.1.3 Five times the maximum concentration value reported for that pollutant in the permit application in accordance with 18 AAC 83.310(c)-(g); or

2.8.1.1.4 The level established by the Department in accordance with 18 AAC 83.445.

2.8.1.2 Any discharge, on a non-routine or infrequent basis, of a toxic pollutant that is not limited in the permit, if that discharge will exceed the highest of the following notification levels:

2.8.1.2.1 Five hundred micrograms per liter (500 µg/L);

2.8.1.2.2 One milligram per liter (1 mg/L) for antimony;

2.8.1.2.3 Ten times the maximum concentration value reported for that pollutant in the permit application in accordance with 18 AAC 83.310(c)-(g); or

2.8.1.2.4 The level established by the Department in accordance with 18 AAC 83.445.

3.0 Monitoring, Recording, and Reporting Requirements

3.1 Representative Sampling

A permittee must collect effluent samples from the effluent stream after the last treatment unit before discharge into the receiving waters. Samples and measurements must be representative of the volume and nature of the monitored activity or discharge.

3.2 Reporting of Monitoring Results

At intervals specified in the permit, monitoring results must be reported on the EPA discharge monitoring report (DMR) form, as revised as of March 1999, adopted by reference.

3.2.1 Monitoring results shall be summarized each month on the DMR or an approved equivalent report. The permittee must submit reports monthly postmarked by the 15th day of the following month.

3.2.2 The permittee must sign and certify all DMRs and all other reports in accordance with the requirements of Appendix A, Part 1.12, Signatory Requirements and Penalties. All signed and certified legible original DMRs and all other documents and reports must be submitted to the Department at the Compliance and Enforcement Program address in Appendix A, Part 1.1.2.

3.2.3 If, during the period when this permit is effective, the Department makes available electronic reporting, the permittee may, as an alternative to the requirements of Appendix A, Part 3.2.2, submit monthly DMRs electronically by the 15th day of the following month in accordance with guidance provided by the Department. The permittee must certify all DMRs and other reports, in accordance with the requirements of Appendix A, Part 1.12, Signatory Requirements and Penalties. The permittee must retain the legible originals of these documents and make them available to the Department upon request.

3.3 Additional Monitoring by Permittee

If the permittee monitors any pollutant more frequently than the permit requires using test procedures approved in 40 CFR Part 136, adopted by reference at 18 AAC 83.010, or as specified in this permit, the results of that additional monitoring must be included in the calculation and reporting of the data submitted in the DMR required by Appendix A, Part 3.2. All limitations that require averaging of measurements must be calculated using an arithmetic means unless the Department specifies another method in the permit. Upon request by the Department, the permittee must submit the results of any other sampling and monitoring regardless of the test method used.

3.4 Twenty-four Hour Reporting

A permittee shall report any noncompliance event that may endanger health or the environment as follows:

3.4.1 A report must be made:

3.4.1.1 Orally within 24 hours after the permittee becomes aware of the circumstances, and

3.4.1.2 In writing within five days after the permittee becomes aware of the circumstances.

3.4.2 A report must include the following information:

3.4.2.1 A description of the noncompliance and its causes, including the estimated volume or weight and specific details of the noncompliance;

3.4.2.2 The period of noncompliance, including exact dates and times;

3.4.2.3 If the noncompliance has not been corrected, a statement regarding the anticipated time the noncompliance is expected to continue; and

3.4.2.4 Steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance.

3.4.3 An event that must be reported within 24 hours includes:

3.4.3.1 An unanticipated bypass that exceeds any effluent limitation in the permit (see Appendix A, Part 2.6, Bypass of Treatment Facilities).

3.4.3.2 An upset that exceeds any effluent limitation in the permit (see Appendix A, Part 2.7, Upset Conditions).

3.4.3.3 A violation of a maximum daily discharge limitation for any of the pollutants listed in the permit as requiring 24-hour reporting.

3.4.4 The Department may waive the written report on a case-by-case basis for reports under Appendix A, Part 3.4 if the oral report has been received within 24 hours of the permittee becoming aware of the noncompliance event.

3.4.5 The permittee may satisfy the written reporting submission requirements of Appendix A, Part 3.4 by submitting the written report via e-mail, if the following conditions are met:

3.4.5.1 The Noncompliance Notification Form or equivalent form is used to report the noncompliance;

3.4.5.2 The written report includes all the information required under Appendix A, Part 3.4.2;

3.4.5.3 The written report is properly certified and signed in accordance with Appendix A, Parts 1.12.3 and 1.12.5.;

3.4.5.4 The written report is scanned as a PDF (portable document format) document and transmitted to the Department as an attachment to the e-mail; and

3.4.5.5 The permittee retains in the facility file the original signed and certified written report and a printed copy of the conveying email.

3.4.6 The e-mail and PDF written report will satisfy the written report submission requirements of this permit provided the e-mail is received by the Department within five days after the time the permittee becomes aware of the noncompliance event and the e-mail and written report satisfy the criteria of Part 3.4.5. The e-mail address to report noncompliance is: dec-wqreporting@alaska.gov

3.5 Other Noncompliance Reporting

A permittee shall report all instances of noncompliance not required to be reported under Appendix A, Parts 2.4 (Compliance Schedules), 3.3 (Additional Monitoring by Permittee), and 3.4 (Twenty-four Hour Reporting) at the time the permittee submits monitoring reports under Appendix A, Part 3.2 (Reporting of Monitoring Results). A report of noncompliance under this part must contain the information listed in Appendix A, Part 3.4.2 and be sent to the Compliance and Enforcement Program address in Appendix A, Part 1.1.2.

4.0 Penalties for Violations of Permit Conditions

Alaska laws allow the State to pursue both civil and criminal actions concurrently. The following is a summary of Alaska law. Permittees should read the applicable statutes for further substantive and procedural details.

4.1 Civil Action

Under AS 46.03.760(e), a person who violates or causes or permits to be violated a regulation, a lawful order of the Department, or a permit, approval, or acceptance, or term or condition of a permit, approval or acceptance issued under the program authorized by AS 46.03.020 (12) is liable, in a civil action, to the State for a sum to be assessed by the court of not less than $500 nor more than $100,000 for the initial violation, nor more than $10,000 for each day after that on which the violation continues, and that shall reflect, when applicable:

4.1.1 Reasonable compensation in the nature of liquated damages for any adverse environmental effects caused by the violation, that shall be determined by the court according to the toxicity, degradability, and dispersal characteristics of the substance discharged, the sensitivity of the receiving environment, and the degree to which the discharge degrades existing environmental quality;

4.1.2 Reasonable costs incurred by the State in detection, investigation, and attempted correction of the violation;

4.1.3 The economic savings realized by the person in not complying with the requirements for which a violation is charged; and

4.1.4 The need for an enhanced civil penalty to deter future noncompliance.

4.2 Injunctive Relief

4.2.1 Under AS 46.03.820, the Department can order an activity presenting an imminent or present danger to public health or that would be likely to result in irreversible damage to the environment be discontinued. Upon receipt of such an order, the activity must be immediately discontinued.

4.2.2 Under AS 46.03.765, the Department can bring an action in Alaska Superior Court seeking to enjoin ongoing or threatened violations for Department-issued permits and Department statutes and regulations.

4.3 Criminal Action

Under AS 46.03.790(h), a person is guilty of a Class A misdemeanor if the person negligently:

4.3.1 Violates a regulation adopted by the Department under AS 46.03.020(12);

4.3.2 Violates a permit issued under the program authorized by AS 46.03.020(12);

4.3.3 Fails to provide information or provides false information required by a regulation adopted under AS 46.03.020(12);

4.3.4 Makes a false statement, representation, or certification in an application, notice, record, report, permit, or other document filed, maintained, or used for purposes of compliance with a permit issued under or a regulation adopted under AS 46.03.020(12); or

4.3.5 Renders inaccurate a monitoring device or method required to be maintained by a permit issued or under a regulation adopted under AS 46.03.020(12).

4.4 Other Fines

Upon conviction of a violation of a regulation adopted under AS 46.03.020(12), a defendant who is not an organization may be sentenced to pay a fine of not more than $10,000 for each separate violation (AS 46.03.790(g)). A defendant that is an organization may be sentenced to pay a fine not exceeding the greater of: (1) $200,00; (2) three times the pecuniary gain realized by the defendant as a result of the offense; or (3) three times the pecuniary damage or loss caused by the defendant to another, or the property of another, as a result of the offense (AS 12.55.035(c)(B), (c)(2), and (c)(3)).

APPENDIX B

Acronyms

The following acronyms are common terms that may be found in an Alaska Pollutant Discharge Elimination System (APDES) permit.

18 AAC 15	Alaska Administrative Code. Title 18 Environmental Conservation, Chapter 15: Administrative Procedures
18 AAC 60	Alaska Administrative Code. Title 18 Environmental Conservation, Chapter 60: Solid Waste Management
18 AAC 70	Alaska Administrative Code. Title 18 Environmental Conservation, Chapter 70: Water Quality Standards
18 AAC 72	Alaska Administrative Code. Title 18 Environmental Conservation, Chapter 72: Wastewater Disposal
18 AAC 83	Alaska Administrative Code. Title 18 Environmental Conservation, Chapter 83: Alaska Pollutant Discharge Elimination System

All chapters of Alaska Administrative Code, Title 18 are available at the Alaska Administrative Code database http://www.legis.state.ak.us/cgi-bin/folioisa.dll/aac

40 CFR	Code of Federal Regulations Title 40: Protection of Environment
AAC	Alaska Administrative Code
ACR	Acute to Chronic Ratio
ADF&G	Alaska Department of Fish and Game
ADNR	Alaska Department of Natural Resources
AML	Average Monthly Limit
APDES	Alaska Pollutant Discharge Elimination System
API	American Petroleum Institute
AS	Alaska Statutes
AS 46.03	Alaska Statutes Title 46, Chapter 03: Environmental Conservation. Available at http://www.legis.state.ak.us/default.htm
AMSA	Area Meriting Special Attention
ASTM	American Standard Test Methods
bbl	Barrels
bbl/d	Barrels per day
BOD_5	Biochemical Oxygen Demand, 5-day
BOP	Blowout Preventer
BMP	Best Management Practice
BPJ	Best Professional Judgment
BPT	Best Practicable Control Technology (currently available)

BTUs	British Thermal Units or Biological Treatment Units
CFR	Code of Federal Regulations
CHA	Critical Habitat Area
CIE	Cook Inlet Energy
CORMIX	Cornell Mixing Zone Model
COST	Continental Outer Stratigraphic Test
CPF	Central Production Facility
CWA	Clean Water Act
CWIS	Cooling water intake structures
DEC	Alaska Department of Environmental Conservation
DFP	Drilling Fluid Plan
DMR	Discharge Monitoring Report
DNR	Alaska Department of Natural Resources
DOG	Division of Oil and Gas
EFH	Essential Fish Habitat
ELGs	Effluent Limitation Guidelines
EMAP	Environmental Monitoring and Assessment Program
EMP	Environmental Monitoring Program
EOP	End-of-Project
EOW	End-of-Well
EC	Enterococci Bacteria
EC_{25}	25 Percent Effect Concentration
EPA	U.S. Environmental Protection Agency
ESA	Endangered Species Act
FC	Fecal Coliform Bacteria
Furie GPF	Furie Gas Production Facility
FWS	Fish and Wildlife Service
GAC	Granular Activated Carbon
GC	Gas Chromatography
GP	General Permit
gpd	Gallons per Day
gpd-c	Gallans per Day per Capita

HDD	Horizontal Directional Drilling
IC_{25}	25 Percent Inhibition Concentration
ICIEMAP	Integrated Cook Inlet Monitoring and Assessment Program
ICIS	Integrated Compliance Information System
KABATA	Knik Arm Bridge and Toll Authority
KCl	Potassium Chloride
KLU	Kitchen Lights Unit
lbs	Pounds
LC_{50}	50 Percent Lethal Concentration
LNG	Liquefied Natural Gas
M10	Facilities continuously staffed with 10 or more people
M9IM	Facilities that are intermittently staffed or have a regular staff of nine or fewer people
MDL	Maximum Daily Limit
mg	Million Gallons
mgd	Million Gallons Per Day
mg/kg	Milligrams per Kilogram
mg/L	Milligrams per Liter
MS	Mass Spectrometry
µg/L	Micrograms per Liter
MGS	Middle Ground Shoal
MODU	Mobile Offshore Drilling Unit
MZ	Mixing Zone
NAF	Non-aqueous Fluid
NMFS	National Marine Fisheries Service
NOAA	National Oceanographic and Atmospheric Administration
NOEC	No Observed Effects Concentration
NOI	Notice of Intent
NPDES	National Pollutant Discharge Elimination System
NTU	Nephelometric Turbidity Units
ODCE	Ocean Discharge Criteria Evaluation
OWS	Oil-Water Separator
PAH	Polynuclear Aromatic Hydrocarbons

POC	Parameter of Concern
PR	Pollution Reduction
QAPP	Quality Assurance Project Plan
RCRA	Resource Conservation and Recovery Act
RPE	Reverse Phase Extraction
SDS	Safety Data Sheets
SGR	State Game Refuge
SPP	Sediment Particulate Phase
SU	Standard Units
TAH	Total Aromatic Hydrocarbons
TAqH	Total Aqueous Hydrocarbons
TBELs	Technology Based Effluent Limits
TMDL	Total Maximum Daily Load
TBPF	Trading Bay Production Facility
TIE	Toxicity Identification Evaluation
TRC	Total Residual Chlorine
TRE	Toxicity Reduction Evaluation
TSS	Total Suspended Solids
TU_c	Chronic Toxicity Unit
UIC	Underground Injection Control
U.S.C.	United States Code
USFWS	United States Fish & Wildlife Service
WET	Whole Effluent Toxicity
WQBEL	Water Quality-based Effluent Limit
WQS	Water Quality Standards

APPENDIX C

Definitions

The following are common definitions of terms associated with APDES permits. Not all the terms listed may appear in a permit. Consult the footnote references for a complete list of terms and definitions.

Alaska Pollutant Discharge Elimination System (APDES)[a]	Means the state's program, approved by EPA under 33 U.S.C. 1342(b), for issuing, modifying, revoking and reissuing, terminating, monitoring and enforcing permits and imposing and enforcing pretreatment requirements under 33 U.S.C. 1317, 1328, 1342, and 1345
Annual	Means once per calendar year
Average	Means an arithmetic mean obtained by adding quantities and dividing the sum by the number of quantities
Average Monthly Limitation[a]	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 for that month.
Ballast Water	Means harbor or seawater added or removed to maintain the proper ballast floater level and ship draft or to preload legs of a jack-up rig to secure it to the seafloor.
Best Management Practices (BMPs)[a]	Means schedules of activities, prohibitions of practices, maintenance procedures, and other management practices to prevent or reduce the pollution of waters of the United States. BMPs also include treatment requirements, operating procedures, and practices to control plant site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw material storage areas.
Bilge Water	Means water which collects in the lower internal parts of a drill rig or drilling vessel hull.
Biochemical Oxygen Demand (BOD)[c]	Means the amount, in milligrams per liter, of oxygen used in the biochemical oxidation of organic matter in five days at 20º C
Biocide	Means any chemical agent used for controlling the growth of or destroying nuisance organisms (e.g., bacteria, algae, and fungi).

Blowout Preventer Fluid	Means fluid used to actuate hydraulic equipment on the blowout preventer.
Boiler Blowdown	Means the discharge of water and minerals drained from boiler drums.
Bypass[a]	Means the intentional diversion of waste streams from any portion of a treatment facility
Categorical Sum	The term categorical sum refers to the summation of methodology MDLs that are unique within a suite of analytes, i.e. no duplications of methodologies.
Clean Water Act (CWA)[a]	Means the federal law codified at 33 U.S.C. 1251-1387, also referred to as the Federal Water Pollution Control Act or Federal Water Pollution Control Act Amendments of 1972
Coastal	Means any location in or on a water of the United States landward of the inner boundary of the territorial seas.
Color[b]	Means the condition that results in the visual sensations of hue and intensity as measured after turbidity is removed
Commissioner[a]	Means the commissioner of the Alaska Department of Environmental Conservation or the commissioner's designee
Composite Samples	Composite samples must consist of at least eight equal volume grab samples at equal time intervals. A 24-hour composite sample means a combination of at least eight discrete samples of equal volume collected at equal time intervals over a 24-hour period at the same location. A "flow proportional composite" sample means a combination of at least eight discrete samples collected at equal time intervals over a 24-hour period with each sample volume proportioned according to the flow volume. The sample aliquots must be collected and stored in accordance with procedures prescribed in the most recent edition of Standard Methods for the Examination of Water and Wastewater.
Contact Recreation[b]	Means activities in which there is direct and intimate contact with water. Contact recreation includes swimming, diving, and water skiing. Contact recreation does not include wading.
Cooling Water	Means once-through noncontact cooling water or circulating noncontact cooling water that is discharge to accommodate make-up cooling water intake.
Criterion[b]	Means a set concentration or limit of a water quality parameter that, when not exceeded, will protect an organism, a population of organisms, a community of organisms, or a prescribed water use with a reasonable degree of safety. A criterion might be a narrative statement instead of a numerical concentration or limit.
Daily Discharge[a]	Means the discharge of a pollutant measured during a calendar day or any 24-hour period that reasonably and consistently (e.g., measured at approximately the same time each day) represents the calendar day for the purposes of sampling. For pollutants measured in units of mass, the "daily discharge" is calculated as the total mass of the pollutant discharged over the day. For pollutants with a limitation 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 platform washings, deck washings, spillage, rainwater, melt water, and runoff from curbs, gutters, and drains including drip pans and work areas within facilities subject to this permit.
Departmenta	Means the Alaska Department of Environmental Conservation
Desalination Waste	Means wastewater associated with the process of creating fresh water from seawater.
Development Facility	Means operations that are engaged in the drilling and completion of production wells. These operations may occur prior to or simultaneously with production operations.
Diesel Oil	Means the grade of distillate fuel oil, as specified in the American Society for Testing and Materials Standard Specification for Diesel Fuel Oils D975-91 that is typically used as the continuous phase in conventional oil-based drilling fluids. For the purpose of this permit, “diesel oil” includes the fuel oil present at the facility.
Design Flow[a]	Means the wastewater flow rate that the plant was designed to handle
Director[a]	Means the commissioner or the commissioner’s designee assigned to administer the APDES program or a portion of it, unless the context identifies an EPA director
Discharge[a]	When used without qualification, discharge means the discharge of a pollutant
Discharge of a Pollutant[a]	Means any addition of any pollutant or combination of pollutants to waters of the United States from any point source or to waters of the contiguous zone or the ocean from any point source other than a vessel or other floating craft that is being used as a means of transportation. Discharge includes any addition of pollutants into waters of the United States from surface runoff that is collected or channeled by humans; discharges through pipes, sewers, or other conveyances owned by a state, municipality, or other person that do not lead to a treatment works; discharges through pipes, sewers, or other conveyances leading into privately owned treatment works; and does not include an addition of pollutants by any indirect discharger.
Domestic Wastewaterc	Means waterborne human wastes or graywater derived from dwellings, commercial buildings, institutions, or similar structures. "Domestic wastewater" includes the contents of individual removable containers used to collect and temporarily store human wastes.
Drill Cuttings	Means particles generated by drilling into subsurface geological formations and carried out from the wellbore with the drilling fluid. Examples of drill cuttings include small pieces of rock varying is size and texture from fine silt to gravel. Drill cuttings are generally generated from solids control equipment and settle out and accumulate in quiescent areas in the solids control equipment or other equipment processing drilling fluid.
Drilling Fluid	Means the circulating fluid (mud) used in the rotary drilling of wells to clean and condition the hole and to counterbalance formation pressure. The classes of drilling fluids are water-based fluid and non-aqueous drilling fluid.
Drilling Fluid System	For this Permit, drilling fluid system means a drilling fluid formulation designed specifically to perform for anticipated borehole conditions. If borehole conditions change that require a significant reformulation (e.g.,

	switching from potassium/polymer to a lignosulfate fluid), it constitutes a new drilling fluid system. In contrast, the use of an additive does not constitute a new fluid system.
EC_{25}	Means a point estimate of the toxicant concentration that would cause an observable adverse effect on a quantal, "all or nothing," response (e.g., death, immobilization, or serious incapacitation) in 25 percent of the test organisms, calculated by point estimation techniques.
Enhanced Mineral Oil	For the purposes of this permit, means a petroleum distillate which has been highly purified and is distinguished from diesel oil and conventional mineral oil in having a lower polycyclic aromatic hydrocarbon (PAH) content. Typically, conventional mineral oils have a PAH content on the order of 0.35 weight percent expressed as phenanthrene, whereas enhanced mineral oils typically have a PAH content of 0.001 or lower weight percent PAH expressed as phenenthrene.
Enhanced Mineral Oil Drilling Fluid	Means "drilling fluid" that has an enhanced mineral oil as its continuous phase with water as the dispersed phase.
Effluent[b]	Means the segment of a wastewater stream that follows the final step in a treatment process and precedes discharge of the wastewater stream to the receiving environment
Estimated	Means a way to estimate the discharge volume. Approvable estimations include, but are not limited to, the number of persons per day at the facility, volume of potable water produced per day, lift station run time, etc.
Excess Cement Slurry	Means the excess cement and wastes from equipment washdown after a cementing operation.
Excluded area	Means an area not authorized as a receiving water under a permit
Exploration Facility	For the purposes of this permit, means any fixed platform or mobile offshore drilling unit (MODU) that is engaged in the drilling of wells to determine the nature of potential hydrocarbon reservoirs. Any exploratory MODU that is not currently covered under AKG35100 – Mobile Oil and Gas Exploration Facilities in State Waters in Cook Inlet is a "new" mobile exploration facility.
Fecal Coliform Bacteria (FC)[b]	Bacteria that can ferment lactose at 44.5° + 0.2°C to produce gas in a multiple tube procedure. Fecal coliform bacteria also means all bacteria that produce blue colonies in a membrane filtration procedure within 24 ± 2 hours of incubation at 44.5° + 0.2°C in an M-FC broth.
Filter Backwash	Means wastewater generated when filters are cleaned and maintained.
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.
Fish[b]	Means any of the group of cold-blooded vertebrates that live in water and have permanent gills for breathing and fins for locomotion
Fixed Platform	A platform extending above and supported by the sea bed by means of piling, spread footings or other means with the intended purpose of remaining stationary over an extended period. For this Permit, Mobile offshore drilling units that are periodically used at or near a fixed platform for drilling

	activities including well plugging and abandonment is considered part of the fixed platform while conducting well drilling or abandonment activities.
Formation Oil	Means the oil from a producing formation which is detected in the drilling fluid, as determined by the GC/MS compliance assurance method, EPA Method 1655, when the drilling fluid is analyzed before being shipped offshore, and as determined by the RPE method, EPA Method 1670, when the drilling fluid is analyzed at the offshore point of discharge.
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.
Geometric Mean	The geometric mean is the Nth root of the product of N. All sample results of zero will use a value of 1 for calculation of the geometric mean.
Geotechnical Drilling	For the purpose of this permit means a geotechnical survey that uses riser stem technology to circulate water-based drilled fluids to the water surface for reuse.
Geotechnical Facility	For the purposes of this permit means any floating, moored, or stationary vessel, jack-up or lift barge actively conducting geotechnical surveying in open water.
Geotechnical Survey	For the purpose of this permit means any subsurface investigation that collects sediment samples to assess the structural properties of subsurface soil condition for potential placement of structures such as oil and gas production and drilling platforms, gravel islands, anchor structures for floating exploration drilling vessels, ports and harbors, and potentially buried pipeline corridors
Grab Sample	Means a single instantaneous sample collected at a particular place and time that represents the composition of wastewater only at that time and place
Graywater[c]	Means wastewater from a laundry, kitchen, sink, shower, bath, or other domestic source that does not contain excrement, urine, or combined storm water
Horizontal Direction Drilling	Drilling for the purpose of installing an underground oil or gas transmission pipeline or conduit to an onshore protection facility using a rotary drill bit that can affect the direction of the drilling path near horizontal. Horizontal Directional Drilling (HDD) for this Permit may also include discharges associated with a jack-up rig or mobile offshore drilling unit attached to the seafloor for the purpose of pulling pipe through the HDD borehole but not conducting drilling activities.
Hydrostatic Test Water	For the purposes of this permit, means water that is used to hydrotest the integrity of pipelines, tanks, or equipment. Hydrostatic test water also includes incidental water of potable water or water purposefully flushed from potable systems.
IC_{25}	Means a point estimate of the toxicant concentration that causes a 25 percent reduction (p) in a non-quantal biological measurement (e.g., reproduction or growth) calculated from a continuous model (the EPA Interpolation Method).
Influent	Means untreated wastewater before it enters the first treatment process of a

	wastewater treatment works
LC_{50}	Means the concentration of effluent that is acutely toxic to 50 percent of the test organisms exposed.
Marine Sanitation Device	Means a sanitary wastewater treatment system specifically designed to meet U.S. Coast Guard requirements.
M9IM	Means those offshore facilities continuously manned by nine (9) or fewer persons or only intermittently manned by any number of persons.
M10	Means those offshore facilities continuously manned by ten (10) or more persons.
Maintenance Waste	Means materials collected while maintaining and operating the facility, including, but not limited to, soot, machinery deposits, scraped paint, deck sweepings, wiping wastes, and rags.
Maximum Daily Limitation[a]	Means the highest allowable “daily discharge”
Mean[b]	Means the average of values obtained over a specified period and, for fecal coliform analysis, is computed as a geometric mean
Measured	Means the actual volume of wastewater discharged using appropriate mechanical or electronic equipment to provide a totalized reading. Measure does not provide a recorded measurement of instantaneous rates.
Milligrams per Liter (mg/L)[b]	Means the concentration at which one thousandth of a gram (10-3 g) is found in a volume of one liter. It is approximately equal to the unit “parts per million (ppm),” formerly of common use.
Mineral Oil	Means a class of low volatility petroleum product, generally of lower aromatic hydrocarbon content and lower toxicity than diesel oil.
Mineral Oil Pills	Means a slug of mineral circulated in the drilling fluid system in attempt to free stuck pipe. Pills generally consist of two parts; a spotting compound (also called mineral oil spots).
Mixing Zone[b]	Means a volume of water adjacent to a discharge in which wastes discharged mix with the receiving water
Mobile Offshore Drilling Unit	Mobile Offshore Drilling Units (MODUs) are semi-submersibles, drilling vessels, jack-ups rigs, submersibles, ultradeepwater units, etc that are used in drilling operations. For this Permit, MODUs that are connected to or set near a fixed facility for exploration, development, production drilling, or well plugging and abandonment are considered part of the fixed facility while connected or while the MODU is secured to the seafloor near the fixed facility.
Month	Means the time period from the 1st of a calendar month through the last day in the month
Monthly Average	Means the average of daily discharges over a monitoring month calculated as the sum of all daily discharges measured during a monitoring month divided by the number of daily discharges measured during that month
Muds, Cuttings, Cement at seafloor	Means the materials discharged at the surface of the ocean floor in the early phases of drilling operations, before the well casing is set, and during well abandonment and plugging.
New Facility	Means a facility that has not operated in the area specified in the Notice of intent (NOI) prior to the submission of the NOI.

New Source	For the purposes of this permit, means any facility or activity that initiates the process of surveying, clearing or preparing an area of the water body floor for the purpose of constructing or placing a development or production facility on or over the site after New Source Performance Standards have been promulgated. For Offshore Subcategory facilities, New Source Performance Standards were promulgated on March 4, 1993 (see 58 FR 12454). For Coastal Subcategory facilities that date was December 16, 1996 (see 61 FR 66125).
Non-aqueous drilling fluid (NAF)	Means "drilling fluid" that has water-immiscible fluid as its continuous phase and the suspending medium for solids, such as oleaginous materials (e.g., mineral oil, enhanced mineral oil, paraffinic oil, C16-C18 internal olefins, and C8-C16 fatty acid/2-ethylhexyl
Offshore	Means offshore of the inner boundary of the territorial seas.
Oil-based Drilling Fluid	Means "drilling fluid" that has diesel oil, mineral oil, or some other oil, but neither a synthetic material nor enhanced mineral oil, as its continuous phase with water as the dispersed phase.
Open waters	Means ponds, lakes, streams, rivers, and marine waters not covered by ice.
PAH	Means polynuclear aromatic hydrocarbons.
Per Day	Means through a 24-hour period.
Permittee	Means a company, organization, association, entity, or person who is issued a wastewater permit and is responsible for ensuring compliance, monitoring, and reporting as required by the permit
pH[g]	Means a measure of the hydrogen ion concentration of water or wastewater; expressed as the negative log of the hydrogen ion concentration in mg/L. A pH of 7 is neutral. A pH less than 7 is acidic, and a pH greater than 7 is basic.
Primary Treatment [c]	Means wastewater treatment that: (a) will subsequently discharge wastewater to land or waters that are not waters of the United States and substantially removes all floating and settleable solids; or uses fine screens with 0.04-inch or smaller openings; or (b) will subsequently discharge wastewater to waters of the United States and uses screening, sedimentation, and skimming adequate to remove at least 30 percent of the biochemical oxygen demanding material and of the suspended solids in the treatment works influent; and disinfection, where appropriate.
Principal Executive Officer[a]	Means the chief executive officer of the agency or a senior executive officer having responsibility for the overall operations of a principal geographic unit of division of the agency
Pollutant[a]	Means dredged spoil, solid waste, incinerator residue, filter backwash, sewage, garbage, sewage sludge, munitions, chemical wastes, biological materials, radioactive materials (except those regulated under 42 U.S.C. 2011), heat, wrecked or discarded equipment, rock, sand, cellar dirt, and industrial, municipal, or agricultural waste discharged into water
Produced Water	Means fluid extracted from a hydrocarbon reserve during development or production. The fluids is generally a mixture of oil, water and natural gas. This may include formation water, injection water, and any chemicals added downhole or during the oil/water separation process.

Production Facility	For this Permit means any mobile or fixed structure, or other structure such as subsea completion components of onshore facilities, that is either engaged in well completion or used for active recovery of hydrocarbons from producing formations. It includes well plugging and abandonment activities and hydrocarbon fluids separation even if located separately from wellheads. These operations may occur simultaneously with or following development operations.
Receiving Waterbody	Means lakes, bays, sounds, ponds, impounding reservoirs, springs, wells, rivers, streams, creeks, estuaries, marshes, inlets, straits, passages, canals, the Pacific Ocean, Gulf of Alaska, Bering Sea, and Arctic Ocean, in the territorial limits of the state, and all other bodies of surface water, natural or artificial, public or private, inland or coastal, fresh or salt, which are wholly or partially in or bordering the state or under the jurisdiction of the state. (See "Waters of the U.S." at 18 AAC 83.990(77))
Recommencing Facilities	Those facilities that may have let permit coverage lapse but still meet the coverage requirements of the Permit.
Report	In this Permit, the definition of report may include, but not be limited to, inputting results of analysis on a Discharge Monitoring Report, submit a document summarizing the results of a study or activity, or notify the Department of a triggering condition or Permit violation.
Residual Chlorine	Means chlorine remaining in water or wastewater at the end of a specified contact period as combined or free chlorine.
Responsible Corporate Officer[a]	Means a president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function or any other person who performs similar policy or decision making functions for the corporation The Responsible Corporate Officer can also be the manager of one or more manufacturing, production, or operating facilities if the requirements of 18 AAC 83.385(a)(1)(B)(i)-(iii) are met.
Secondary Recreation[b]	Means activities in which incidental water use can occur. Secondary recreation includes boating, camping, hunting, hiking, wading, and recreational fishing. Secondary contact recreation does not include fish consumption.
Severe Property Damage[a]	Means substantial physical damage to property, damage to the treatment facilities which causes them to become inoperable, or substantial and permanent loss of natural resources which can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production.
Sheen[b]	Means an iridescent appearance on the water surface
Shellfish[b]	Means a species of crustacean, mollusk, or other aquatic invertebrate with a shell or shell-like exoskeleton in any stage of its life cycle
Sidetrack Well	Means a new hole drilled from a main well to a different bottom-hole location. Also referred to as Step-out Well.
Solids Control Equipment	Means shale shakers, centrifuges, mud cleaners, and other equipment used to separate drill cuttings and/or stock barite solids from drilling fluid recovered from the wellbore.
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. Also referred to as EPA Test Method 1617.
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.
Synthetic-based Drilling Fluid	Means "drilling fluid" that has a synthetic material or a combination of synthetic materials as its continuous phase with water as the dispersed phase.
Sufficiently Sensitive Methods	Per 40 CFR 122.21(a)(3), a method approved under 40 CFR 136 is sufficiently sensitive when: (A) The method minimum level (ML) is at or below the level of the applicable water quality criterion for the measured parameter, or (B) The method ML is above the applicable water quality criterion, but the amount of the pollutant or pollutant parameter in the discharge is high enough that the method detects and quantifies the level of the pollutant or pollutant parameter in the discharge, or (C) The method has the lowest ML of the analytical methods approved under 40 CFR 136 for the measured pollutant or pollutant parameter.
Synthetic Material	As applied to synthetic-based drilling fluid means material produced by the reaction of specific purified chemical feedstock, as opposed to the traditional base fluids such as diesel and mineral oil which are derived from crude oil solely through physical separation processes.
Territorial Seas	Means the belt of the seas measured from the line of ordinary low water along that portion of the coast which is in direct contact with the open sea and the line marking the off shore limit of inland waters, and extending off shore a distance of three miles.
Test Fluid	Means the discharge that would occur should hydrocarbons be located during exploratory drilling and tested for formation pressure and content. This would consist of fluids sent downhole during testing along with water from the formation.
Total Suspended Solids (TSS)[g]	Means a measure of the filterable solids present in a sample, as determined by the method specified in 40 CFR Part 136
Twice per year	Means two time periods during the calendar year: October through April and May through September.
Upset[a]	Means an exceptional incident in which there is unintentional and temporary noncompliance with technology-based 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.
Wastewater Treatment	Means any process to which wastewater is subjected in order to remove or alter its objectionable constituents and make it suitable for subsequent use or acceptable for discharge to the environment
Water-based Drilling Fluid	Means "drilling fluid" that has water as its continuous phase and the suspending medium for solids, whether or not oil is present.
Water Depth	Means the depth of the water between the surface and the seafloor as

	measured at mean lower low water.
Waterflooding Discharges	Means discharges associated with the treatment of seawater prior to its injection into a hydrocarbon-bearing formation to improve the flow of hydrocarbons from production wells, and prior to its use in operating physical/chemical treatment units for sanitary waste. These discharges include strainer and filter backwash water.
Well Completion Fluids	Means salt solutions, weighted brines, polymers and various additives used to prevent damage to the well bore during operations which prepare the drilled well for hydrocarbon production. These fluids move into the formation and return to the surface as a slug with the produced water.
Workover Fluids	Means salt solutions, weighted brines, polymers, or other specialty additives used in a producing well to allow for maintenance, repair, or abandonment procedures. Drilling fluids used during workover operations are not considered workover fluids by definition. Packer fluids (low solid fluids between the packer, production string, and well casing) are considered to be workover fluids.
Waters of the United States or Waters of the U.S.	Has the meaning given in 18 AAC 83.990(77)
Water Recreation[b]	See contact recreation or secondary recreation
Water Supply[b]	Means any of the waters of the United States that are designated in 18 AAC 70 to be protected for fresh water or marine water uses. Water supply includes waters used for drinking, culinary, food processing, agricultural, aquacultural, seafood processing, and industrial purposes. Water supply does not necessarily mean that water in a waterbody that is protected as a supply for the uses listed in this paragraph is safe to drink in its natural state.
Week	Means the time period of Sunday through Saturday
4-day LC_{50}	A as applied to the sediment toxicity means the concentration (milligrams/kilogram dry sediment) of the drilling fluid in sediment that is lethal to 50 percent of the Leptocheirus plumulosus test organisms exposed to that concentration of the drilling fluids after four days of constant exposure.
10-day LC_{50}	As applied to the sediment toxicity means the concentration (milligrams/kilogram dry sediment) of the drilling fluid in sediment that is lethal to 50 percent of the Leptocheirus plumulosus test organisms exposed to that concentration of the drilling fluids after ten days of constant exposure.
96-hour LC_{50}	Means the concentration (parts per million) or percent of the suspended particulate phase (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.
C_{12}-C_{14} Ester and C_8 Ester	Means the fatty acid/2-ethylhexyl esters with carbon chain lengths ranging from 8 to 16 and represented by the Chemical Abstracts Service (CAS) No. 135800-37-2.
C_{16}-C_{18} Internal	Means the fatty acid/2-ethylhexyl esters with carbon chain lengths ranging

Olefin	from 8 to 16 and represented by the Chemical Abstracts Service (CAS) No. 135800-37-2.
C_{16}-C_{18} Internal Olefin Drilling Fluid	Means a C16-C18 internal olefin drilling fluid formulated as specified in Appendix 8 of subpart A of 40 CFR Part 435.
Quarterly	For this Permit, means January through March, April through June, July through August, and September through December.

a) See 18 AAC 83

b) See 18 AAC 70.990

c) See 18 AAC 72.990

d) See 40 CFR Part 136

e) See EPA Technical Support Document

f) See Standard Methods for the Examination of Water and Wastewater 18th Edition

g) See EPA Permit Writers Manual