ALASKA POLLUTANT DISCHARGE ELIMINATION SYSTEM

INDIVIDUAL PERMIT - Final

Permit Number: AK0021377

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. The

CITY OF KENAI

is authorized to discharge from the City of Kenai Wastewater Treatment Facility at Kenai, Alaska at the following location(s):

Outfall	Receiving Water or Body	Latitude	Longitude
001	Cook Inlet	60° 33' 8" N	151° 16' 40" W

In accordance with the discharge point effluent limitations, monitoring requirements, and other conditions set forth herein:

This permit and authorization shall become effective August 1, 2015

This permit and the authorization to discharge shall expire at midnight, July 31, 2020

The permittee shall reapply for a permit reissuance on or before February 1, 2020, 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.

Wade Strickland
Signature

June 30, 2015
Date

Wade Strickland
Printed Name

Program Manager
Title

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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 (Department or DEC) during the term of this permit. The permittee is responsible for all submissions and activities even if they are not summarized below.

Table 1: Schedule of Submissions

Permit Part	Submittal or Completion	Frequency	Due Date	Submit to [a]
Appendix A, 3.2	Discharge Monitoring Report (DMR)	Monthly	Must be postmarked or submitted electronically through the eDMR system, on or before the 15th day of the following month	Compliance
1.3.5	Compliance Schedule Reports	See Section 1.3	See Section 1.3	Compliance
2.1	Written notice that the Quality Assurance Project Plan (QAPP) has been developed or updated and implemented	1/permit cycle	Within 120 Days after the effective date of the final permit	Compliance
2.2.1	Written notice that the Operation and Maintenance (O&M) Plan has been developed or updated and implemented	1/permit cycle	Within 120 Days after the effective date of the final permit	Compliance
2.3	Industrial User Survey	1/permit cycle	180 days before expiration of the final permit	Permitting
1.7.5	Ambient Receiving Water Monitoring Results	1/permit cycle	180 days before expiration of the final permit	Permitting
Appendix A, 1.3	Application for Permit Reissuance	1/permit cycle	180 days before expiration of the final permit	Permitting
Appendix A, 3.4	Oral notification of noncompliance	As Necessary	Within 24 hours from the time the permittee becomes aware of the circumstances of noncompliance	Compliance
Appendix A, 3.4	Written documentation of noncompliance	As Necessary	Within 5 days after the permittee becomes aware of the circumstances	Compliance

a) See Appendix A 1.1 for addresses

1.0 LIMITATIONS AND MONITORING REQUIREMENTS

1.1 Discharge Authorization

During the effective period of this permit, the permittee is authorized to discharge pollutants from Outfall 001 specified herein to Cook Inlet, within the limits and subject to conditions set forth herein. This permit authorizes discharge of only those pollutants resulting from facility processes, waste streams, and operations clearly identified in the permit application process.

1.2 Effluent Limits and Monitoring

The permittee must limit and monitor discharges from Outfall 001 as specified in Table 2, below. All values represent maximum effluent limits, unless otherwise indicated. The permittee must comply with effluent limits in the tables at all times unless otherwise indicated, regardless of monitoring frequency or reporting required by other provisions of this permit.

1.2.1 Discharge shall not cause contamination of surface or ground waters, and shall not cause or contribute to a violation of the Alaska Water Quality Standards (Alaska Administrative Code Title 18 (18 AAC) 70) except if excursions are authorized in accordance with applicable provisions in 18 AAC 70.200 – 70.270 (e.g. variance, mixing zone).

1.2.2 The permittee must not discharge any floating solids, debris, sludge, deposits, foam, scum, or other residues that cause a film, sheen or discoloration on the surface of the receiving water or adjoining shorelines; cause leaching of toxic or 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.

1.2.3 The influent samples must be collected prior to the waste stream entering the first treatment unit of the wastewater treatment system.

1.2.4 The permittee must collect effluent samples from the effluent stream after the last treatment unit before discharge into receiving waters.

1.2.5 Influent and effluent samples must be taken over approximately the same time period.

Table 2: Outfall 001: Effluent Limits and Monitoring Requirements

		Effluent Limits				Monitoring Requirements		
Parameter	**Units [a]**	**Minimum Daily**	**Average Monthly**	**Average Weekly**	**Maximum Daily**	**Sample Location**	**Sample Frequency**	**Sample Type**
Total Discharge Flow	mgd	…..	1.3	Report	1.44 [b]	Effluent	Continuous	Recorded
Biochemical Oxygen Demand (BOD_5)	mg/L	…..	30	45	60	Effluent	2/Week	24-hour Composite [c]
	lbs/day	…..	325	488	650			
BOD_5	mg/L	…..	Report		Report	Influent	2/Week	24-hour Composite [c]
BOD_5 Percent Removal	%	…..	85 [d]	N/A	N/A	Influent and Effluent	1/Month	Calculated [e]
Total Suspended Solids (TSS)	mg/L	…..	30	45	60	Effluent	3/Week	24-hour Composite [c]
	lbs/day	…..	325	488	650			
TSS	mg/L	…..	Report		Report	Influent	3/Week	24-hour Composite [c]
TSS Percent Removal	%	…..	85 [d]	…..	…..	Influent and Effluent	1/Month	Calculated [e]
Fecal Coliform Bacteria (FC)	FC/100 mL	…..	14 [f]	…..	43 [g]	Effluent	1/Week	Grab
Enterococci Bacteria	#/100 mL	…..	Report [f]		Report	Effluent	1/Week	Grab
pH	SU	6.5	…..	…..	8.5	Effluent	5/Week	Grab
Temperature	˚ C	…..	…..	…..	Report	Effluent	1/Week	Grab
Total Residual Chlorine	mg/L	…..	0.0075 [h]	…..	0.013 [h]	Effluent	6/Week	Grab
Total Ammonia, as Nitrogen (N)	mg/L	…..	14	21	29	Effluent	1/Month	24-hour Composite [b]
	lbs/day	…..	152	228	314			
Total Recoverable Copper	µg/L	…..	18	27	36	Effluent	1/Quarter [i]	24-hour Composite [b]
	lbs/day	…..	195	293	390			
Total Recoverable Zinc	µg/L	…..	Report	…..	Report	Effluent	1/Quarter [i]	24-hour Composite [b]
Whole Effluent Toxicity (WET)	TUc	…..	…..	…..	Report	Effluent	See permit Section 1.5 for WET requirements	
APDES Application Form 2A Effluent Testing	varies	See Table 4 for a list of parameters and monitoring frequencies.						

Table 2: Outfall 001: Effluent Limits and Monitoring Requirements

		Effluent Limits				Monitoring Requirements		
Parameter	**Units [a]**	**Minimum Daily**	**Average Monthly**	**Average Weekly**	**Maximum Daily**	**Sample Location**	**Sample Frequency**	**Sample Type**

Notes:

a. Units; mgd = million gallons per day, mg/L = milligrams per liter, lbs/day = pounds per day, % = percent, FC/100 ml = fecal coliform bacteria per 100 milliliters, #/100 mL = count per 100 milliliters, SU = pH standard units, ºC = degree Celsius, µg/L = micrograms per liter, TUc = toxic units, chronic

b. Total discharge flow shall not exceed a maximum daily flow of 1.44 mgd.

c. Composite samples must consist of at least eight grab samples collected at equally spaced intervals and proportionate to flow so that composite samples reflect influent/effluent quality during the compositing period.

d. Average monthly % removal limits represent a monthly minimum.

e. Minimum percent removal = [(monthly average influent concentration in mg/L – monthly average effluent concentration in mg/L) / (monthly average influent concentration in mg/L)] X 100

f. All fecal coliform and enterococci bacteria average results must be reported as the geometric mean. When calculating the geometric mean, replace all results of zero, 0, with a one, 1. The geometric mean of "n" quantities is the "nth" root of the product of the quantities. For example the geometric mean of 100, 200, and 300 is $(100 \text{ X } 200 \text{ X } 300)^{1/3} = 181.7$

g. In a 30-day period, the geometric mean may not exceed 14 FC/100 mL and not more than 10 percent of samples may exceed 43 FC/100 mL.

h. Effluent limits for total residual chlorine are not quantifiable using EPA-approved analytical methods. The permittee will be in compliance with the effluent limits for chlorine provided the total residual chlorine levels are below the compliance evaluation level of 0.10 mg/L.

i. Quarter is defined as January-March, April-June, July-September, and October-December. Results for monitoring quarterly must be submitted with the DMR for the last month of the quarter: March, June, September, and December DMRs.

1.2.6 For all effluent monitoring, the permittee must use an Environmental Protection Agency (EPA) and Department approved test method (generally found in 18AAC 70 and 40 CFR § 136 [adopted by reference in 18 AAC 83.010]) that can achieve a method detection limit (MDL) less than the effluent limitation. For a parameter without an effluent limitation, the permittee must use a method that can achieve an MDL less than or equal to applicable water quality criteria.

1.2.7 Permittees have the option of taking more frequent samples than are required in the permit. These samples must be used for averaging if they are conducted using approved test methods and if the MDLs are less than the effluent limits.

1.2.8 For purposes of reporting on the discharge monitoring report (DMR) for a single sample, if a value is less than the MDL, the permittee must report "less than [numeric value of MDL]" and if a value is less than a minimum level (ML), the permittee must report "less than [numeric value of ML]."

1.2.9 For purposes of calculating a monthly average, zero (0) may be assigned for a value less than the MDL, and the [numeric value of MDL] may be assigned for a value between the MDL and the ML. If the average value is less than the MDL, the permittee must report "less than [numeric value of MDL]" 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 compliance level, ML, in assessing compliance.

1.2.10 Monthly averages are to be calculated over a calendar month and weekly averages are to be calculated over a time period of Sunday through Saturday.

1.2.11 Removal Requirements for BOD_5 and TSS: The monthly average percent removal for BOD_5 and TSS shall not be less that 85 percent and must be reported on DMRs. For each parameter, the monthly average percent removal must be calculated from the arithmetic mean of the influent values and the arithmetic mean of effluent values for that month. Influent and effluent samples must be taken over approximately the same period.

1.2.12 Effluent limits for total residual chlorine are not quantifiable using DEC approved analytical methods. DEC will use 0.1 mg/L as the compliance evaluation level for this parameter.

1.3 Compliance Schedule

1.3.1 The permittee must comply with all effluent limits and monitoring requirements in Section 1.2 beginning on the effective date of this permit, except those for which a compliance schedule is specified in Section 1.3.2 through Section 1.3.6.

1.3.2 A compliance schedule is authorized only for total ammonia as nitrogen.

1.3.3 While the compliance schedule is in effect, the permittee must complete the following actions:

1.3.3.1 By six months after the effective date of the final permit, the permittee must provide a preliminary report to DEC evaluating the possible causes of the increased ammonia concentrations and outlining possible solutions with the estimated costs and an estimated schedule for achieving final ammonia effluent limits for each possible solution.

1.3.3.2 By one year after the effective date of the final permit, the permittee must submit a draft plan of action to DEC for review and approval. The draft plan must identify the chosen solution and the funding needed to enable the permittee to meet final ammonia effluent limits.

1.3.3.3 At the first opportunity after the effective date of the final permit, the permittee must apply for funding if outside financing is necessary to achieve compliance with the final ammonia WQBELs.

1.3.3.4 As soon as possible but not to exceed four years after the effective date of the final permit, the permittee must obtain funding to complete the chosen altermative identified in the final DEC-approved plan of action. August 1 of the year funding is obtained will hereafter be referred to as the “funding date”.

1.3.3.5 By one year after the funding date, the permittee must submit a proposed construction schedule with dates for commencement and completion of major construction milestones leading to compliance with final ammonia effluent limits, (i.e., submitting engineered plans to DEC for review, executing contracts, commencing construction, completing construction, begin operating facility after upgrades). The construction schedule:

1.3.3.5.1 Must not have any single incremental milestone exceed one year,

1.3.3.5.2 Must be approved by DEC, and

1.3.3.5.3 Once approved, will become an enforceable part of this compliance schedule.

1.3.3.6 The permittee must achieve compliance with the final ammonia limits as set forth in Part 1.2 Table 2, as soon as possible but no later than August 1, 2025.

1.3.4 While the compliance schedule is in effect, the permittee must comply with interim effluent ammonia limits and monitoring requirements as specified in Table 3.

Table 3: Interim Ammonia Effluent Limits

Parameter	Units	Effluent Limits [a]			Monitoring Frequency		
		Average Monthly	Average Weekly	Maximum Daily	Sample Location	Sample Frequency	Sample Type
Total Ammonia, as Nitrogen (N)	mg/L	34	38	38	Effluent	1/Month	24-hour Composite
	lbs/day	369	412	412			

Note:
a. Final ammonia effluent limits are found in Section 1.2, Table 2.

1.3.5 By no later than August 1, 2017 (year two of the permit) and annually by August 1 thereafter, until compliance with final ammonia effluent limits, the permittee must submit an annual progress report to DEC. The progress report must include a summary of:

1.3.5.1 The previous year of effluent data and comparison to achieving the interim effluent limits;

1.3.5.2 The permittee's compliance with the required actions on the dates set forth in this compliance schedule and the DEC-approved construction schedule;

1.3.5.3 The cause of any reported noncompliance, any remedial actions taken, and a discussion of the likelihood of meeting the next scheduled requirements;

1.3.5.4 The specific actions the permittee has taken in the past year towards meeting the final ammonia effluent limits; and

1.3.5.5 The actions and milestones targeted for the upcoming year.

1.3.6 Notification of project milestones must be submitted in accordance with Appendix A Part 2.4, "Compliance Schedules".

1.4 Additional Monitoring

1.4.1 Design Flow Greater than 1.0 MGD

In accordance with Alaska Pollutant Discharge Elimination System (APDES) application Form 2A, Section 10, Section 11 and Supplement A, a facility with a design flow greater than 1.0 mgd shall conduct additional effluent monitoring of pollutants during the life of this permit and include the results with the permittee's reissuance application. The permittee shall perform effluent monitoring three times in the first four and one-half years of the permit term (see Table 4 requirements).

1.4.2 Each monitoring event shall be conducted in a different calendar year and in a different season as follows:

Winter –December through February,

Summer – June through August, and

Spring or Fall – March through May or September through November, respectively.

1.4.3 Monitoring for these parameters performed to satisfy other monitoring requirements of this permit may be used to satisfy this specific monitoring requirement as long as the "different calendar year and season" criteria are met.

Table 4: Additional Effluent Monitoring for Reissuance Application

Parameter	Units	Sample Location	Sample Frequency	Sample Type
Ammonia (as N)	mg/L	Effluent	3 / 4.5 years [a]	24-hour Composite
Total Residual Chlorine	mg/L	Effluent	3 / 4.5 years	Grab
Dissolved Oxygen	mg/L	Effluent	3 / 4.5 years	Grab
Nitrate/Nitrite	mg/L	Effluent	3 / 4.5 years	24-hour Composite
Kjeldahl Nitrogen	mg/L	Effluent	3 / 4.5 years	24-hour Composite
Oil and Grease	mg/L	Effluent	3 / 4.5 years	Grab
Phosphorus	mg/L	Effluent	3 / 4.5 years	24-hour Composite
Total Dissolved Solids	mg/L	Effluent	3 / 4.5 years	24-hour Composite
Expanded Effluent Testing (from Supplement A, Form 2A)	varies	Effluent	3 / 4.5 years	Varies

Notes:

a. 3 / 4.5 years means three samples must be taken within four and one half years from the effective date of this permit.

1.5 Whole Effluent Toxicity Testing Requirements

Chronic whole effluent toxicity (WET) tests must be conducted on effluent samples from Outfall 001. Testing shall be conducted in accordance with Parts 1.5.1 through 1.5.6.

1.5.1 The permittee must conduct chronic WET testing, at a minimum, twice per year. Within a year, the permittee must test for chronic WET at least once during the period from May 1 through October 31, and at least once during the period from November 1 through April 30. Permittee may conduct more than two chronic WET tests per year if needed, but must report results to all toxicity test to the Department.

1.5.2 Chronic WET testing must be conducted on 24-hour composite samples of effluent. A split of each sample collected must be analyzed for the chemical and physical parameters required in Table 2 which have a required monitoring frequency of quarterly or more frequently. When the timing of sample collection coincides with that of the sampling requirements of Table 2, analysis of the split sample will fulfill the requirements of Table 2 as well.

1.5.3 Chronic Test Species and Methods

1.5.3.1 The permittee must conduct fertilization tests with an echinoderm, either *Strongylocentrotus purpuratus* (purple sea urchin) or *Dendraster excentricus* (sand dollar).

1.5.3.2 Presence of chronic toxicity must be estimated as specified in *Short-Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to West Coast Marine and Estuarine Organisms*, EPA/600/R95-136, August 1995.

1.5.3.3 Results must be reported in TUc (toxic units, chronic) where TUc = 100/no observed effect concentration (NOEC) or 100/IC25 (in percent effluent).

1.5.4 Quality Assurance

1.5.4.1 The toxicity testing on each organism shall include a series of five test dilutions and a control. The dilution series shall consist of effluent concentrations of 11.2%, 8.5%, 5.6%, 2.8%, and 1.4% and a control (0% effluent).

1.5.4.2 The chronic toxicity testing requirements are triggered when toxicity exceeds 18 TUc, corresponding to receiving water dilution of 5.6 %. When chronic toxicity testing requirements are triggered, the permittee shall comply with the requirements set out in Sections 1.5.5.

1.5.4.3 All quality assurance criteria and statistical analysis used for chronic tests and reference toxicant tests must be in accordance with *Short-Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to West Coast Marine and Estuarine Organisms*, EPA/600/R95-136, August 1995 and individual test protocols.

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

1.5.4.4.1 If organisms are not cultured in-house, concurrent testing with reference toxicant must be conducted. If organisms are cultured in-house, monthly reference toxicant testing is sufficient. Reference toxicant tests must be conducted using the same test conditions as were used in the effluent toxicity tests.

1.5.4.4.2 If either one of the reference toxicant tests for the effluent tests do not meet all test acceptability criteria as specified in the test methods manual, the permittee must re-sample and re-test within 14 days of receipt of the test results.

1.5.4.4.3 Control and dilution water shall be synthetic water prepared as described in the manual. If the dilution water used is different from the culture water, a second control, using culture water shall also be used. Receiving water may be used as control and dilution water upon notification of DEC. In no case shall water that has not met test acceptability criteria be used as dilution water.

1.5.5 Accelerated Testing

1.5.5.1 If chronic toxicity testing requirements as defined in Section 1.5.4.2 above (NOEC > 18 TUc) are triggered, then the permittee shall conduct six more tests, biweekly (every two weeks), over a 12-week period. Accelerated testing must be initiated within two weeks of receipt of test results that indicate exceedance.

1.5.5.2 Initial investigation: If the permittee demonstrates through an evaluation of facility operations that the cause of the exceedance is known and corrective actions have been implemented, only one accelerated test is necessary.

1.5.5.3 The permittee shall notify DEC in writing of exceedances within two weeks of receipt of the test results. Notification shall include the following information:

1.5.5.3.1 A status report on any actions required by the permit with a schedule for action not yet completed;

1.5.5.3.2 A description of any additional actions the permittee has taken of will take to investigate and correct the cause(s) of toxicity; and

1.5.5.3.3 Where no actions have been taken, a written discussion of all reasons for not taking action.

1.5.5.4 If none of the accelerated tests indicates toxicity greater than 18 TUc, the permittee may return to the normal testing frequency.

1.5.5.5 If toxicity is greater than 18 TUc in any of the accelerated tests, the permittee must initiate a Toxicity Reduction Evaluation (TRE) as outlined in Section 1.5.6 within 15 days of the exceedance.

1.5.5.6 If implementation of an initial investigation work plan indicates the source of toxicity and corrective actions have been immediately implemented, only one accelerated test is necessary. If toxicity is greater than 18 TUc in this test, then TRE requirements in Section 1.5.6 shall apply.

1.5.6 TRE and Toxicity Identification Evaluation (TIE)

1.5.6.1 If chronic toxicity testing requirements as defined in Section 1.5.4.2 above (NOEC > 18 TUc) are triggered in any of the six additional tests required under Section 1.5.5.1, then, in accordance with EPA manual, *Toxicity Reduction Evaluation Protocol for Municipal Wastewater Treatment Plants*, EPA/600/2-88/062 the permittee shall initiate a TRE within 15 days of receipt of the sample results of the exceedance. The permittee will develop as expeditiously as possible a detailed TRE work plan, which includes:

1.5.6.1.1 Further actions to investigate and identify the cause of toxicity;

1.5.6.1.2 Actions the permittee will take to mitigate the impact of the discharge and to prevent the recurrence of toxicity; and

1.5.6.1.3 A schedule for these actions.

1.5.6.2 The permittee may initiate a TIE as part of the overall TRE process. Any TIE must be performed in accordance with EPA guidance manuals, *Toxicity Identification Evaluation, Characterization of Chronically Toxic Effluents, Phase I* (EPA/600-6-91-005F, May 1992); *Methods for Aquatic Toxicity Identification Evaluation, Phase II: Toxicity Identification Procedures for Samples Exhibiting Acute and Chronic Toxicity* (EPA/600-R-92-080, September 1993); and *Methods for Aquatic Toxicity Identification Evaluations, Phase III: Toxicity Confirmation Procedures for Samples Exhibiting Acute and Chronic Toxicity* (EPA/600-R-92-081, September 1993).

1.5.6.3 If a TRE is initiated prior to completion of the accelerated testing, the accelerated testing schedule may be terminated, or used as necessary in performing the TRE.

1.5.7 WET Reporting

1.5.7.1 The permittee shall submit the results for the toxicity tests, including any accelerated testing conducted during the month, with the DMR for the month in which the test is completed. If an initial investigation indicates the source of toxicity and accelerated testing is unnecessary, pursuant to Section 1.5.5.6, then those results shall also be submitted with the DMR for the quarter in which the investigation occurred.

1.5.7.2 The full report shall be submitted by the end of the month in which the DMR is submitted.

1.5.7.3 The toxicity test result report must include all relevant information outlined in Chapter 10, *Report Preparation of Short-Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to West Coast Marine and Estuarine Organisms*, EPA/600/R95-136, August 1995. The full report shall consist of the results; the dates of sample collection and initiation of each toxicity test: the triggers as defined in Section 1.5.4.2 above; the type of activity occurring; the flow rate at the time of sample collection; and the chemical parameter monitoring required for the outfall as defined in the permit.

1.6 Mixing Zone

In accordance with state regulations at 18 AAC 70.240, as amended through June 26, 2003, a chronic mixing zone for ammonia, copper, zinc, and WET is authorized in Cook Inlet for discharges from Outfall 001. The chronic mixing zone is defined as the area within a circle of 150 meter radius, centered on the end of the outfall pipe and extending from the marine bottom to the surface. The chronic mixing zone for this discharge at times when the end of the pipe is not under water due to tidal fluctuations, is defined as the area within a half circle of 150 meter radius, centered on the point where the effluent enters marine water. The chronic mixing zone has a dilution factor of 18:1. An acute mixing zone is authorized for ammonia, copper, and zinc. The acute mixing zone for this discharge is defined as the area within a circle of seven meter radius, centered on the end of the outfall pipe and extending from the marine bottom to the surface. The acute mixing zone for this discharge at times when the end of the pipe is not under water due to tidal fluctuations, is defined as the area within a half circle of seven meter radius, centered on the point where the effluent enters marine water. The acute mixing zone has a dilution factor of 6.7:1.

1.7 Ambient Receiving Water Monitoring

The permittee must conduct ambient receiving water monitoring. Ambient receiving water monitoring must start during the first full quarter after the effective date of the permit (quarters defined as January through March, April through June, July through September, and October through December) and continue for the life of the permit. The program must meet the following requirements:

1.7.1 A monitoring station must be established in Cook Inlet outside the influence of the facility's discharge (e.g., beyond the boundary and outside the mixing zone).

1.7.2 All receiving water samples must be grab samples.

1.7.3 Samples must be analyzed for the parameters listed in Table 5.

Table 5: Ambient Receiving Water Body Monitoring Requirements

Parameter	Units	Sampling Frequency	Sample Type
Total Ammonia as N	mg/L	Quarterly [a]	Grab
Temperature	°C	Quarterly	Grab
pH	SU	Quarterly	Grab
Salinity	Grams/kilogram	Quarterly	Grab

Note
a. Quarterly is defined as once in each quarter, January through March, April through June, July through September, and October through December.

1.7.4 Quality assurance/quality control plans for all the monitoring must be documented in the updated QAPP required under Part 2.1., "Quality Assurance Project Plan".

1.7.5 Ambient receiving water monitoring results must be submitted to DEC with the application for permit reissuance. At a minimum, the report must include:

1.7.5.1 Dates of sample collection and analyses;

1.7.5.2 Results of sample analyses; and

1.7.5.3 Relevant quality assurance/quality control (QA/QC) information.

2.0 SPECIAL CONDITIONS

2.1 Quality Assurance Project Plan

2.1.1 The permittee must develop, implement, and maintain a QAPP for all monitoring required by this permit. The permittee must submit written notice to DEC within 120 days of the effective date of this permit affirming that its QAPP has been developed or updated and implemented. Any existing QAPP may be modified under this Part.

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

2.1.3 The permittee may use either the generic DEC Wastewater Treatment Facility Quality Assurance Project Plan (DEC QAPP) or must develop a facility-specific QAPP. Some facility specific information is required to complete the QAPP when using the generic DEC QAPP.

2.1.4 Throughout all sample collection and analysis activities, the permittee must use DEC-approved 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.

2.1.5 At a minimum, a QAPP must include:

2.1.5.1 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;

2.1.5.2 A description of how the permittee will report weekly monitoring averages on DMRs when the week overlaps two months;

2.1.5.3 Maps indicating the location of each sampling point;

2.1.5.4 Qualification and training of personnel; and

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

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

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

2.2 Operation and Maintenance Plan

2.2.1 In addition to requirements specified in Appendix A, Part 1.6 of this permit (Proper Operation and Maintenance), the permittee must develop, implement, and maintain an O&M Plan for the wastewater treatment facility. The permittee must submit written notice to DEC within 120 days of the effective date of this permit affirming that its O&M Plan is up to date and has been developed or updated and implemented. Any existing O&M Plan. may be modified under this Part.

2.2.2 If an existing O&M Plan is modified it must address any changes in operation, maintenance, and/or BMPs.

2.2.3 The permittee shall ensure that the O&M Plan includes appropriate best management practices (BMPs). BMPs include measures that prevent or minimize the potential for the release of pollutants to Cook Inlet.

2.2.4 The O&M Plan must be reviewed annually and documentation of annual plan review by the permittee shall be retained on-site and made available to DEC upon request.

2.3 Industrial User Survey

The permittee shall conduct an industrial user survey of industrial users connected to KWWTF. The industrial user survey must be conducted once during the term of this permit and be submitted to DEC at least 180 days before the expiration of the permit.

2.4 Identification Sign(s)

The permittee shall continue to post a sign or signs on the shoreline adjacent to the discharge point that indicate the name and contact number for the facility, the permit and authorization number, the type of discharge (treated domestic wastewater), and the approximate location and size of the mixing zone. The sign(s) should inform the public that certain activities, such as harvesting of aquatic life for raw consumption, should not take place in the mixing zone.

2.5 Removed Substances

Collected screenings, grit, solids, scum, and other facility residuals, or other pollutants removed in the course of treatment or control of water and wastewaters shall be disposed of in a Department approved manner and method in accordance with 18 AAC 60, such as to prevent any pollution from such materials from entering navigable waters.

APPENDIX A

STANDARD CONDITIONS

APDES INDIVIDUAL PERMIT

PUBLICLY OWNED TREATMENT WORKS

September 2011

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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.

1.6.3 In accordance with 18 AAC 72.065, the owner of operator of a domestic system that has 100 or more service connections or that is used, or intended for use, by 500 or more people per day shall ensure that the system is operated by a person certified under 18 AAC 74.

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 Notice of New Introduction of Pollutants

2.8.1 Any POTW shall provide adequate notice to the Department, including information on the quality and quantity of effluent introduced into the POTW, and any anticipated impact of the change on the quantity or quality of effluent to be discharged from the POTW as soon as the POTW has knowledge of a change, but no later than seven days in advance of any:

2.8.1.1 New introduction of pollutants into the POTW from an indirect discharger if that introduction of pollutants would be subject to 33 U.S.C 1311 or 33 U.S.C 1316 if the POTW directly discharged those pollutants, and

2.8.1.2 Substantial change in the volume or character of pollutants being introduced into that POTW by a source introducing pollutants into the POTW at the time of issuance of the permit.

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

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 3.4.1.2 by submitting the written report via email, 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 email; 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 email and PDF written report will satisfy the written report submission requirements of this permit provided the email is received by the Department within five days after the time the permittee becomes aware of the noncompliance event, and the email and written report satisfy the criteria of Part 3.4.5. The email 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. The permittee 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) $200,000; (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)(1)(B), (c)(2), and (c)(3)).

Appendix B

Acronyms

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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 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
ADEC	Alaska Department of Environmental Conservation
Ag	Silver
As	Arsenic
APDES	Alaska Pollutant Discharge Elimination System
AS	Alaska Statutes
AS 46.03	Alaska Statutes Title 46, Chapter 03: Environmental Conservation. Available at http://www.legis.state.ak.us/default.htm
BOD_5	Biochemical Oxygen Demand, 5-day
BMP	Best Management Practice
Cd	Cadmium
CFR	Code of Federal Regulations
Cu	Copper
CWA	Clean Water Act
DMR	Discharge Monitoring Report
DO	Dissolved Oxygen
EPA	U.S. Environmental Protection Agency
FC	Fecal Coliform Bacteria
GPD or gpd	Gallons per day
IC_{25}	Inhibition Concentration 25%
I/I	Infiltration and Inflow
lbs/day	Pounds per day
LC_{50}	Lethal Concentration 50%

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MDL	Method Detection Limit
MDL	Maximum Daily Limit
mg/L	Milligrams per Liter
MGD or mgd	Million gallons per day
ML	Minimum Level
MLLW	Mean Lower Low Water
N/A	Not Applicable
NOEC	No Observed Effect Concentration
POTW	Publicly Owned Treatment Works
PQL	Practical Quantification Limit
QA	Quality Assurance
QA/QC	Quality Assurance/Quality Control
QAPP	Quality Assurance Project Plan
QC	Quality Control
RL	Reporting Limit
SU	Standard Units
TIE	Toxicity Identification Evaluation
TRE	Toxicity Reduction Evaluation
TSS	Total Suspended Solids
TUc	Toxic Unit, Chronic
µg/L	Micrograms per Liter
U.S.C.	United States Code
WQS	Water Quality Standards
WWTF	Wastewater Treatment Facility
Zn	Zinc

Appendix C

Definitions

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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.

Administrator[a]	Means the Administrator of the EPA or an authorized representative
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
Aquaculture[b]	Means the cultivation of aquatic plants or animals for human use or consumption
Average	Means an arithmetic mean obtained by adding quantities and dividing the sum by the number of quantities
Average Monthly Discharge 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
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.
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
Black Water	Means water that contains animal, human, or food waste
Boundary[b]	Means line or landmark that serves to clarify, outline, or mark a limit, border, or interface
Bypass[a]	Means the intentional diversion of waste streams from any portion of a treatment facility
Chemical Oxygen Demand (COD)[f]	Is used as a measure of the oxygen equivalent of the organic matter content of a sample that is susceptible to oxidation by a strong chemical oxidant
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
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

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

	the commissioner's designee
Composite Samples	Composite samples must consist of at least eight equal volume grab samples. 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.
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 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.
Datum	A datum defines the position of the spheroid, a mathematical representation of the earth, relative to the center of the earth. It provides a frame of reference for measuring locations on the surface of the earth by defining the origin and orientation of latitude and longitude lines.
Department[a]	Means the Alaska Department of Environmental Conservation
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

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

	include an addition of pollutants by any indirect discharger.
Dissolved Oxygen (DO)[b]	Means the concentration of oxygen in water as determined either by the Winkler (iodometric) method and its modifications or by the membrane electrode method. The oxygen dissolved in water or wastewater and usually expressed in milligrams per liter or percent saturation
Domestic Wastewater[c]	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.
Ecosystem[b]	Means a system made up of a community of animals, plants, and bacteria and the system's interrelated physical and chemical environment
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.
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.
Final Approval to Operate	Means the approval that the Department issues after it has reviewed and approved the construction and operation of the engineered wastewater treatment works plans submitted to the Department in accordance with 18 AAC 72.215 through 18 AAC 72.280 or as amended.
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. Example geometric mean calculation: $\sqrt[4]{12x23x34x990} = 55$.
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
Gray Water[b]	Means wastewater from a laundry, kitchen, sink, shower, bath, or other domestic source that does not contain excrement, urine, or combined stormwater
Influent	Means untreated wastewater before it enters the first treatment process of a wastewater treatment works
Inhibition Concentration 25% (IC_{25})[e]	Means the point estimate of the toxicant concentration that would cause 25% reduction in a nonlethal biological measurement of the test organisms, such as reproduction or growth
Lethal Concentration 50% (LC_{50})[e]	Mean the point estimate of the toxicant that would be lethal to 50% of the test organisms during a specific period

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
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Maximum Daily Discharge 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
Mean Lower Low Water[b]	Means the tidal datum plane of the average of the lower of the two low waters of each day, as would be established by the National Geodetic Survey, at any place subject to tidal influence
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.
Method Detection Limit (MDL)[d]	Means the minimum concentration of a substance (analyte) that can be measured and reported with 99 percent confidence that the analyte concentration is greater than zero and is determined from analysis of a sample in a given matrix containing the analyte
Micrograms per Liter (μg/L)[b]	Means the concentration at which one millionth of a gram (10^{-6} g) is found in a volume of one liter
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.
Minimum Level (ML)[e]	Means the concentration at which the entire analytical system must give a recognizable signal and an acceptable calibration point. The ML is the concentration in a sample that is equivalent to the concentration of the lowest calibration standard analyzed by a specific analytical procedure, assuming that all the method-specified sample weights, volumes, and processing steps have been followed. This level is used as the compliance level if the effluent limit is below it.
Mixing Zone[b]	Means a volume of water adjacent to a discharge in which wastes discharged mix with the receiving water
Month	Means the time period from the 1st of a calendar month to 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
No Observed Effect Concentration (NOEC)[e]	Means the highest concentration of an effluent or a toxicant at which no adverse effects are observed on the aquatic test organisms at a specific time of observation. NOEC is determined using hypothesis testing.
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

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
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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.
Practical Quantification Limit (PQL)[g]	Means the lowest level that can be reliably achieved within specified limits of precision and accuracy during routine laboratory operating conditions.
Primary Contact Recreation	See Contact Recreation
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
Quality Assurance Project Plan (QAPP)	Means a system of procedures, checks, audits, and corrective actions to ensure that all research design and performance, environmental monitoring and sampling, and other technical and reporting activities are of the highest achievable quality
Quarter	Means the time period of three months based on the calendar year beginning with January
Receiving Water Body	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))
Recorded	Means a permanent record using mechanical or electronic equipment to provide a totalized reading, as well as a record of instantaneous readings
Report	Report results of analysis
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

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
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	recreation does not include fish consumption.
Settleable Solids[b]	Means solid material of organic or mineral origin that is transported by and deposited from water, as measured by the volumetric Imhoff cone method and at the method detection limits specified in method 2540(F), *Standard Methods for the Examination of Water and Wastewater*, 18th edition (1992), adopted by reference in 18 AAC 70.020(c)(1)
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
Significant Industrial User (SIU)[g]	Means an indirect discharger that is the focus of control efforts under the national pretreatment program; includes all indirect dischargers subject to national categorical pretreatment standards, and all other indirect dischargers that contribute 25,000 gpd or more of process wastewater, or which make up five percent or more of the hydraulic or organic loading to the municipal treatment plant, subject to certain exceptions [40 CFR $403.3(t)].
Suspended Solids	Means insoluble solids that either float on the surface of, or are in suspension in, water, wastewater, or other liquids. The quantity of material removed from wastewater in a laboratory test, as prescribed in *Standard Methods for the Examination of Water and Wastewater* and referred to as nonfilterable.
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
Toxic Unit, Chronic (TUc)[e]	Means the reciprocal of the effluent concentration that causes no observable effect on the test organisms by the end of the chronic exposure period (i.e., 100/NOEC)
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.
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
Waters of the United States or Waters of the	Has the meaning given in 18 AAC 83.990(77)

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
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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

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