Alaska Department of Environmental Conservation
Air Permits Program

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Municipality of Anchorage-Anchorage Water and Wastewater Utility

John M. Asplund Water Pollution Control Facility

STATEMENT OF BASIS

of the terms and conditions for

Permit No. AQ0245TVP03

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INTRODUCTION

This document sets forth the statement of basis for the terms and conditions of Operating Permit No. AQ0245TVP03.

STATIONARY SOURCE IDENTIFICATION

Section 1 of Operating Permit No AQ0245TVP03 contains information on the stationary source as provided in the Title V permit application.

The stationary source is owned and operated by Municipality of Anchorage – Anchorage Water and Wastewater Utility and Municipality of Anchorage-Anchorage Water and Wastewater Utility is the Permittee for the stationary source's operating permit. The Standard Industrial Classification code for this stationary source is 4952 - Sewerage Systems. The North American Industrial Classification System code for this stationary source is 221320 – Sewage Treatment Facilities.

The John M. AsplundWater Pollution Control Facility (Asplund Plant) is used as a primary wastewater treatment plant for the Anchorage Bowl and the surrounding communities, with a residential population of around 301,000 in 2013 and some industrial sources in the Anchorage area. Built in 1972 and expanded to a capacity of 58 million gallons per day (mgd) in 1987, this stationary source operates under an EPA secondary treatment waiver. The Asplund Plant provides primary treatment to an average daily flow of wastewater of approximately 30 mgd. Unit processes include screen, grit removal, clarification, disinfection, solids thickening, dewatering, and incineration. Biosolids and skimming's removed from the six clarifiers are thickened, de-watered, and incinerated. The residual ash is wetted and hauled to the municipal landfill for disposal. The effluent is chlorinated before it is discharged through an 800-foot-long outfall to Knik Arm, an extension of Cook Inlet.

EMISSION UNIT INVENTORY AND DESCRIPTION

Under 18 AAC 50.326(a), the Department requires operating permit applications to include identification of all emissions-related information, as described under 40 C.F.R. 71.5(c)(3).

The emission units at the John M. Asplund Water Pollution Control Facility that are classified and have specific monitoring, recordkeeping, and reporting requirements are listed in Table A of Operating Permit No. AQ0245TVP03.

Table A of Operating Permit No. AQ0245TVP03 contains information on the emission units regulated by this permit as provided in the application. The Permittee removed EU ID 3 listed in Table A of AQ0245TVP02 from the stationary source. The table is provided for informational and identification purposes only. Specifically, the emission unit rating/size provided in the table is not intended to create an enforceable limit.

Emergency Generator (EU ID 2)

The diesel-fired emergency generator EU ID 2 was added to Table A of renewal Operating Permit AQ0245TVP02. EU ID 2 is subject to the requirements of 40 C.F.R. 60, Subpart IIII. The requirements of 18 AAC 50.055 for industrial processes and fuel burning equipment were added to Operating Permit AQ0245TVP02 for EU ID 2.

Incinerator (EU ID 1)

A Zimpro Multiple-Hearth incinerator was installed at the stationary source to replace the older BSP Envirotech SSI, and began operation in 1986. The older BSP Envirotech incinerator is still located at the plant but has been removed from service. This incinerator is not capable of being operated. During a stack emissions test of EU ID 1 performed on September 11, 2007, the feedrate was calculated to be 9,986 dry tons of sludge per year. The Department determined that this feedrate is an acceptable specification of the incinerator's rating.[1] This is the rate used to demonstrate compliance with applicable emissions standards for this unit.

Compliance monitoring devices of EU ID 1 include a COMS and a pressure differential meter on the scrubber system. Other required measuring systems include an oxygen monitor, temperature monitors on the hearths, a sludge belt scale, a natural gas meter, and an effluent flow-meter.

The incinerator has a multiple throat venturi scrubber and multiple impingement tray wet scrubber in series controlling air pollutant emissions in the exhaust from the incinerator. The SSI is a natural gas-fired unit and fueled by pipeline quality natural gas. The upper part of the tray scrubber is a mist eliminator. A second mist eliminator follows the tray scrubber. Ash handling is done under negative pressure, effectively containing any fugitive emissions within the ash ducts. The ash is watered and the slurry is loaded on dump trucks for land filling at the Anchorage landfill. Dewatered (belt pressed) sludge entering the incinerator top has around 30% solids. Rotating Rabble arms rake the sludge, exposing surface area to heat. The sludge travels from one hearth to next during the incineration from the drying hearts (1 and 2) at the top, to the combustion hearts (3 and 4) in the center and finally to the cooling hearths (5 and 6) at the bottom.

Combustion gases from the top of the incinerator move up the scrubber aided by the ID fan's suction, through counter current water spray in a series of perforated impingement plates, to the stack exit. CEMs for measuring stack temperature, and opacity are located at the stack exit.

According to the permit renewal application for Operating Permit AQ0245TVP02, the owner made the following improvements during the term of AQ0245TVP01, to the incinerator (EU ID 1) under an "off- permit" classification under 40 C.F.R. 71.6(a)(12). These were described as "functionally equivalent components".

- Internal refractory and steel shell repairs to the furnace;
- Replacement of a fixed speed 125 hp induced draft fan with a variable speed 100 hp fan;
- Replacement of a single throat venturi and multiple impingement tray wet scrubber with a multiple throat venturi and multiple impingement tray wet scrubber;
- Replacement of all 8 gas burners with equivalent BTU/hr rated low-NO_X gas burners;
- Installation of 2 ambient air ports (common industry practice); and
- Supervisory control and data acquisition monitoring, display, and control system improvements replacing manual systems.

[1] Determination made April 19, 2010, based on Department discussion with the Permittee; and relatively flat growth profile for Anchorage due to spatial limitations. Additionally, the stationary source installed an upstream filter (screen) for solids removal with screened solids sent to the landfill instead of the incinerator.

The Permittee has certified that the fixed capital costs associated with these improvements to the existing incinerator (EU ID 1) did not exceed 50 percent of the fixed capital cost that would be required to construct a comparable entirely new incinerator.[2]

Insignificant Emission Units and Activities

The Permittee identified the following insignificant emission units and activities, which are exempt from being included in the permit because of their size or production rates:

1) Mobile sources;
2) Air-conditioning, ventilating units, and heating units used for human comfort;
3) Noncommercial food preparation;
4) Consumer use of office equipment and products;
5) Janitorial services and consumer use of janitorial products;
6) Internal combustion engines used for landscaping purposes;
7) Two natural gas-fired hot water boilers (< 4 MMBtu/hr each);
8) Seven natural-gas fired space heaters (< 4 MMBtu/hr each);
9) Three natural-gas fired HVAC units (< 4 MMBtu/hr each);
10) One natural-gas fired humidifier (140,000 Btu/hr);
11) One above ground 2,000 gallon diesel fuel tank;
12) Two grit chambers (domestic sewage);
13) One flow splitting structure (domestic sewage);
14) Six clarifiers (domestic sewage); and
15) Four thickeners (domestic sewage)

EMISSIONS

Table J presents a summary of the potential to emit (PTE)[3] and assessable PTE from the John M**.** Asplund Water Pollution Control Facility. Emissions from the incinerator and wastewater & sludge handling are as indicated in the application. The Department reviewed the emissions and found them satisfactory. The Department re-calculated emissions from emergency generator EU ID 2 using factors from AP-42, Table 3.4-1, 500 hr/yr, and assuming 0.75 wt% sulfur.

[2] In their June 2, 2010 Request for Information response, AWWU indicated that the upgrades to the incinerator cost $7.71 million and that the 1999 Asplund WWTF Facility Plan by CH2M-Hill estimated the cost of a new fluidized bed incinerator to be $42 million.

[3] *Potential to Emit* or *PTE* means the maximum capacity of a stationary source to emit a pollutant under its physical or operational design. Any physical or operational limitation on the capacity of the source to emit a pollutant, including air pollution control equipment and restrictions on hours of operation or on the type or amount of material combusted, stored, or processed, shall be treated as part of its design if the limitation or the effect it would have on emissions is federally enforceable. Secondary emissions do not count in determining the potential to emit of a stationary source, as defined in AS 46.14.990(23), effective 12/3/05.

Table J - Emissions Summary, in Tons Per Year (TPY)

Pollutant	NOx	CO	PM-2.5	PM-10	PM	SO_2	VOC	CO_2e	HAPs	Total
PTE (Incinerator)	25.0	43.6	0.6	0.7	2.2	1.0	8.0	18	3.6	
PTE (All Units)	33.2	50.2	1.2	1.3	2.8	1.4	15.0	9,306	9.2	
Assessable PTE	25	44	Included in PM		0	0	0	N/A	0	69

Table Notes:
The stationary source is subject to Title V requirements only because the incinerator is subject to 40 C.F.R. 63, Subpart MMMM. Per 18 AAC 50.410(d), only the incinerator emissions are assessable.

The assessable PTE for this stationary source listed under Condition 54.1 is the sum of the emissions of each individual regulated air pollutant for which the SSI at the stationary has the potential to emit quantities greater than 10 TPY. The emissions listed in Table J are estimates that are for informational use only. The listing of the emissions does not create an enforceable limit to the stationary source.

Detailed methods the Permittee used to estimate emissions from the incinerator are as follows:

The Permittee calculated emissions of criteria pollutants and HAPs from the incinerator (EU ID 1) using U.S. EPA AP-42 emission factors, emission factors determined during the source test conducted in 2012 and a potential feedrate of 9,986 tons of dry sludge per year. The Permittee calculated VOC emissions, including fugitive emissions, from wastewater and sludge handling processes using emission factors from the Joint Emission Inventory Program for the California South Coast Air Quality Management District for Rule 1179. The Permittee calculated HAP emissions from wastewater and sludge handling processes using results of the August 1996 priority pollutant testing.

Note: The Permittee performed source testing of EU ID 1 on September 11, 2007 to establish site specific emission factors for calculating the stationary source's potential to emit for Title V permit applicability. The Permittee performed the emissions source test to demonstrate that the emissions of regulated air pollutants were below 100 tpy, the Title V permit requirement threshold. If the incinerator CO production rates (the largest emission) is less than 100 tpy, the Anchorage Water and Wastewater Utility (AWWU) would no longer be required to obtain a Title V permit.

On March 18, 2010, the Department sent a letter to the Permittee indicating that the September 11, 2007 test was not representative of AWWU's normal operations. As such, the Department denied the Permittee's requested revisions in the application for renewal Operating Permit AQ0245TVP02.

Based on this decision, the Department maintained that AWWU is a Title V source based on emissions of regulated air pollutants and requires a Title V operating permit as set forth in AS 46.14.130(b) and 18 AAC 50.326(a). The Department processed the Title V renewal application the Permittee submitted for AWWU on January 29, 2008.

In the renewal application for Permit AQ0245TVP02, the Permittee requested changes to the calculated rated size of the Zimpro Incinerator with multi-venturi scrubber and impingement tray scrubber (EU ID 1) from 15,172 dry tons per year to 9,986 dry tons of sludge per year. The Department determined that a feedrate of 9,986 dry tons per year is an acceptable specification of the incinerator's rating.

The Permittee also noted in the renewal application submitted for AWWU on January 29, 2008 that the 2007 source test indicated an incinerator PM emission rate of 0.245 pounds per dry ton of bio-solids. This is less than the 0.75 pounds per /dry ton of bio-solids threshold limit and qualifies AWWU for the monitoring of operation exemptions provided in 40 C.F.R. 60.153(d). The Permittee requested the Department to apply the following Subpart O monitoring exemptions to the AWWU Title V operating permit:

- Continuous operation of the monitoring devices and data recorders in 40 C.F.R. 60.153(a)(1), 40 C.F.R. 60.153(b)(3), and 40 C.F.R. 60.153(b)(4) shall not be required.
- Daily sampling and analysis of sludge feed in 40 C.F.R. 60.153(b)(5) shall not be required.
- Recordkeeping specified in 40 C.F.R. 60.153(c)(3) shall not be required.

However, at any time the Permittee exceeds the NSPS monitoring threshold (i.e., 0.75 lb/dry tons bio-solids), such exemptions shall no longer apply to the stationary sourceBASIS FOR REQUIRING AN OPERATING PERMIT

In accordance with AS 46.14.130(b), an owner or operator of a Title V source[4] must obtain a Title V permit consistent with 40 C.F.R. Part 71, as adopted by reference in 18 AAC 50.040.

Except for sources exempted or deferred by AS 46.14.120(e) or (f), AS 46.14.130(b) lists three categories of sources that require an operating permit:

- A major source;
- A stationary source including an area source subject to Federal new source performance standards under Section 111 of the Clean Air Act or national emission standards under Section 112 of the Clean Air Act;
- Another stationary source designated by the Federal administrator by regulation.

The stationary source was a Title V source because it had the potential to emit more than 100 tpy of CO. After decommissioning EU ID 3 and basing potential emissions of emergency engine EU ID 2 on 500 operating hours per year, the stationary source no longer has the potential to emit more than 100 tpy of any pollutant, 10 tpy of any HAP, or 25 tpy of total HAPs. This stationary source still requires an operating permit because it contains a SSI. It is classified under 18 AAC 50.326(a), 40 C.F.R. 71.3(a) as a stationary source, including an area source, subject to a standard, limitation or other requirement under Section 111 of the Act (NSPS) not exempted or deferred under AS 46.14.120(e) or (f). 40 C.F.R. 60, Subpart MMMM (40 C.F.R. 60.5240) requires a stationary source containing a SSI to obtain a Title V operating permit.

AIR QUALITY PERMITS

Previous Air Quality Permit to Operate

The most recent permit-to-operate the Department issued for AWWU is Permit-to-Operate No. 9521-AA0011. This permit-to-operate included all construction authorizations issued through April 21, 1995, and was issued before January 18, 1997 (the effective date of the new divided Title I/Title V permitting program).

[4] *Title V source* means a stationary source classified as needing a permit under AS 14.130(b) [ref. 18 AAC 50.990(111)].

Title I (Construction and Minor) Permits

The Department has not issued any construction permit for this stationary source since January 17, 1997 (the effective date of the new divided operating and construction-permitting program). The Department has not issued any minor permit for this stationary source since September 30, 2004.

Title V Operating Permit Application, Revisions and Renewal History

The owner submitted an initial permit application on December 5, 1997. The Department issued the initial Operating Permit AQ0245TVP01 June 30, 2003.

The Department issued Revision 1 to the initial permit on November 19, 2004 to correct material mistakes. This revision removed permit conditions which incorporated requirements of 30 C.F.R. 503, which are based on the Clean Water Act.

The owner submitted a permit renewal application on January 29, 2008 and amended the application on April 24, 2008 to provide revised information for the 125 kW and 150 kW generators. On August 12, 2009, the Department requested additional information regarding the September 11, 2007 source testing results. The Department received the requested information on October 1, 2009. The Department requested additional information concerning the sludge incinerator during a teleconference on October 16, 2009 and received the additional information on November 25, 2009.

The Department received additional information on June 3, 2010. This information was in response to the Department's Request for Information letter sent to AWWU on May 10, 2010 regarding PTE calculations, the applicability of NESHAP Subpart ZZZZ for the emergency generators, and the fixed capital costs of incinerator improvements. In their response, the Permittee indicated that the 125 kW generator, referenced in the April 24, 2008 amended application, has since been replaced with a 750 kW generator as well as several other minor modifications to the insignificant emission unit list. The Department issued Operating Permit No. AQ0245TVP02 on March 2, 2011.

The owner or operator submitted a permit renewal application for Operating Permit AQ0245TVP03 on September 4, 2014. Though the PTE of each regulated pollutant is below the Title V permit requirements, the stationary source is still subject to Title V permit requirements because it contains a SSI. Operating Permit AQ0245TVP02 carried forward all stationary source-specific requirements established in Permit-to-Operate No. 9521-AA0011 and are carried forward into renewal Operating Permit AQ0245TVP03.

COMPLIANCE HISTORY

The stationary source has operated at its current location since 1972[5]. Full Compliance Evaluations conducted in 2004, 2006, and 2008 found ongoing violations of the opacity standard. The Permittee responded to the 2008 FCE on June 18, 2008. The response detailed AWWU's Incinerator Re-Control Project and Incinerator Upgrades Project. The Department found that reports of excess opacity greatly reduced after those improvement projects were completed, and took no further action.

[5] April 8 2015 email from Michael Fezatte, TPO IV / WIMS-Title V Air Quality, AWWU

The Department conducted full onsite compliance evaluations on March 31, 2010 for the first quarter of 2010 and discovered procedural violations. The Department performed a full offsite compliance evaluation for the period 1/1/2010 through 12/31/2011 and discovered procedural violations. On December 4, 2013, the Department performed a full onsite compliance evaluations and discovered emissions and procedural violations. The Permittee submitted reports outlining corrective actions taken to minimize the potential for re-occurrence of opacity and oxygen monitoring violations. Based on the actions the Permittee took, the Department took no further action.

The compliance evaluations indicate a stationary source generally operating in compliance with its operating permit.

APPLICABLE REQUIREMENTS FROM PRE-CONSTRUCTION PERMITS

Incorporated by reference at 18 AAC 50.326(j), 40 C.F.R. Part 71.2 defines "applicable requirement" to include the terms and conditions of any pre-construction permit issued under rules approved in Alaska's State Implementation Plan (SIP).

Alaska's SIP includes the following types of pre-construction permits:

- Permit-to-operate issued before January 18, 1997 (these permits cover both construction and operations);
- Construction Permits issued after January 17, 1997; and
- Minor permits issued after October 1, 2004.

Pre-construction permit terms and conditions include both source-specific conditions and conditions derived from regulatory applicable requirements such as standard conditions, generally applicable conditions and conditions that quote or paraphrase requirements in regulation.

These requirements include, but not limited to, each emission unit- or source-specific requirement established in these permits issued under 18 AAC 50 that are still in effect at the time of this operating permit issuance. Table K lists the requirements carried over Operating Permit No. AQ0245TVP02 into renewal Operating Permit No. AQ0245TVP03 to ensure compliance with the applicable requirements. The table does not include comparison of generic conditions.

Table K - Comparison of Operating Permit No. AQ0245TVP02 Conditions to Operating Permit No. AQ0245TVP03 Conditions[6]

AQ0245TVP02 Condition No.	Description of Requirement	AQ0245TVP03 Condition No.	How Condition was Revised
Table A	Emission Unit Inventory	Table A	Deleted EU ID 3, revised table notes
1	Visible emissions standard	1	Deleted EU ID 3
1.1	Visible emissions MR&R	1.1	Deleted EU ID 3.
2	Incinerator VE emissions standards and MR&R	2	No change
3	Visible emissions monitoring	3	Deleted EU ID 3
3.1	Method 9 Plan	3.1	Revised to new template language
3.2	Smoke / No Smoke Plan	3.2	No change
3.3	Corrective Actions	3.3	No change
4 – 4.2	VE Recordkeeping	4 – 4.2	No change
5 – 5.2	VE Reporting	5 – 5.2	Revised leading sentence in Condition 5 to match new template language.
6	Engine PM emission standards	6	Deleted EU ID 3
6.1	Engine PM emissions MR&R	6.1	Deleted EU ID 3.
7 – 7.2	Incinerator PM emission standards and MR&R	7 – 7.4	Streamlined the condition numbering and clarified the conditions
8	PM monitoring for engines	8	Deleted EU ID 3
9	Exhaust diameter recording	No equivalent	Requirement satisfied
10	PM Reporting for Engines	9	Deleted EU ID 3
11	Sulfur compounds emission standards	10	Deleted EU ID 3
11.1	Fuel burned in EU ID 2	10.1	No change
11.2 – 11.5	Fuel burned in EU ID 3	No equivalent	EU ID 3 removed from facility
12 and 12.1	Incinerator source test	11 and 11.1	No changes
13	Incinerator operation report	12	No changes
14 – 14.4	Insignificant emission units	13 – 13.4	No changes
15 – 18	40 C.F.R. 60.7 requirements	14 – 17	No changes
19	NSPS Subpart A Source Tests	18	Deleted EU ID 2. Requirements specified in 40 CFR 60, Subpart IIII
20	Good air pollution control practice	19	No change
21	Credible evidence	20	No change
22	Concealment of Emissions	21	Corrected referenced conditions
23 – 23.2	NSPS Subpart A Monitoring	22 – 22.2	No change
23.3 – 23.3.a	CMS operation	22.3	Merged 23.3 and 23.3.a.
23.4 – 23.4c	Reducing CMS data in 40 C.F.R. 60.13(h)	22.4 – 22.4.c	Revised to reflect revisions in 40 C.F.R. 60.13(h)

[6] This table does not include all standard and general conditions.

AQ0245TVP02 Condition No.	Description of Requirement	AQ0245TVP03 Condition No.	How Condition was Revised
24 – 24.6	NSPS Subpart O requirements for incinerator	23 – 23.6	No changes
25	NSPS Subpart IIII General Requirements	24	No change
25.1	Operation, maintenance, and emission-related settings	24.1	Revised to reflect changes in federal regulation
25.2	Compliance with applicable provisions in NSPS Subpart A	24.4	No change
25.3	Initial Notification	No equivalent	Deleted, EU ID 2 is emergency engine
26 – 26.3	Fuel Requirements	25 – 25.1.	Revised to reflect changes in regulation
No equivalent	Retention of fuel records	25.2	Gap-filling to facilitate compliance
27 and 27.1	Emission Standards for emergency engine EU ID 2	26	Merged Conditions 27 and 27.1. Deleted wrong footnote.
No equivalent	Operating Requirements for emergency engine EU ID 2	27 – 27.3	Revised to reflect changes in federal regulation
28 – 28.3	Monitoring & Recordkeeping	28 – 28.3	Revised to fit Subpart IIII's new language for emergency engines
No equivalent	NSPS Subpart IIII Reporting	29	To fill gap in reporting
No equivalent	NSPS Subpart MMMM	30 - 35	NSPS Subpart MMMM requirements
29 - 31	40 C.F.R. 61, Subpart A	36 - 38	No change
32 - 35	40 C.F.R. 61, Subpart C (Be)	39 - 42	No change
36	40 C.F.R. 61, Subpart E Hg)	43	No change
37	40 C.F.R. 63, Subpart A	44	Deleted EU ID 3 and applied only to EU ID 2
38 – 38.1	40 C.F.R. 63, Subpart ZZZZ	45	
38.2 – 38.9	Subpart ZZZZ Requirements for EU ID 3	No equivalent	EU ID 3 is no longer at the stationary source
43.1	Assessable emissions	54.1	Revised from 204 tpy to 69 tpy
45	Good Air Pollution Control Practice	No equivalent	EU ID 3 is no longer at the stationary source
66.1	PM Calculation Equation	71.1	Equation was stripped in pdf version of AQ0245TVP02
66.2 and 66.2a	PM Standards for Incinerator	71.2	Merged 66.2 and 66.2a
66.2b – 66.2.d	Incinerator PM Calculations	71.2.a – 71.2.c	No change
66.2e.	Opacity Determination	71.2.d	Corrected referencing
86	Table D – Permit Shields	91	Deleted regulations that are obviously not applicable

NON-APPLICABLE REQUIREMENTS

This section discusses standard conditions that have been removed from the permit or are not included for specific reasons. **Table I** (Permit Shield Granted) presents requirements that do not apply to the stationary source.

- **Compliance Assurance Monitoring, 40 C.F.R. 64**: This rule applies to emission units which use a control device to achieve compliance with a federal emission limitation or standard and have pre-control device emissions greater than 100 tons per year. The EU ID 1 has a control equipment to control PM emissions but the pre-control emissions of PM from EU ID 1 are less than 100 tpy.

- **Risk Management Plan, 40 C.F.R. 68:**: The stationary source is not subject to the general duty clause under the Clean Air Act Section 112(r)(1) (40 C.F.R. 68.10) because it does not have a threshold quantity of a regulated substance in a process as determined in 40 C.F.R. 68.115.

STATEMENT OF BASIS FOR THE PERMIT CONDITIONS

Each permit is required to contain a discussion of all applicable requirements as set forth in 40 C.F.R. 71.6(a) adopted in 18 AAC 50.040(j). The State and Federal regulations for each condition are cited in Operating Permit No. AQ0245TVP03. This Statement of Basis provides the legal and factual basis for each term and condition as set forth in 40 C.F.R. 71.6(a)(1)(i).

Conditions 1, 3 through 5. **Visible Emissions Standard and MR&R**

Legal Basis: These conditions ensure compliance with the applicable requirements in 18 AAC 50.055(a).

- 18 AAC 50.055(a) applies to the operation of fuel-burning equipment and industrial processes. EU ID 2 is a fuel-burning equipment.

U.S. EPA incorporated these standards as revised in 2002 into the SIP effective September 13, 2007.

Factual Basis: Condition 1 prohibits the Permittee from causing or allowing visible emissions in excess of the applicable standard in 18 AAC 50.055(a)(1).

MR&R requirements are listed in Conditions 3 through 5 of the permit.

These conditions have been adopted into regulation as Standard Conditions.

The Permittee must establish by actual visual observations that can be supplemented by other means, such as a defined Stationary Source Operation and Maintenance Program that the stationary source is in continuous compliance with the State's emission standards for visible emissions.

These conditions detail a stepwise process for monitoring compliance with the State's visible emissions for liquid and gas fired emission units. Equipment types covered by these conditions are internal combustion engines, turbines, heaters, boilers, and flares. Initial monitoring frequency schedules are established along with subsequent reductions or increases in frequency depending on the results of the self-monitoring program.

Reasonable action thresholds are established in these conditions that require the Permittee to progressively address potential visible emission problems from emission units either through maintenance programs and/or more rigorous tests that will quantify whether a specific emission standard has been exceeded.

Liquid Fuel-Fired Burning Equipment:

Monitoring – The Permittee is required to conduct visible emissions observations periodically.

Recordkeeping - The Permittee is required to record the results of the visible emission observations.

Reporting - The Permittee is required to report incidents when emissions in excess of the opacity threshold values have been observed. The Permittee is required to include copies of the results of all visible emission observations with the operating report.

Condition 2, Incinerator Visible Emissions and MR&R

Legal Basis: This visible emission standard under 18 AAC 50.050(a) applies to the operation of any incinerator in Alaska, including an air curtain incinerator.

Factual Basis: Condition 2 prohibits the Permittee from causing or allowing visible emissions in excess of the applicable standard in 18 AAC 50.050(a). Condition 2 applies to Federal and State visible emissions standards to each incinerator. The Permittee shall not cause or allow the equipment to violate these standards. The Permittee is required to monitor, record, and report according to Conditions 2 through 2.6.

Conditions 6, 8 and 9, PM Standard

Legal Basis: These conditions ensure compliance with the applicable requirement in 18 AAC 50.055(b). This requirement applies to operation of all industrial processes and fuel burning equipment in Alaska. EU ID 2 is a fuel-burning equipment.

These PM standards also apply because they are contained in the federally approved SIP effective September 13, 2007.

Factual Basis: Condition 6 prohibits emissions in excess of the state PM (also called grain loading) standard applicable to fuel-burning equipment. The Permittee shall not cause or allow fuel-burning equipment to violate this standard.

MR&R requirements are listed in Conditions 6, 8 and 9.

The Permittee must establish by actual visual observations which can be supplemented by other means, such as a defined Operation and Maintenance Program that the emission unit is in continuous compliance with the State's emission standards for PM.

Liquid Fuel-Fired Burning Equipment:

Monitoring – The Permittee is required to conduct PM source testing if threshold values for opacity are exceeded.

Recordkeeping - The Permittee is required to record the results of PM source tests.

Reporting - The Permittee is required to report: 1) incidents when emissions in excess of the opacity threshold values have been observed, 2) and results of PM source tests. The Permittee is required to include copies of the results of all visible emission observations with the operating report.

Condition 7, Incinerator PM Emissions Standard and MR&R

Legal Basis: Condition 7 ensures compliance with the incinerator PM standards under 18 AAC 50.050(b). The PM emission standard listed in Table B for this permit applies to the operation of the incinerator based on its rated capacity. U.S. EPA incorporated these standards as revised in 2002 into the SIP effective September 13, 2007.

Factual Basis: The condition requires the Permittee to comply with the PM emission standards applicable to incinerators based upon rated capacity. The Permittee may not cause or allow the affected incinerator to violate this standard.

The Permittee is required to monitor, record, and report according to Conditions 7.1 through 7.3.

Condition 10, Sulfur Compound Emissions

Legal Basis: This condition requires the Permittee to comply with the sulfur compound emission standard for all fuel-burning equipment and industrial processes in the State of Alaska. EU ID 2 is a fuel-burning equipment.

These sulfur compound standards also apply because they are contained in the Federally approved SIP effective September 13, 2007.

Factual Basis: The condition requires the Permittee to comply with the sulfur compound emission standard applicable to fuel-burning equipment. The Permittee may not cause or allow the affected equipment to violate this standard.

SO_2 comes from the sulfur in the fuel oil.

Liquid Fuels:

For oil fired fuel burning equipment, the MR&R conditions are Standard Permit Conditions XI and XII adopted into regulation pursuant to AS 46.14.010(e). These conditions have been simplified in this permit. The permit requires the Permittee to burn only ultra low-sulfur diesel in the EU ID 2 and keep records of the fuel grades received at the stationary source. The Department concludes that the standard conditions as modified meets the requirements of 40 C.F.R. 71.6(a)(3).

Conditions 11 and 12, Pre-Construction Permit Requirements

Legal Basis: The Permittee is required to comply with all effective stationary source-specific requirements that were carried forward from previous EPA PSD permits, SIP approved permits to operate issued before January 18, 1997, SIP approved construction permit(s), SIP approved minor permits, operating permits issued between January 18, 1997 and September 30, 2004, or owner requested limits established under 18 AAC 50.225. These requirements include Best Available Control Technology limits, limits to ensure compliance with the attainment or maintenance of ambient air quality standards or maximum allowable ambient concentrations, and owner requested limits. State pre-construction requirements apply because they were originally developed through case-by-case action under a Federally approved SIP or approved Operating Permit program. EPA approved the latest SIP effective September 13, 2007.

Conditions 11 and 12 were carried forward from the former AQC Permit No. 9521-AA001 into Operating Permit AQ0245TVP02 and again into Operating Permit AQ0245TVP03.

Factual Basis: Condition 11 outlines the operational parameters that must be measured at the facility and the methods to be employed in testing those parameters.

Condition 12 requires that the Permittee report several operating parameters with the operating report. These parameters provide information necessary to determine compliance with applicable standards. The Department gap-filled this condition to require submission of records of operation maintained by the Permittee in order to maintain a demonstration of compliance as set forth in 40 C.F.R. 71.6(a)(3)(i).

Condition 13, Insignificant Emission Units

Legal Basis: The Permittee is required to meet state emission standards set out in 18 AAC 50.055 for all industrial processes fuel-burning equipment, and incinerators regardless of size.

Factual Basis: The condition re-iterates the emission standards and require compliance for insignificant emission units. The Permittee may not cause or allow their equipment to violate these standards. Insignificant emission units are not listed in the permit unless specific monitoring, recordkeeping and reporting are necessary to ensure compliance.

The Department finds that the insignificant units at this stationary source do not require specific monitoring, recordkeeping and reporting to ensure compliance under these conditions.

Condition 13.4.a requires certification that the units did not exceed state emission standards during the previous year and did not emit any prohibited air pollution.

Conditions 14 – 22, NSPS Subpart A Requirements

Legal Basis: The Permittee must comply with those New Source Performance Standard (NSPS) provisions incorporated by reference the NSPS effective July 1, 2007, for specific industrial activities, as listed in 18 AAC 50.040.

Most affected facilities (with the exception of some storage tanks) subject to an NSPS are subject to Subpart A. At this stationary source, EU ID 1 is subject to NSPS Subpart O and Subpart MMMM. EU ID 2 is subject to NSPS Subpart IIII. Therefore EU IDs 1 and 2 are subject to Subpart A. EU ID 2 is subject to NSPS Subpart IIII and exempt from certain provision of Subpart A per 40 C.F.R. 60.4218 because those provisions are also in NSPS Subpart IIII.

Conditions 14.1 through 14.3 - The Permittee has already complied with the notification requirements in 40 C.F.R. 60.7 (a)(1) - (4) for EU ID 1. However, the Permittee is still subject to these requirements in the event of a new NSPS affected facility[7] or in the event of a modification or reconstruction of an existing facility[8] into an affected facility. The Permittee is not required to submit an initial notification for EU ID 2 as per 40 C.F.R. 60.4214(b).

Conditions 14.4 through 14.6 - The requirements to notify the EPA and the Department of the date of a continuous monitoring system performance demonstration, no less than 30 days before demonstration commences (40 C.F.R. 60.7(a)(5) – (7)) are applicable to EU ID 1 because Condition 2 requires a COMS as an NSPS requirement.

Condition 14.7- The requirements to notify the EPA and the Department of any proposed replacement of components of an existing facility (40 C.F.R. 60.15) apply in the event that the fixed capital cost of the new components exceeds 50 percent of the fixed capital cost that would be required to construct a comparable entirely new facility.

[7] *Affected facility* means, with reference to a stationary source, any apparatus to which a standard applies, as defined in 40 C.F.R. 60.2, effective 7/1/07.

[8] *Existing facility* means, with reference to a stationary source, any apparatus of the type for which a standard is promulgated in this part, and the construction or modification of which was commenced before the date of proposal of that standard; or any apparatus which could be altered in such a way as to be of that type, as defined in 40 C.F.R. 60.2, effective 7/1/07.

Condition 15 - Start-up, shutdown, or malfunction record maintenance requirements in 40 C.F.R. 60.7(b) are applicable to EU ID 1. EU ID 2 is subject to NSPS Subpart IIII and exempt from certain provision of Subpart A per 40 C.F.R. 60.4218 because those provisions are also in NSPS Subpart IIII.

Conditions 16 and 17 - NSPS excess emission reporting requirements and summary report form in 40 C.F.R. 60.7(c) & (d) are applicable to EU ID 1 The Department has included in Attachment A of the permit a copy of the Federal EEMSP summary report form for use by the Permittee.

Recordkeeping requirements in 40 C.F.R. 60.7(f) are applicable to EU ID 1. (Satisfied by Condition 72)

Condition 18 - The Permittee has already complied with the initial performance test requirements in 40 C.F.R. 60.8 for EU ID 1. However, the Permittee is still subject to these requirements in the event of a new NSPS affected facility, in the event of a modification or reconstruction of an existing facility into an affected facility or at such other times as may be required by EPA.

Condition 19 - Good air pollution control practices in 40 C.F.R. 60.11 are applicable to EU ID 1. The requirements of 40 C.F.R. 60.11 do not apply to EU ID 2 per Table 8 of NSPS Subpart IIII.

Condition 20 - states that any credible evidence may be used to demonstrate compliance or establishing violations of relevant NSPS standards for EU ID 1. The requirements of 40 C.F.R. 60.11 do not apply to EU ID 2 per Table 8 of NSPS Subpart IIII.

Condition 21 - Concealment of emissions prohibitions in 40 C.F. R. 60.12 are applicable to EU IDs 1 and 2.

Condition 22 - Monitoring requirements in 40 C. F. R. 60.13 are applicable to EU ID 1 because a CMS is used to determine compliance with 40 C.F.R. 60, Subpart O emission standards and may be used to determine compliance with Subpart MMMM emission limits.

Factual Basis: Subpart A contains the general requirements applicable to all affected facilities (emission units) subject to NSPS. In general, the intent of NSPS is to provide technology-based emission control standards for new, modified and reconstructed affected facilities.

Condition 23, NSPS Subpart O Requirements

Legal Basis: This condition prohibits the Permittee from exceeding emission standards set out in Subpart O. The Subpart applies to incinerators that were constructed or modified after July 11, 1973 and burn wastes containing more than 10 percent sewage sludge (dry basis) from municipal sewage treatment plants or that charges more than 1,000 kg per day municipal sewage sludge (dry basis).

- EU ID 1 meets these criteria and is therefore subject to NSPS Subpart O.

Factual Basis: This condition incorporates the Subpart O PM and visible emissions standards. The Permittee may not cause or allow EU ID 1 to violate these standard. This condition also provides MR&R specifically called out for within the subpart and periodic emission testing developed to fill gaps in periodic monitoring under this subpart.

EU ID 1 shall not discharge or cause the discharge into the atmosphere of:

1) Particulate matter greater than 0.65 g/kg of dry sludge input (1.30 lb/ton of dry sludge input).

2) Visible emissions, excluding condensed water vapor, with greater than 20 percent opacity, averaged over any six consecutive minutes.

This condition also provides MR&R specifically called out for within the subpart. Periodic source testing under Conditions 7.1 and 34 will demonstrate compliance with the particulate matter standard of Condition 23.1.

The Permittee shall comply with the monitoring and recordkeeping requirements and procedures of 40 C.F.R. 60.153; and the reporting requirements of 40 C.F.R. 60.155(a), and if necessary, 40 C.F.R. 60.155(b).

The 2007 source test reported an incinerator particulate matter emission rate of 0.245 lbs/dry ton of biosolids. The 2012 source test reported an incinerator particulate matter emission rate of 0.441 lb/dry ton of biosolids. Both of these are less than the 0.75 lbs/dry tons of biosolids threshold limit and qualifies AWWU for the monitoring of operation exemptions provided in NSPS Subpart O – 40 C.F.R. 60.153(d). The Permittee requested the Subpart O monitoring exemptions specified below be applied to the John M. Asplund Water Pollution Control Facility Title V operating permit in the renewal application submitted January 29, 2008. However, at any time the Permittee exceeds the NSPS monitoring threshold (i.e., 0.75 lb/dry tons biosolids) based on a periodic source test, such exemptions below shall no longer apply to this stationary source:

1. Continuous operation of the monitoring devices and data recorders in 40 C.F.R. 60.153(a)(1), 40 C.F.R. 60.153(b)(3), and 40 C.F.R. 60.153(b)(4) shall not be required.

2. Daily sampling and analysis of sludge feed in 40 C.F.R. 60.153(b)(5) shall not be required.

3. Recordkeeping specified in 40 C.F.R. 60.153(c)(3) shall not be required.

Note: The owner or operator of any multiple hearth, fluidized bed, or electric sludge incinerator from which the average particulate matter emission rate measured during the performance test performed under 40 C.F.R. 60.154(d) exceeds 0.38 g/kg of dry sludge input (0.75 lb/ton of dry sludge input) shall include in the report for each calendar day that a decrease in scrubber pressure drop or increase in oxygen content of exhaust gas is reported, the records in Condition 23.6.b.

Conditions 24 - 29, NSPS Subpart IIII Requirements

Legal Basis: NSPS Subpart IIII applies to stationary compression ignition internal combustion engines (CI ICE) that commence construction, modification, or reconstruction after July 11, 2005 where the stationary CI ICE are manufactured after April 1, 2006 for non-fire pump engines and after July 1, 2006 for certified fire pump engines. EU ID 2 is subject to Subpart IIII under 40 C.F.R. 60.4200 because it is a stationary CI ICE constructed after July 11, 2005 and manufactured after April 1, 2006. EU ID 2 is an emergency generator and a non-fire pump engine..

Factual Basis: These conditions incorporate the Subpart IIII emissions standards applicable to EU ID 2. The Permittee may not cause or allow EU ID 2 to violate these standards. These conditions also provide MR&R specifically called out for within the Subpart. The Permittee is required to operate and maintain the stationary CI ICE according to the manufacturer's written instructions or procedures developed by the Permittee that are approved by the engine manufacturer. The Permittee is required to monitor and record the monthly engine hours of operation and the rolling 12-month hours of operation. The Permittee shall certify that the emission standards for new nonroad CI engines in 40 C.F.R. 60.4202 are met, for all pollutants, for the same model year and maximum engine power for their 2007 model year and later emergency stationary CI ICE. The engine must be installed and configured according to the manufacturer's specifications. The Permittee must install a non-resettable hour meter prior to startup of the engine. The requirement in Condition 29 is added to fill gap in the reporting requirement under this Subpart.

Conditions 30 - 35, 40 C.F.R. 60, Subpart MMMM Requirements, for EU ID 1

Legal Basis: 40 C.F.R. 60, Subpart MMMM requirements are not applicable requirements at the time of the public notice. The State of Alaska and the EPA do not yet have a final plan to implement the requirements. At the request of the Permittee**,** the Department included the requirements of 40 C.F.R. 60, Subpart MMMM. The Permittee must comply with these requirements when the final federal plan for the implementation of 40 C.F.R. 60, Subpart MMMM becomes applicable.

Factual Basis: These conditions include 40 C.F.R. 60, Subpart MMMM requirements. Condition 30 requires the Permittee to comply with the requirements when the final federal plan for the implementation of 40 C.F.R. 60, Subpart MMMM becomes effective. Condition 31 contains operator training and qualifications. Condition 32 contains emission limits and standards. Condition 33 contains operating limits. Condition 34 contains performance testing and monitoring. Condition 35 contains recordkeeping and reporting requirements.

Conditions 36 - 38, NESHAP Requirements, 40 C.F.R. Part 61, Subpart A, for EU ID 1

Legal Basis: The Department has incorporated by reference the NESHAP requirements of 40 C.F.R. Part 61 effective July 16, 2007, for specific industrial activities, as listed in 18 AAC 50.040(b). Most sources subject to a NESHAPs requirement are subject to Subpart A. EU ID 1 is subject to NESHAP Part 61 Subparts C and E and 3 is therefore subject to the provisions of Subpart A.

Factual Basis: These conditions incorporate applicable 40 C.F.R. 61 requirements. The Permittee may not cause or allow violations of these prohibitions.

Conditions 39 - 42, NESHAP for Beryllium, 40 C.F.R. Part 61, Subpart C, for EU ID 1

Legal Basis: Applies to incinerators which process beryllium-containing wastes. Domestic wastewater solids contain beryllium and therefore the SSI is subject to this subpart.

Factual Basis: These conditions incorporate the portions of Subpart C applicable to domestic wastewater solids incineration operations. The Permittee may not cause or allow EU ID 1 to violate these standards. The Permittee may not change operations which would increase potential emissions of beryllium without calculating a new emission level for beryllium.

The Permittee is required to comply with the beryllium standard for EU ID 1:

In accordance with 40 C.F.R. 61.32(c), the Permittee is prohibited from burning beryllium and/or beryllium-containing waste, except propellants, and emissions from EU ID 1 must comply with the standard. The Permittee must maintain records of emissions testing results in accordance with 40 C.F.R. 61.33(e).

Condition 43, NESHAP for Mercury, 40 C.F.R. Part 61, Subpart E, for EU ID 1

Legal Basis: The provisions of 40 C.F.R. 61, Subpart E apply to stationary sources which process mercury ore to recover mercury, use mercury chlor-alkali cells to produce chlorine gas and alkali metal hydroxide, and incinerate or dry wastewater treatment plant sludge. EU ID 1 incinerates wastewater treatment plant sludge.

Factual Basis: The stationary source incinerates wastewater treatment plant sludge and is therefore subject to the requirements of 40 C.F.R. 61, Subpart E. The Permittee is required to comply with the following mercury standard for EU ID 1:

The Permittee is required to comply with the mercury standard for EU ID 1:

The Permittee is required to comply with the stack sampling recordkeeping requirements of 40 C.F.R. 61.53(d); the sludge sampling and charging rate determination requirements of 40 C.F.R. 61.54(e) and (g); and the monitoring of emissions and operations requirements of Method 105 of 40 C.F.R. Part 60, Appendix B or the procedures specified in 40 C.F.R. 61.53(d)(2) and (4) and the results of monitoring shall be reported and retained according to 40 C.F.R. 61.53(d)(5) and (6) or 40 C.F.R. 61.54(f) and (g).

Condition 44, NESHAP Requirements – 40 C.F.R. Part 63, Subpart A, for EU ID 2

Legal Basis: The Department has incorporated by reference the NESHAP requirements effective July 16, 2007, for specific industrial activities, as listed in 18 AAC 50.040(c).

Most sources subject to a NESHAPs requirement are subject to Subpart A. EU ID 2 is subject to NESHAP Part 63 Subpart ZZZZ and therefore subject to the provisions of Subpart A listed in Table 8 of Subpart ZZZZ. EU ID 2 is exempted from the requirements of Subpart A by §63.6590(c).

Factual Basis: This condition incorporates applicable 40 C.F.R. 63 requirements. The Permittee may not cause or allow violations of these prohibitions.

Condition 45, NESHAP Requirements – 40 C.F.R. Part 63, Subpart ZZZZ, for EU ID 2

Legal Basis: The provisions of 40 C.F.R. 63, Subpart ZZZZ apply to owners or operators of a stationary Reciprocating Internal Combustion Engine (RICE), except if the stationary RICE is being tested at a stationary RICE test cell/stand.

Factual Basis: This condition incorporates applicable 40 C.F.R. Part 63, Subpart ZZZZ requirements. The Permittee may not cause or allow violations of these prohibitions.

The diesel-fired emergency generator EU ID 2 is subject to 40 C.F.R. Part 63, Subpart ZZZZ. In accordance with 40 C.F.R. 63.6590(a)(2)(iii), EU ID 2 is a new stationary RICE because it is located at an area source of HAPs and constructed after June 12, 2006. Pursuant to 40 C.F.R. 63.6590(c), an affected source that is a new stationary RICE located at an area source (i.e., EU ID 2) must meet the requirements of 40 C.F.R. 63, Subpart ZZZZ by meeting the requirements of 40 C.F.R. 60, Subpart IIII. No further requirements apply for such engines under 40 C.F.R. Part 63, Subpart ZZZZ. The requirements of NSPS Subpart IIII for EU ID 2 have been added to the permit under Conditions 24 through 29.

Condition 46, Asbestos NESHAP

Legal Basis: The condition requires the Permittee to comply with asbestos demolition or renovation requirements in 40 C.F.R. 61, Subpart M. This condition ensures compliance with the applicable requirement in 18 AAC 50.040(b)(1) and (2)(F). The asbestos demolition and renovation requirements apply if the Permittee engages in asbestos demolition or renovation.

Factual Basis: Because these regulations include adequate monitoring and reporting requirements and because the Permittee is not currently engaged in such activity, simply citing the regulatory requirements is sufficient to ensure compliance with these Federal regulations.

Condition 47, Protection of Stratospheric Ozone, 40 C.F.R. 82

Legal Basis: Condition 47.1 ensures compliance with the applicable requirement in 18 AAC 50.040(d) and applies if the Permittee engages in the recycling or disposal of certain refrigerants. The condition requires the Permittee to comply with the standards for recycling and emission reduction of refrigerants set forth in 40 C.F.R. 82, Subpart F that will apply if the Permittee uses certain refrigerants.

Conditions 47.2 and 47.3 prohibitions also apply to all stationary sources that use halon for extinguishing fires and inert gas to reduce explosion risk. The condition prohibits the Permittee from causing or allowing violations of these prohibitions. The John M. Asplund Water Pollution Control Facility uses halon and is therefore subject to the Federal regulations contained in 40 C.F.R. 82.

Factual Basis: Because these regulations include adequate monitoring and reporting requirements and because the Permittee is not currently engaged in such activity, simply citing the regulatory requirements is sufficient to ensure compliance with this Federal regulation. This condition also incorporates applicable 40 C.F.R. 82 requirements. The Permittee may not cause or allow violations of these prohibitions.

Condition 48, NESHAPs Applicability Determinations

Legal Basis: This condition requires the Permittee to determine rule applicability of NESHAPS, and requires record keeping for those determinations if required by the source classification.

Factual Basis: The Permittee has conducted an analysis of the stationary source and determined that it is not a major HAPs stationary source based on emissions. This condition requires the Permittee to notify the Department and Administrator if the stationary source becomes an affected facility and to keep and make available to the Department copies of the major stationary source determination.

Condition 49, NSPS and NESHAP Reports

Legal Basis: The Permittee is required to provide the Federal Administrator and Department a copy of each emission unit report for units subject to NSPS or NESHAP Federal regulations under 18 AAC 50.326(j)(4). 40 C.F.R. 70 Appendix A documents that EPA fully approved the Alaska operating permit program effective November 30, 2001.

Factual Basis: The condition supplements the specific reporting requirements in 40 C.F.R. 60, 40 C.F.R. 61, and 40 C.F.R. 63. The reports themselves provide monitoring for compliance with this condition.

Conditions 50 - 52, Standard Terms and Conditions

Legal Basis: These are standard conditions required under 18 AAC 50.345(a) and (e)-(g) for all operating permits. This provision is incorporated in the federally approved Alaska operating permit program of November 30, 2001, as updated effective November 9, 2008.

Factual Basis: These are standard conditions that apply to all permits.

Condition 53, Administration Fees

Legal Basis: This condition ensures compliance with the applicable requirement in 18 AAC 50.400-405 as derived from AS 46.14.130. This condition requires the Permittee, owner, or operator to pay administration fees as set out in regulation. Paying administration fees is required as part of obtaining and holding a permit with the Department or as a fee for a Department action.

Factual Basis: The owner or operator of a stationary source who is required to apply for a permit under AS 46.14.130 shall pay to the Department all assessed permit administration fees. The regulations in 18 AAC 50.400-405 specify the amount, payment period, and the frequency of fees applicable to a permit action.

Conditions 54 - 55, Emission Fees

Legal Basis: These conditions ensure compliance with the applicable requirement in 18 AAC 50.410-420. The regulations require all permits to include due dates for the payment of fees and any method the Permittee may use to re-compute assessable emissions.

Factual Basis: These emission fee conditions are Standard Permit Condition I under 18 AAC 50.346(b) adopted pursuant to AS 46.14.010(e). Except for the modification noted in the last paragraph of this "Factual Basis", the Department determined that these standard conditions adequately meet the requirements of AS 46.14.250. No emission unit or stationary source operational or compliance factors indicate that unit-specific or stationary-source specific conditions would better meet these requirements. Therefore, the Department concluded that the standard conditions meet the requirements of AS 46.14.250.

These standard conditions require the Permittee to pay fees in accordance with the Department's billing regulations. The billing regulations set the due dates for payment of fees based on the billing date.

The default assessable emissions are generally potential emissions of each air pollutant in excess of 10 tons per year authorized by the permit (AS 46.14.250(h)(1)(A)).

The conditions allow the Permittee to calculate actual annual assessable emissions based on previous actual annual emissions. According to AS 46.14.250(h)(1)(B), assessable emissions are based on each air pollutant. Therefore, fees based on actual emissions shall be paid on any pollutant emitted whether or not the permit contains any limitation of that pollutant.

This standard condition specifies that, unless otherwise approved by the Department, calculations of assessable emission based on actual emissions use the most recent previous calendar year's emissions. Since each current year's assessable emission are based on the previous year, the Department will not give refunds or make additional billings at the end of the current year if the estimated emissions and current year actual emissions do not match.

The Department modified the standard condition to correct Condition 55.2 such that it referenced "submitted" (i.e., postmarked) rather than "received" in accordance with the timeframe of Condition 55.1.

Condition 56, Dilution

Legal Basis: This condition prohibits the Permittee from using dilution as an emission control strategy as set out in 18 AAC 50.045(a). This state regulation applies to the Permittee because the Permittee is subject to emission standards in 18 AAC 50.

Factual Basis: The condition prohibits the Permittee from diluting emissions as a means of compliance with any standard in 18 AAC 50.

Condition 57, Reasonable Precautions to Prevent Fugitive Dust

Legal Basis: This condition requires the Permittee to use reasonable precautions when handling, storing or transporting bulk materials or engaging in an industrial activity in accordance with the applicable requirement in 18 AAC 50.045(d). Bulk material handling requirements apply to the Permittee because the Permittee will engage in bulk material handling, transporting, or storing; or will engage in industrial activity at the stationary source.

This condition applies to stationary source operating permits that do not have an approved dust control plan, and contain one of the following: coal-fired boilers; coal handling facilities; construction of gravel pads or roads that are part of a permitted stationary source or other construction that has the potential to generate fugitive dust that reaches ambient air; commercial/industrial/municipal solid waste, air curtain, and medical waste incinerators; SSIs not using wet methods to handle that ash; mines; urea manufacturing; soil remediation units; or dirt roads under the control of the operator with frequent vehicle traffic.

Factual Basis: The condition requires the Permittee to comply with 18 AAC 50.045(d), and take reasonable action to prevent PM from being emitted into the ambient air.

The Department adopted this standard condition as Standard Permit Condition X under 18 AAC 50.346(c) pursuant to AS 46.14.010(e). The Department determined that this standard condition adequately meets the requirements of 40 C.F.R. 71.6(a)(3). No emission unit or stationary source operational or compliance factors indicate that unit-specific or stationary-source specific conditions would better meet these requirements.

Condition 58, Stack Injection

Legal Basis: This condition ensures compliance with the applicable requirement in 18 AAC 50.055(g). It prohibits the Permittee from releasing materials other than process emissions, products of combustion, or materials introduced to control pollutant emissions from a stack (i.e. disposing of material by injecting it into a stack). Stack injection requirements apply to the stationary source because the stationary source contains a stack or unit constructed or modified after November 1, 1982.

Factual Basis: No specific monitoring for this condition is practical. Compliance is ensured by inspections, because the unit or stack would need to be modified to accommodate stack injection.

Condition 59, Air Pollution Prohibited

Legal Basis: This condition ensures compliance with the applicable requirement in 18 AAC 50.110. The condition prohibits the Permittee from causing any emission which is injurious to human health or welfare, animal or plant life, or property, or which would unreasonably interfere with the enjoyment of life or property. Air Pollution Prohibited requirements apply to the stationary source because the stationary source will have emissions.

Factual Basis: While the other permit conditions and emissions limitation should ensure compliance with this condition, unforeseen emission impacts can cause violations of this standard. These violations would go undetected except for complaints from affected persons. Therefore, to monitor compliance, the Permittee must monitor and respond to complaints.

ADEC adopted this standard condition into 18 AAC 50.346(a) pursuant to AS 46.14.010(e). The Department determined that this condition adequately meet the requirements of 40 C.F.R. 71.6(a)(3). No emission unit or stationary source operational or compliance factors indicate that unit-specific or stationary-source specific conditions would better meet these requirements.

The Permittee is required to report any complaints and injurious emissions. The Permittee must keep records of the date, time, and nature of all complaints received and summary of the investigation and corrective actions undertaken for these complaints, and to submit copies of these records upon request of the Department.

Condition 60, Technology-Based Emission Standard

Legal Basis: The Permittee is required to take reasonable steps to minimize emissions if certain activity causes an exceedance of any technology-based emission standard in this permit. This condition ensures compliance with the applicable requirement in 18 AAC 50.235. Technology Based Emission Standard requirements apply to the stationary source because the stationary source contains equipment subject to a technology-based emission standard, such as Best Available Control Technology, Maximum Achievable Control Technology, Lowest Achievable Emission Rate, NSPS or other "technologically feasible" determinations.

Factual Basis: The conditions of this permit list applicable technology-based emission standards and require excess emission reporting for each standard in accordance with Condition 76. Excess emission reporting under Condition 76 requires information on the steps taken to minimize emissions. Monitoring of compliance for this condition consists of the report required under Condition 76.

Condition 61, Open Burning

Legal Basis: The condition requires the Permittee to comply with the regulatory requirements when conducting open burning at the stationary source. This condition ensures compliance with the applicable requirement in 18 AAC 50.065. The open burning state regulation in 18 AAC 50.065 applies to the Permittee if the Permittee conducts open burning at the stationary source.

Factual Basis: No specific monitoring is required for this condition. Condition 61.1 requires the Permittee to keep "sufficient records" to demonstrate compliance with the standards for conducting open burning, but does not specify what these records should contain.

More extensive monitoring and recordkeeping is not warranted because the Permittee does not conduct open burning as a routine part of their business. Also, most of the requirements are prohibitions, which are not easily monitored. Compliance is demonstrated through annual certification required under Condition 78.

Condition 62, Requested Source Tests

Legal Basis: The Permittee is required to conduct source tests as requested by the Department. The Department adopted this condition under 18 AAC 50.345(k) as part of its operating permit program approved by EPA November 30, 2001.

Factual Basis: This condition ensures compliance with the applicable requirement in 18 AAC 50.220(a) and applies because this is a standard condition to be included in all operating permits. Monitoring consists of conducting the requested source test.

Conditions 63 - 65, Operating Conditions, Reference Test Methods, Excess Air Requirements

Legal Basis: These conditions ensure compliance with the applicable requirement in 18 AAC 50.220(b) and apply because the Permittee is required to conduct source tests by this permit. The Permittee is required to conduct source tests as set out in Conditions 63 through 65.

Factual Basis: These conditions supplement the specific monitoring requirements stated elsewhere in this permit. Compliance monitoring with Conditions 63 through 65 consist of the test reports required by Condition 70.

Condition 66, Test Exemption

Legal Basis: This condition ensures compliance with the applicable requirement in 18 AAC 50.345(a) and applies when the unit exhaust is observed for visible emissions.

Factual Basis: As provided in 18 AAC 50.345(a), amended November 9, 2008, the requirements for test plans, notifications and reports do not apply to visible emissions observations by smoke readers, except in connection with required particulate matter testing.

Conditions 67 - 70, Test Deadline Extension, Test Plans, Notifications and Reports

Legal Basis: These conditions ensure compliance with the applicable requirement in 18 AAC 50.345(l)-(o) and apply because the Permittee is required to conduct source test by this permit.

Factual Basis: Standard conditions 18 AAC 50.345(l) - (o) are incorporated through these conditions. These standard conditions supplement specific monitoring requirements stated elsewhere in this permit. The source test itself monitors compliance with this condition.

Condition 71, PM Calculations

Legal Basis: This condition requires the Permittee to reduce PM data in accord with 18 AAC 50.220(f). It applies when the Permittee tests for compliance with the PM standards in 18 AAC 50.050 or 50.055.

Factual Basis: The condition incorporates a regulatory requirement for PM source tests. The Permittee must use the equations given in this condition to calculate the PM emission concentration from the source test results. This condition supplements specific monitoring requirements stated elsewhere in this permit. In addition, since EU ID 1 is subject to the NSPS, Subpart O which has its own PM emission compliance equations, the Department has added such equations and compliance determination method to this condition and cited the appropriate provisions of Subpart O.

Condition 72, Recordkeeping Requirements

Legal Basis: Applies because the Permittee is required by the permit to keep records.

Factual Basis: The condition restates the regulatory requirements for recordkeeping, and supplements the recordkeeping defined for specific conditions in the permit. The records being kept provide an evidence of compliance with this requirement.

Condition 73, Certification

Legal Basis: This condition requires the Permittee to comply with the certification requirement in 18 AAC 50.205 and applies to all Permittees under EPA's approved operating permit program of November 30, 2001.

Factual Basis: This standard condition is required in all operating permits under 18 AAC 50.345(j). This condition requires the Permittee to certify any permit application, report, affirmation, or compliance certification submitted to the Department. To ease the certification burden on the Permittee, the condition allows the excess emission reports to be certified with the stationary source report, even though it must still be submitted more frequently than the stationary source operating report. This condition supplements the reporting requirements of this permit.

Condition 74, Submittals

Legal Basis: This condition requires the Permittee to comply with standardized reporting requirement in 18 AAC 50.326(j) and applies because the Permittee is required to send reports to the Department.

Factual Basis: This condition lists the Department's appropriate address for reports and written notices. The Permittee is required to submit an original and one copy of reports, compliance certifications, and other submittals required by this permit. Receipt of the submittal at the correct Department office is sufficient monitoring for this condition. This condition supplements the standard reporting and notification requirements of this permit.

Condition 75, Information Requests

Legal Basis: This condition requires the Permittee to submit requested information to the Department. This is a standard condition from 18 AAC 50.345(i) of the state approved operating permit program effective November 30, 2001.

Factual Basis: This condition requires the Permittee to submit information requested by the Department. Monitoring consists of receipt of the requested information.

Condition 76, Excess Emission and Permit Deviation Reports

Legal Basis: This condition requires the Permittee to comply with the applicable requirement in 18 AAC 50.235(a)(2) and 18 AAC 50.240. Also, the Permittee is required to notify the Department when emissions or operations deviate from the requirements of the permit.

Factual Basis: This condition satisfies two state regulations related to excess emissions - the technology-based emission standard regulation and the excess emission regulation. Although there are some differences between the regulations, the condition satisfies the requirements of each regulation.

The Department adopted this condition as Standard Permit Condition III under 18 AAC 50.346(c) pursuant to AS 46.14.010(e). The Department has determined that the standard conditions adequately meet the requirements of 40 C.F.R. 71.6(a)(3). No additional emission unit or stationary source operational or compliance factors indicate the unit-specific or stationary-source-specific conditions would better meet the requirements.

Therefore, the Department concludes that the standard condition meets the requirements of 40 C.F.R. 71.6(a)(3).

Section 13, Notification Form

The notification form contained in Standard Permit Condition IV meets the requirements of Chapter 50, Air Quality Control.

Condition 77, Operating Reports

Legal Basis: This condition ensures compliance with the applicable requirement in 18 AAC 50.346(b)(6) and applies to all permits.

Factual Basis: The condition restates the requirements for reports listed in regulation. The condition supplements the specific reporting requirements elsewhere in the permit. The reports themselves provide monitoring for compliance with this condition.

The Department used the Standard Permit Condition VII as adopted into regulation on August 20, 2008 pursuant to AS 46.14.010(e). The Department has determined that the standard conditions adequately meet the requirements of 40 C.F.R. 71.6(a)(3). No additional emission unit or stationary source operational or compliance factors indicate the unit-specific or stationary-source-specific conditions would better meet the requirements. Therefore, the Department concludes that the standard condition meets the requirements of 40 C.F.R. 71.6(a)(3). The Department deleted the text "*The Permittee may, upon consultation with the Compliance Technician regarding software compatibility, provide electronic copies of data reports, emission source test reports, or other records under a cover letter certified in accordance with Departmental submission requirements*." since it duplicates Condition 74.

For renewal permits, the condition specifies that for the transition periods between an expiring permit and a renewal permit the Permittee shall ensure that there is date-to-date continuity between the expired permit and the renewal permit such that the Permittee reports against the permit terms and conditions of the permit that was in effect during those partial date periods of the transition. No format is specified. The Permittee may provide one report accounting for each permit term or condition and the effective permit at that time. Alternatively, the Permittee may choose to provide two reports – one accounting for reporting elements of permit terms and conditions from the end date of the previous operating report until the date of expiration of the old permit, and a second operating report accounting for reporting elements of terms and conditions in effect from the effective date of the renewal permit until the end of the reporting period.

Condition 78, Annual Compliance Certification

Legal Basis: This condition ensures compliance with the applicable requirement in 18 AAC 50.040(j)(4) and applies to all Permittees.

Factual Basis: This condition specifies the periodic compliance certification requirements, and specifies a due date for the annual compliance certification. Each annual certification provides monitoring records for compliance with this condition.

Condition 78.2 provides clarification of transition periods between an expiring permit and a renewal permit to ensure that the Permittee certifies compliance with the permit terms and conditions of the permit that was in effect during those partial date periods involved in the transition. No format is specified: the Permittee may provide one report certifying compliance with each permit term or condition for each of the effective permits during the certification period, or may choose to provide two reports – one certifying compliance with permit terms and conditions from January 1 until the date of expiration of the old permit, and a second report certifying compliance with terms and conditions in effect from the effective date of the renewal permit until December 31.

The Permittee is required to submit to the Department an original and one copy of an annual compliance certification report. The Permittee may submit one of the required copies electronically at their discretion. This change more adequately meets the requirements of 18 AAC 50 and agency needs, as the Department can more efficiently distribute the electronic copy to staff in other locations. The Department deleted the text "*The Permittee, at their discretion, may submit one copy in electronic format (PDF or other Department compatible image format).*" since it duplicates Condition 74.

Condition 79, Emission Inventory Reporting

Legal Basis: This condition requires the Permittee to submit emissions data to the State to satisfy the Federal requirement to submit emission inventory data from point sources as required under 40 CFR 51.321 (6/10/02). It applies to sources defined as point sources in 40 C.F.R. 51.50. The State must report all data elements in Table 2A of Appendix A to Subpart A of 40 C.F.R. 51 to EPA (73 FR 76556).

Factual Basis: The emission inventory data is due to EPA 12 months after the end of the reporting year (40 CFR 51.30(a)(1) and (b)(1), 12/17/08). A due date of March 31 corresponds with sources reporting actual emissions for assessable emissions purposes and provides the Department sufficient time to enter the data into EPA's electronic reporting system.

The air emissions reporting requirements under 40 CFR Part 51 Subpart A apply to States; however, States rely on information provided by point sources to meet the reporting requirements of Part 51 Subpart A. In the past, the department has made information requests to point sources, to which the point source is obligated to reply under 18 AAC 50.200. The information requests occur on a routine basis as established by Part 51 Subpart A and consume significant staff resources. To increase governmental efficiency and reduce costs associated with information requests that occur on a routine basis, it has been determined that a standard permit condition best fulfills the need to gather the information needed to satisfy the requirements of Subpart A of 40 CFR 51.

To ensure that the Department's electronic system reports complete information to the National Emissions Inventory, Title V stationary sources classified as Type A in Table 1 of Appendix A to Subpart A of 40 CFR 51 are required to submit with each annual report all the data elements required for the Type B source triennial reports (see also Table 2A of Appendix A to Subpart A of 40 CFR Part 51). All Type A sources are also classified as Type B sources. However the department has streamlined the reporting requirements so Type A sources only need to submit a single type of report every year instead of both an annual report and a separate triennial report every third year.

Condition 80, Permit Applications and Submittals

Legal Basis: The Permittee may need to submit permit applications and related correspondence.

Factual Basis: Standard Permit Condition XIV directs the applicant to send copies of all application materials required to be submitted to the Department directly to the EPA, in electronic format if practicable. This condition shifts the burden of compliance from the Department to ensure that copies of application materials are submitted to EPA by transferring that responsibility to the Permittee.

Conditions 81 - 83, Permit Changes and Revisions Requirements

Legal Basis: The Permittee is obligated to notify the Department of certain off-permit source changes and operational changes under18 AAC 50.326(j)(4). 40 C.F.R. 71.6(a)(10), (12), and (13) incorporated by reference under 18 AAC 50.040(j) require these provisions within this permit. 40 C.F.R. 70 Appendix A documents that EPA fully approved the Alaska operating permit program effective November 30, 2001.

Factual Basis: These conditions are required in 40 C.F.R. 71.6 for all operating permits to allow changes within a permitted stationary source without requiring a permit revision.

Condition 84, Permit Renewal

Legal Basis: The Permittee must submit a timely and complete operating permit renewal application if the Permittee intends to continue source operations in accord with the operating permit program under18 AAC 50.326(j)(3). The obligations for a timely and complete operating permit application are set out in 40 C.F.R. 71.5 incorporated by reference in 18 AAC 50.040(j)(3). 40 C.F.R. 70 Appendix A documents that EPA fully approved the Alaska operating permit program effective November 30, 2001.

Factual Basis: In accordance with AS 46.14.230(a), this operating permit is issued for a fixed term of five years after the date of issuance, unless a shorter term is requested by the permit applicant. The Permittee is required to submit an application for permit renewal by the specific dates applicable to the stationary source as listed in this condition. As stated in 40 C.F.R. 71.5(a)(1)(iii), submission for a permit renewal application is considered timely if it is submitted at least six months but no more than eighteen months prior to expiration of the operating permit. According to 40 C.F.R. 71.5(a)(2), a complete renewal application is one that provides all information required pursuant to 40 C.F.R. 71.5(c) and must remit payment of fees owed under the fee schedule established pursuant to 18 AAC 50.400. 40 C.F.R. 71.7(b) states that if a source submits a timely and complete application for permit issuance (including renewal), the source's failure to have a permit is not a violation until the permitting authority takes final action on the permit application.

Therefore, for as long as an application has been submitted within the timeframe allowed under 40 C.F.R. 71.5(a)(1)(iii), and is complete before the expiration date of the existing permit, then the expiration of the existing permit is extended and the Permittee has the right to operate under that permit until the effective date of the new permit. However, this protection shall cease to apply if, subsequent to the completeness determination, the applicant fails to submit by the deadline specified in writing by the Department any additional information needed to process the application. Monitoring, recordkeeping, and reporting for this condition consist of the application submittal.

Conditions 85 - 89, General Compliance Requirements and Schedule

Legal Basis: These conditions ensure compliance with the applicable requirement in 18 AAC 50.326(j)(3). The Permittee is required to comply with these standard conditions set out in 18 AAC 50.345 included in all operating permits. 40 C.F.R. 70 Appendix A documents that EPA fully approved the Alaska operating permit program effective November 30, 2001.

Factual Basis: These are standard conditions for compliance required for all operating permits.

Conditions 90 - 91, Permit Shield

Legal Basis: These conditions ensure compliance with the applicable requirement in 18 AAC 50.326(j) and apply because the Permittee has requested that the Department shield the source from the non-applicable requirements listed under these conditions under the federally approved State operating program effective November 30, 2001

Factual Basis: Table I of Operating Permit No. AQ0245TVP03 shows the requested permit shield that the Department granted to the Permittee. The Department did not deny any requested permit shield. The table does not contain requirements that are obviously not applicable to the stationary source.