

**Alaska Department of Environmental Conservation  
Air Permits Program**

**Public Comment - November 20 2014**

Alaska Electric & Energy Cooperatives (AE&EC)  
Nikiski Generation Plant

**STATEMENT OF BASIS  
of the terms and conditions for  
Permit No. AQ1190TVP02**

**Reviewed by Zeena Siddeek  
ADEC AQ/APP (Juneau)**

**Prepared by Kwame Agyei  
ADEC AQ/APP (Juneau)**

## INTRODUCTION

This document sets forth the statement of basis for the terms and conditions of Operating Permit No. AQ1190TVP02.

### **Major Stationary Source Definition and Collocation Discussion**

The emission units included under AQ1190TVP01 (EU IDs 1 through 3) were previously included under Operating Permit No. AQ0083TVP01, issued November 10, 2003 to Agrium U.S. Inc., for operation of the Kenai Nitrogen Operations Plant (KNO). The Agrium KNO stationary source collectively consisted of emission units/activities at onsite areas identified as Ammonia Plant #1, Ammonia Plant #4, Urea Plant #2, Urea Plant #5, Urea Plant #5, Utility Plant #6, and Cogeneration Plant. As part of the renewal application for Operating Permit No. AQ0083TVP02, Agrium has requested that the Cogeneration Plant (i.e., Permit No. AQ0083TVP01, EU IDs 62-64) not be included in AQ0083TVP02. Agrium has indicated that ownership and operation of the Cogeneration Plant is being transferred to Alaska Electric and Energy Cooperative (AE&EC), and will operate as a separate stationary source known as the "Nikiski Generation Plant". EU IDs 62, 63, and 64 of KNO's operating permit AQ0083TVP01 are listed as EU IDs 1, 2, and 3 of Nikiski Generating Plant operating permit AQ1190TVP01.

Agrium and the previous owner of the cogeneration plant previously requested the Department to consider Agrium KNO and Nikiski Generation plants as one facility in a letter to U.S. EPA dated July 2, 1998. While ADEC through consultation with Department of Law and U.S. EPA Region 10 subsequently approved this request, the two applicants now request that the installation be considered two separate stationary sources. A June 30, 2006, Confidential Settlement Agreement, amended December 31, 2008, disaggregates the AE&EC Nikiski Generation Plant and the Agrium KNO Plant. After August 31, 2009, all contractual obligations of the agreement will be satisfied.

U.S. EPA has defined a "major source" for purposes of the Part 71 permitting program at 40 C.F.R. 71.2, *Definitions*. ADEC incorporates this definition by reference in 18 AAC 50.040(j). In order for Agrium KNO and AE&EC Nikiski to be considered as a single major stationary source under Part 71, all three of the following criteria must be met:

- (1) The plants must have common ownership or common control;
- (2) The plants must have the same two digit SIC code or a support relationship; and
- (3) The plants must be located on contiguous or adjacent properties.

The Department has determined that these plants are not one major stationary source based on the facts that are given below. Information used in this determination has been provided by AE&EC, in response to a Department request.

First, the two plants do not have common ownership or common control. The AE&EC Nikiski Generation Plant equipment is 100% owned by AE&EC. AE&EC has sole control of the AE&EC Nikiski Generation Plant equipment. The equipment listed in Operating Permit No. AQ0083TVP01 is 100% owned by Agrium and Agrium has sole control of the KNO plant equipment. Therefore, the Department has determined that the Agrium and AE&EC Nikiski plants do not meet the criteria for common ownership.

Second, the two plants do not have the same two digit SIC code. The AE&EC Nikiski Generation Plant stationary source SIC Code is 4911 – Electrical Services. The Agrium U.S. Inc. KNO stationary source SIC Code is 2873 - Nitrogenous Fertilizer. Now that Agrium is shut-down, the Nikiski Generation Plant does not qualify as an auxiliary activity to the Agrium KNO

plant, and there is no single industrial description that combines these two activities. All of the electricity produced at the AE&EC Nikiski Generation Plant now goes to the power grid. While the June 30, 2006 Confidential Settlement Agreement provides that any steam produced by the AE&EC Heat Recovery Steam Generator (EU ID 3) until December 31, 2010 is owned by Agrium, all steam produced after December 31, 2010 will belong to AE&EC. This notwithstanding, the Agrium KNO plant is not currently operating, and the Heat Recovery Steam Generator has been taken out of service (i.e., physically disconnected from the turbine, stack capped and not readily available for operation). Therefore, the Department has determined that the Agrium KNO and AE&EC Nikiski plants do not meet the criteria for a support relationship. Third, while the two plants are located on contiguous or adjacent properties and share a common fence line, AE&EC has specified that neither plant has uncontrolled access to the other. After August 31, 2009, shared sanitary sewer, potable water, water treatment waste, and firewater utility connections will no longer exist between the two plants. The two plants do not share any common employees. Finally, based on the June 30, 2006, Confidential Settlement Agreement amended December 31, 2008; the two plants will be disaggregated after August 31, 2009, with all contractual obligations satisfied.

Therefore, the Department has determined that the Agrium KNO and AE&EC Nikiski plants will become two separate independent stationary sources on August 31, 2009 for purposes of 40 C.F.R Part 71 Agrium KNO closed down in 2009 and withdrew the application to renew AQ0083TVP01. This permit application renews Nikiski Generating Plant's Operating Permit No. AQ1190TVP01.

### **STATIONARY SOURCE IDENTIFICATION**

Section 1 of Operating Permit No. **AQ1190TVP02** contains information on the stationary source as provided in the Title V permit application.

The stationary source is owned and operated by Alaska Electric & Energy Cooperatives (AE&EC) and AE&EC is the Permittee for the stationary source's operating permit. The SIC code for this stationary source is 4911 - Electrical Services. The North American Industrial Classification System code is 221112 – Fossil Fuel Electric Power Generation.

The stationary source produces electricity with a gas-fired turbine and an electric steam turbine generator (STG), which is stepped up to 115 kilovolts and sold to local markets via a high-voltage transmission and distribution system. Steam is produced when the exhaust from the combustion turbine is fed into a heat recovery steam generator (HRSG), which is fitted with supplemental duct burners. The steam produced is fed into the STG that produces electricity. The gas-fired turbine can also operate with a bypass stack without feeding gases into the HRSG.

### 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 Nikiski Generation Plant that are classified and have specific monitoring, recordkeeping, and reporting requirements are listed in Table A of Operating Permit No. AQ1190TVP02.

Table A of Operating Permit No. AQ1190TVP02 contains information on the emission units regulated by this permit as provided in the application. The Permittee installed a 2 MW diesel Caterpillar generator as EU ID 4 in 2011 and installed a 150 hp diesel John Deer Emergency Firewater Pump as EU ID 5 in 2012. 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.

### EMISSIONS

A summary of the potential to emit (PTE)<sup>1</sup> and assessable PTE for the Nikiski Generation Plant is shown in the table below. The Department used information included in the application to verify the emission estimates as presented in the application. The estimates agreed with the Permittee's estimates except for the greenhouse gas emissions. The criteria pollutants and hazardous air pollutant (HAP) emission estimates in the renewal application are based on AP-42 emission factors, mass balance, source tests and equipment specifications. The greenhouse gas emissions are based on fuel consumption, equipment specifications and factors from 40 C.F.R. 98, Table A-1, Table C-1 and Table C-2.

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

EU ID 1	NOx	CO	PM	SO <sub>2</sub>	VOC	CO <sub>2</sub> e	HAPs	Total
Potential to Emit	751.7	171.7	28.5	29.2	22.4	567,351	2.1	
Assessable Emissions	752	172	29	29	22	Not Applicable		1004

The assessable PTE listed under Condition 45.1 is the sum of the emissions of each individual regulated air pollutant for which the stationary source has the potential to emit quantities greater than 10 TPY, or greater than GHG permitting thresholds<sup>2</sup>. The emissions listed in Table C are estimates that are for informational use only. The listing of the emissions does not create an enforceable limit to the stationary source.

<sup>1</sup> *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.

<sup>2</sup> See EPA's November 2010 PSD and Title V Permitting Guidance, Table V-A.

## **BASIS FOR REQUIRING AN OPERATING PERMIT**

In accordance with AS 46.14.130(b), an owner or operator of a Title V source<sup>3</sup> 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.

This stationary source must obtain an operating permit because it is classified under 18 AAC 50.326(a) and 40 C.F.R. 71.3(a) as directly

- emitting, or has the potential to emit, 100 tpy or more of any criteria air pollutant; and
- emitting, or has the potential to emit, 100,000 tpy or more of greenhouse gases.

## **AIR QUALITY PERMITS**

### **Previous Air Quality Permit to Operate**

The turbine and startup engine were originally installed in 1985 at the Soldotna #1 Power Plant, located at Mile 91.8 Sterling Highway in Soldotna, where they were last operated under Permit 9423-AA001. The turbine and startup engine were relocated from Soldotna to the Nikiski site, and the heat recovery steam generator (HRSG) was newly constructed at the site under Construction Permit 9923-AC004. The Cogeneration Plant commenced operation on February 7, 2001. The construction permit requirements were incorporated into Agrium's Title V Permit AQ0083TVP01 issued in November 2003.

A minor permit No. AQ0083MSS01 was issued to Agrium on August 8, 2005 to adjust the NO<sub>x</sub> monitoring frequency of the HRSG. This was also incorporated into the Title V permit as Revision 1. The incorporation of the two Title I permits into Agrium's Title V permit created a complication in that certain conditions intended to be permanent would expire with the existing Title V permit in December 2008. To resolve this, ADEC issued Permit No. AQ0083MSS02 on May 29, 2007 to Agrium. AQ0083MSS02 reinstated all applicable Title I permit conditions. This was documented as Revision 2 to the Title V permit. (See Major Stationary Source Definition and Collocation Discussion)

### **Title I (Construction and Minor) Permits**

The Department reviewed turbine installation under the State Implementation Plan (SIP) approved pre-construction review for construction in Soldotna (Hollywood Road). See AQ8423-AA004. Because projected emissions exceeded 250 tons per year (tpy) for NO<sub>x</sub>, a Prevention of Significant Deterioration (PSD) best available control technology determination was made under Permit No. 8423-AA004. The NO<sub>x</sub> emission limitation set in this permit was 75 (14.4/Y) ppmv at 15% oxygen on a dry basis. The value of Y in the above formula is 11.9,

---

<sup>3</sup> Title V source means a stationary source classified as needing a permit under AS 14.130(b) [ref. 18 AAC 50.990(111)].

resulting in a 91 parts per million by volume (ppmv) limit [ $75 * (14.4/11.9) = 91$ ]. This limit corresponds with the limit in NSPS 40 CFR Part 60, Subpart GG:

$$STD = 0.0075 \frac{(14.4)}{Y} + F$$

where:

STD = allowable ISO corrected (if required as given in 40 C.F.R. 60.335(b) (1)) NO<sub>x</sub> emission concentration (percent by volume at 15 percent oxygen and on a dry basis),

Y = manufacturer's rated heat rate at manufacturer's rated load (kilojoules per watt hour) or, actual measured heat rate based on lower heating value of fuel as measured at actual peak load for the facility. The value of Y shall not exceed 14.4 kilojoules per watt hour, and

F = NO<sub>x</sub> emission allowance for fuel-bound nitrogen as defined in 40 C.F.R. 60.332(a)(4).

The ADEC technical analysis associated with permit AQ 8423-AA004 incorrectly identified the NSPS standard for NO<sub>x</sub> as 75 ppmv instead of 75 multiplied by (14.4/Y) ppmv and refers to this limit throughout the analysis. However, this is not an enforceable document so there is no need to modify this documentation. (Note: There was also a limit set on sulfur content in distillate fuel since distillate oil was identified as a standby source of fuel in this original permit). In 1989, Permit No. 8923-AA004 was issued, rescinding Permit No. 8423-AA004. Every permit issued for the gas turbine since the 1984 permit specified a 91 ppmv NO<sub>x</sub> limit instead of referring to the NSPS equation.

At the request of Alaska Electric Generation and Transmission, the permit at the Soldotna location was discontinued in 2000 and re-permitted under the Unocal permit as part of a cogeneration facility. The turbine and startup engine were relocated from Soldotna to the Nikiski site, and the HRSG was newly constructed at the site under Construction Permit 9923-AC004. Since this was a different location, different Permittee and different type of equipment, the Department completed a full permitting analysis. The analysis showed that the construction did not require PSD review. Instead, the facility was permitted under ADEC's Title I construction program and BACT did not apply. However, the limitation in NSPS 40 C.F.R 60, Subpart GG still applied so there was a continuation of the 91 ppmv NO<sub>x</sub> emission limit.

The remaining permit history pertains to the stationary source as it was permitted for installation at KNO under AQ0083TVP01. Each of the permits listed in this summary were issued to Agrium KNO. (See Major Stationary Source Definition and Collocation Discussion).

Construction Permit No. 9923-AC004 was issued on September 15, 1999 and amended on July 14, 2003. Operating Permit No. AQ1190TVP01 included all stationary source-specific requirements established in Construction Permit No. 9923-AC004 for AE&EC's activities .

The Department issued Operating and Construction Permit No. AQ0083TVP01 to Agrium KNO on November 10, 2003. This permit revised permit provisions established in Permit-to-Operate 9423-AA011 and Construction Permit No. 9923-AC004, Revision 1.

The Department issued Minor Permit No. AQ0083MSS01 to Agrium KNO on August 8, 2005. This permit revised Condition 32.4 of Permit No. 9923-AC004, Revision 1 regarding NO<sub>x</sub>

source testing for the HRSG. It also repealed Condition 33.5.1 of Permit No. 9923-AC004, Revision 1 and replaced it with a new monitoring scheme to synchronize source-testing frequency of the HRSG with that of the turbine.

The Department issued Minor Permit No. AQ0083MSS02 to Agrium KNO on May 29, 2007. The permit reinstated applicable provisions of Permit-to-Operate No. 9423-AA011 and Construction Permit No. 9923-AC004, because these provisions were scheduled to expire with Operating/Construction Permit No. AQ0083TVP01. Permit No. AQ0083TVP01, Revision 2 was issued on August 21, 2007 to incorporate the changes made under AQ0083MSS02.

Minor Permit No. AQ0083MSS03 was issued to Agrium KNO on December 30, 2008, rescinding and replacing Condition 11 of Minor Permit No. AQ0083MSS02 dated May 29, 2007. Condition 11 required continuous ambient air quality monitoring for ammonia to demonstrate compliance with the ambient air quality standard in 18 AAC 50.010(8). This revision did not impact operations or activities at the Nikiski Generation Facility.

The Department issued Minor Permit No. AQ0083MSS04 to Agrium KNO on January 30, 2009 to revise the source testing requirements for the HRSG (now EU ID 3 at Nikiski Generating Plant). If the emission unit is not operational, periodic NO<sub>x</sub> source testing is not required. If the emission unit is restarted, source testing would be required within 120 days of startup.

Operating Permit AQ1190TVP01 issued for the Nikiski Generating Plant included applicable requirements from minor permits AQ0083MSS02 and AQ0083MSS04 for completeness.

*Minor Permit No. AQ1190MSS01:*

The Department issued AQ1190MSS01 to AE&EC on April 25, 2011 for the installation of a two-megawatt diesel generator, a 150 horsepower (hp) firewater pump and a natural gas-fired glycol heater at the Nikiski Generating Plant. Because AE&EC did not permanently shut down the HRSG and combined turbine generator (CTG), the permit applicability analysis did not consider the emissions from the HRSG and CTG. The owner requested limits in AQ1190MSS01 enabled the installations to avoid an air quality modeling analysis. (See Technical Analysis Report for AQ1190MSS01 for a fuller description of AQ1190MSS01).

The Department did not incorporate AQ1190MSS01 into AQ1190TVP01 because the terms and conditions in the minor permit did not violate any condition in AQ1190TVP01. AQ1190TVP02, therefore, incorporates all stationary-source specific conditions on AQ1190MSS01.

**Title V Operating Permit Application, Revisions and Renewal History**

See Major Stationary Source Definition and Collocation Discussion. Also, see the Statement of Basis for AQ0083TVP01 for the KNO for operating permit history prior to AE&EC submitting an operating permit application for the Nikiski Generation Facility.

AE&EG submitted an initial operating permit application for activities at the Nikiski Generating Plant on June 26, 2008. The Department issued AQ1190TVP01 on September 30, 2009.

AE&EC submitted a renewal operating permit application for AQ1190TVP02 on March 28, 2014. AQ1190TVP02 incorporates applicable stationary-source specific requirements in AQ1190MSS01 and requirements that apply to the emission units Agrium transferred to the Nikiski Generating Plant when Agrium KNO closed down.

## COMPLIANCE HISTORY

See Major Stationary Source Definition and Discussion in the introductory section of this Statement of Basis.

The stationary source has operated at its current location since February 2001. Review of the stationary source's permit files, past inspection reports, and compliance evaluations, indicate a stationary source generally operating in compliance with its operating permit. A full onsite compliance evaluation on March 4, 2014 found the stationary source to be in full compliance with the permits issued to the stationary source.

### 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 D lists the requirements carried over from Permit No. AQ1190TVP01 into renewal Permit No. AQ1190TVP02 to ensure compliance with the applicable requirements.



**Table D: Comparison of AQ1190TVP01 Conditions to AQ1190TVP02 Conditions**

<b>AQ1190TVP01 Condition</b>	<b>Description of Requirement</b>	<b>AQ1190TVP02 Condition</b>	<b>How Condition was revised</b>
Section 1	Identification, names and addresses	Section 1	Updated information
Table A	EU Inventory and Description	Table A	Added EU IDs 4 and 5
Condition 1, 1.1	Visible Emissions (VE) Standard	1	Merged conditions and added EU IDs 4, 5, and 6
1.2	VE MR&Rs	1.1	Added EU IDs 4 and 5 and applicable sub-conditions from new template
1.3	VE MR&R for EU IDs 1 and 3	1.2	Added EU ID 6
2 - 4	VE MR&Rs for liquid-fired units	2 - 4	Added EU IDs 4 and 5 and revised to match new template language
5	PM Standard and MR&Rs	5	Added EU IDs 4 through 6
5.1	PM MR&R for EU IDs 1 and 3	5.2	No revisions
5.2	PM MR&R for EU ID 2	5.3	No revisions
No equivalent	PM MR&R for EU IDs 4 and 5	5.1 and 5.4	Added MR&Rs for EU IDs 4 and 5
No equivalent	PM Source tests for EUs 2, 4, & 5	6	Conducting PM source test
No equivalent	Exhaust diameters for EUs 2, 4, 5	7	Recording and reporting
No equivalent	PM source test and VE reporting	8	Reporting source tests and VE
6	Sulfur compound emissions	9	Added EUs 4 and 5
7	ORLs and MR&Rs for H <sub>2</sub> S content	10	Added AQ1190MSS01 to citation
8 and 9	MR&Rs for fuel oil burned	11	Revised to include EUs 4 and 5
No equivalent	Operating hour for EU IDs 4 and 5	12	New condition (AQ1190MSS01)
10 - 13	Insignificant Emission Units	13	Used new template language
14 - 22	NSPS Subpart A Requirements	14 - 22	Revised to match template
23 - 24	NSPS Subpart GG for EU ID 1	23 - 24	Revised to match template
25	NSPS Subpart Db for EU ID 3	25	No revisions
No equivalent	Subpart IIII for EU IDs 4 & 5	26 - 30	New conditions for EU IDs 4 and 5
No equivalent	NESHAPs Subpart A for EU ID 2	31 - 36	New conditions for EU ID 2
26 - 37	Standard Terms and Conditions	41 - 52	Revised to match template
38 - 42	General federal requirements	37 - 40	Revised to match template
43	Open Burning	53	No revisions
44 - 53	General Source Testing and Monitoring Requirements	54 - 63	No revisions
54 - 61	General Recordkeeping and Reporting Requirements	64 - 70	Revised to match template language
No equivalent	Emission Inventory Reporting	71	New requirements
62 - 68	Permit Change and Renewal	72 - 76	No revisions
69 - 73	General Compliance Requirements	77 - 81	No revisions
74 - 75	Permit Shield	82 - 83	No revisions
Table B	Permit Shields Granted	Table B	Revised to match template format
Section 11	Visible Emission Forms	Section 11	Replaced with new form
Section 12	ADEC Notification Form	Section 12	No revisions
No equivalent	Emission Inventory Form	Section 13	New form required by template

Table E lists the requirements carried over from Permit No. AQ1190MSS01 into renewal Permit No. AQ1190TVP02 to ensure compliance with the applicable requirements.

**Table E: Comparison of AQ1190MSS01 Conditions to AQ1190TVP02 Conditions**

AQ1190MSS01 Condition	Description of Requirement	AQ1190TVP02 Condition	How Condition was revised
Table A	Emission Unit Inventory	Table A	Added construction dates and model for EU IDs 4, 5, and 6
2.	Assessable emissions	45.1	Revised 990 tpy to 1,002 tpy
4	Operating hours for EU IDs 4 and 5	12	No revision
5.1	Natural gas H <sub>2</sub> S content	10	Added EUs 1, 3 and 6
5.2	Burn only No.1 and 2 diesel	11	Added EU ID 2 to affected units
6, 7, 8	State emission standards	1, 5, and 9	Added EU IDs 1, 2, 3, and 6

**NON-APPLICABLE REQUIREMENTS**

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). This section discusses standard conditions that have been removed from the permit or are not included for specific reasons.

**40 C.F.R. 64 Compliance Assurance Monitoring (CAM) Rule:** The requirements of CAM apply to a pollutant-specific emissions unit at a major source if the unit satisfies **all** of the following criteria. Emission unit

- is subject to an applicable emission limitation or standard;
- uses a control device to comply with applicable emission limitation or standard; and
- has potential pre-control device emissions of the applicable regulated air pollutant equal to or greater than the major source thresholds for the applicable regulated air pollutant.

EU ID 1, the Co-Generation Turbine is the only emission unit that meets these criteria. However, emission units that monitor for compliance in accordance with any other post-1990 EPA rule or any rule with continuous compliance monitoring requirements are exempt from the CAM requirements as specified in 40 CFR 64.2(b)(1) and 40 CFR 64.1.

The NSPS covering the GGT-1746 turbine was issued before the 1990 CAM threshold. However, the water/fuel ratio monitoring system used for the Co-Generation turbine meets the exemption criteria noted in the referenced citations, because the NSPS standard specifies a continuous compliance determination method as defined by 40 CFR 64.1.

**40 C.F.R. 68 Risk Management Plan:** 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 §68.115.

**NSPS Subparts Kb:** The application included a 300 gallon fuel storage tank that stores diesel fuel. The tank is not subject to Subpart Kb because it has a capacity of 1.12 m<sup>3</sup>, and stores a liquid with a maximum true vapor pressure less than 3.5 kilopascals. A permit shield has not been granted for these regulations. This tank is not explicitly listed in the permit.

**NESHAPs Subpart JJJJJ:** The application contained three building heaters running on natural gas. 40 C.F.R. 63. 11195(e) exempts natural gas-fired boilers at HAP area sources from this subpart. These three heaters are not explicitly listed in the permit.

---

## STATEMENT OF BASIS FOR THE PERMIT CONDITIONS

The State and Federal regulations for each condition are cited in Operating Permit No. AQ1190TVP02. 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, 2 - 4, and 13.1: 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 IDs 1 through 6 are fuel-burning equipment.

U.S. EPA incorporated these standards as revised in 2002 into the State Implementation Plan (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 2 through 4, and 13 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 and particulate matter.

These conditions detail a stepwise process for monitoring compliance with the State's visible emissions and particulate matter (PM) standards 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.

### **Gas-Fired Fuel Burning Equipment:**

Monitoring – The monitoring of gas-fired emission units for particulate matter is waived, i.e. no source testing will be required. The department has found that natural gas-fired equipment inherently has negligible visible emissions. However, the department can request a visible emissions observations from any smoking equipment.

Reporting – The Permittee must state in each operating report whether only gaseous fuels were used in the equipment during the period covered by the report.

### **Liquid Fuel-Fired Burning Equipment:**

Monitoring – The Permittee is required to conduct visible emissions observations if emissions exceed threshold values for visible emissions.

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

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 visible emission source tests. The Permittee is required to include copies of the results of all visible emission observations with the operating report.

## **Conditions 5, 6 through 8, and 13.2. Particulate Matter (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 IDs 1 through 6 are fuel-burning equipment.

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

**Factual Basis:** Condition 5 prohibits emissions in excess of the state PM (also called grain loading) standard applicable to fuel-burning equipment and industrial processes. The Permittee shall not cause or allow fuel-burning equipment nor industrial processes to violate this standard.

MR&R requirements are listed in Conditions 6 through 8 and 13.2 of the permit.

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.

### **Gas-Fired Fuel Burning Equipment:**

Monitoring – The monitoring of gas-fired emission units for particulate matter is waived, i.e. no source testing will be required. The department has found that natural gas-fired equipment inherently has negligible PM emissions. However, the department can request a source test for PM emissions from any smoking equipment.

Reporting – The Permittee must state in each operating report whether only gaseous fuels were used in the equipment during the period covered by the report.

### **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 9, 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 IDs 1 through 6 are 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.

Sulfur dioxide comes from the sulfur in the natural gas and diesel fuel.

### **Liquid Fuels:**

For oil fired fuel burning equipment, the MR&R conditions are in Condition 11. The conditions are customized for this stationary source since they are restricted to burning only No.1 or No.2 diesel fuel.

### **Gaseous Fuels:**

Fuel sulfur testing or a statement from the fuel supplier will verify compliance with SO<sub>2</sub> emission standard. Mercaptans are a concentrated thiol molecule (e.g. ethanethiol) composed of hydrogen and sulfur used to detect the presence of natural gas by its strong odor as in t-butyl-mercaptan. Basically, it is the mercaptan that allows the presence of gas to be detected by its odor, so it is naturally used as a leak detectant. However, by that same token it significantly raises the sulfur content of the natural gas and should be accounted for in determining compliance with the State sulfur compound emissions standard. The Department has therefore revised the basic MR&R requirements to monitor the total sulfur quantity, instead of H<sub>2</sub>S concentration, in the natural gas fuel due to the presence of mercaptans in the gas supply which raise the sulfur concentration.

Condition 10.1.b requires the Permittee to conduct a semiannual analysis for the fuel gas sulfur content using either ASTM Method D-4810-88, D 4913-89, or another method listed in 18 AAC 50.035(c) and incorporated by reference in 18 AAC 50.040(a)(1).

The Permittee is required to report as State excess emissions whenever the fuel combusted causes sulfur compound emissions to exceed the standards in this condition. The Permittee

is required to include copies of the records of semiannual statement from the fuel supplier or the H<sub>2</sub>S content analysis with the stationary source operating report.

### **Condition 10 through 12, Stationary Source-Wide Specific Title I Permit Requirements**

**Legal Basis:** The Permittee is required to comply with all effective stationary source-specific requirements that that applied to emission units transferred to the Nikiski Generating Plant when the Agrium KNO plant closed.

Condition 10 limits H<sub>2</sub>S content of the natural gas burned to no more than 40 ppmv and requires MR&Rs to assure compliance with the 40 ppmv limit. Rescinded permits issued to KNO contained the 40 ppmv H<sub>2</sub>S limit for EU IDs 1 and 3. Minor Permit AQ1190MSS01 limited the H<sub>2</sub>S content burned in EU ID 6 to 40 ppmv. Therefore, these conditions are applicable requirements for the source and were incorporated into the operating permit as Condition 10.

Condition 11 requires the diesel-fired emission units to burn No.1 or No.2 diesel fuel. This requirement was carried forward from permits issued to KNO and incorporated into AQ1190TVP01. The rescinded KNO permits required the Permittee to burn No.1 or No.2 diesel fuel and limited diesel combustion in EU ID 2 to 2,000 gallons of diesel fuel per year.

Condition 12 restricts the operating hours for EU IDs 4 and 5 as specified in AQ1190MSS01. The Permittee must comply with operating hour requirements for EU IDs 4 and 5. The operating hour requirements for EU IDs 4 and 5 were established in Minor Permit AQ1190MSS01 issued on April 25, 2011 to AEEC for the restart of the HRSG and CTG.

**Factual Basis:** The requirements for these conditions as established in Title permits issued to KNO that were applicable to the emission units transferred to the Nikiski Generation are applicable to the same emission units in this permit. Title I permits issued to AE&EC for the Nikiski Generation Plant for the emission units are applicable requirements for the emission units.

### **Conditions 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 and fuel-burning equipment.

**Factual Basis:** The conditions re-iterate 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. For EU IDs 2, 4, and 5, as long as they do not exceed the limits of their hours of operation as stated in Conditions 1.1.a through 1.1.b, they are considered insignificant units and no monitoring is required in accordance with Department Policy and Procedure No. AWQ 04.02.103, Topic # 3, 10/8/04 for standby emission units.

## 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 April 24, 2013, for specific industrial activities, as listed in 18 AAC 50.040<sup>4</sup>.

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 GG, EU ID 3 is subject to NSPS Subpart Db, and EU IDs 4 and 5 are subject to NSPS Subpart IIII, and therefore subject to NSPS Subpart A.

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 IDs 1, 3, 4, and 5. However, the Permittee is still subject to these requirements in the event of a new NSPS affected facility<sup>5</sup> or in the event of a modification or reconstruction of an existing facility<sup>6</sup> into an affected facility.

Conditions 14.4 through 14.6 - The requirements to notify the EPA and the Department of the date of a continuous monitoring system (CMS) 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 only if a CMS is installed as an NSPS requirement. This requirement does not apply to EU ID 1 if a CMS is installed under the periodic monitoring requirements of Condition 23.3.

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.

Condition 15 - Start-up, shutdown, or malfunction record maintenance requirements in 40 C.F.R. 60.7(b) are applicable to all NSPS affected facilities subject to Subpart A.

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 statement of basis 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 all NSPS affected facilities. (Satisfied by Condition 64)

Condition 18 - The Permittee has already complied with the initial performance test requirements in 40 C.F.R. 60.8 for EU IDs 1 and 3. 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.

---

<sup>4</sup> EPA has not delegated to the Department the authority to administer the NSPS program as of the issue date of this permit<sup>5</sup>  
*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.

<sup>5</sup> *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.

<sup>6</sup> *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 19 - Good air pollution control practices in 40 C.F.R. 60.11 are applicable to NSPS affected facilities subject to Subpart A (EU IDs 1 and 3). EU IDs 4 and 5 are not subject to 40 C.F.R. 60.11 because 40 C.F.R. 60, Subpart IIII contains specific requirements under the subpart for good air pollution control practices.

Condition 20 - states that any credible evidence may be used to demonstrate compliance or establishing violations of relevant NSPS standards for EU IDs 1 and 3.

Condition 21 - Concealment of emissions prohibitions in 40 C.F. R. 60.12 are applicable to EU IDs 1, 3, 4, and 5.

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 Subpart GG emission standards.

**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.

### Conditions 23 - 24, NSPS Subpart GG Requirements

**Legal Basis:** This condition prohibits the Permittee from exceeding emission standards set out in Subpart GG. NSPS Subpart GG applies to stationary gas turbines with a heat input at peak load (maximum load at 60 percent relative humidity, 59°F, and 14.7 psi) equal to or greater than 10.7 gigajoules per hour (10 MMBtu/hr), based on the lower heating value of the fuel fired and constructed, modified, or reconstructed after October 3, 1977.

**Factual Basis:** These conditions incorporate NSPS Subpart GG NO<sub>x</sub> emission and sulfur compound limits. The Permittee may not allow equipment to violate these standards. Per Condition 24.3.b and pursuant to 40 C.F.R. 60.334(h)(3), the owner or operator may elect not to monitor the total sulfur content of the gaseous fuel combusted in the turbine if the gaseous fuel is demonstrated to meet the definition of natural gas in 40 C.F.R. 60.331(u), regardless of whether an existing custom schedule approved by the Administrator requires such monitoring. The Permittee has elected not to conduct sulfur monitoring as allowed under Condition 24.3.b and submitted a certified statement to the Department indicating that the fuel gas combusted at the stationary source meets the definition of natural gas as defined by 40 C.F.R. 60.331(u). Per 40 C.F.R. 60.334(i)(3)(i), a custom sulfur monitoring schedule under 60.334(i)(3)(ii)(A) is acceptable without prior Administrative approval.

NO<sub>x</sub> Standard: For a turbine subject to 40 C.F.R. 60.332, the NO<sub>x</sub> standard is determined by the following equation:

$$STD_{NO_x} = 0.0075 \left( \frac{14.4}{Y} \right) + F$$

$$STD_{NO_x} = 0.015 \left( \frac{14.4}{Y} \right) + F$$

Where:

STD<sub>NO<sub>x</sub></sub> = allowable NO<sub>x</sub> emissions (percent by volume at 15 percent oxygen and on a dry basis)



- Y = manufacturer's maximum rated heat input (kJ/W-hr), or actual measured heat rate based on lower heating value of fuel as measured at actual peak load for the affected stationary source. The value of Y shall not exceed 14.4 kJ/W-hr; and
- F = NO<sub>x</sub> emissions allowance for fuel bound nitrogen, percent by volume, assumed to be zero for distillate fuel oil and gaseous fuels.

Based on the manufacturer's heat rating at manufacturer's rated peak load, and assuming fuel bound nitrogen of zero, the NO<sub>x</sub> standard is 91 ppmv for EU ID 1.

SO<sub>2</sub> Standard: The Permittee is required to comply with one of the following sulfur requirements for EU ID 1 (turbines):

- (1) do not cause or allow SO<sub>2</sub> emission in excess of 0.015 percent by volume, at 15 percent O<sub>2</sub> and on a dry basis (150 ppmv), or
- (2) do not cause or allow the sulfur content for the fuel burned in EU ID(s) < > to exceed 0.8 percent by weight.

Exemptions: Gas turbines exempted from NSPS Subpart GG emission standards are as provided in 40 C.F.R. 60.332(e).

### **Condition 23, NO<sub>x</sub> Monitoring, Recordkeeping, and Reporting**

**Legal Basis:** Periodic monitoring is included in Condition 23.3 for all turbines that normally operate for greater than 400 hours in a 12 month period. This additional monitoring is necessary to ensure that turbine emissions comply with the NSPS NO<sub>x</sub> standard and is required under 40 C.F.R. 71.6(a)(3) as the subpart does not contain MR&R sufficient for an operating permit.

**Factual Basis:** The Department does not have enough information to make categorical determinations that certain types of turbines, or turbines with emission test results below a certain percentage of the Subpart GG NO<sub>x</sub> emission limit will inherently comply with the Subpart GG limit at all times and will never need additional testing. After a sufficient body of NO<sub>x</sub> data is gathered under monitoring conditions for compliance with 40 C.F.R. 60, Subpart GG, the Department may find that it has enough information to make such categorical determinations. In that event, the Department would revise the NO<sub>x</sub> monitoring conditions. The Department may determine that to assure compliance it is necessary to retain or increase the current monitoring frequency.

These conditions do not include the initial NSPS performance test requirements as the Subpart A conditions cover these requirements. If an existing or new turbine under this permit is still subject to the performance test requirement of 40 C.F.R. 60.8 is covered under the Subpart A related conditions.

The intent of these conditions is that turbines or groups of turbines be routinely tested on no less than a 5-year cycle. If the most recent performance test on a turbine showed NO<sub>x</sub> emissions at less than or equal to 90 percent of the limit shown in Condition 23, then periodic monitoring is required at the first applicable of three criteria: either within 5 years of the last performance test, or within a year of the issue date of the permit, or within a year of exceeding 400 hours of operation within a 12-month period. For clarification, the Department added a 6 month cut-off date for triggering source testing within 1 year after

permit issue date in accordance with Condition 23.3.a(i)(B). The 6-month trigger identifies when Condition 23.3.a(i)(C) would be enacted to require source testing within 1 year of triggering 400 hours. This ensures that a unit would not appear to be out of compliance with Condition 23.3.a(i)(B) once it finally triggered Condition 23.3.a(i)(C).

If the most recent performance test showed operations at greater than 90 percent of the emissions listed in Condition 23, then periodic monitoring source testing is required every year until two consecutive tests show emissions at less than or equal to 90 percent of the limit.

The condition does not state how load must be measured. For some turbines it may be possible to directly measure load as either mechanical or electrical output. For others, it may be necessary to calculate load indirectly based on measurements of other parameters. The Department is not attempting to dictate what method is most appropriate through the permit condition, but should evaluate the adequacy of methods of calculating load based on the load monitoring proposed by the Permittee.

Subpart GG defines “emergency gas turbine<sup>7</sup>” and exempts turbines meeting that definition from the GG emission standards. Some turbines may be operated as standby equipment but not meet the definition of emergency turbine, so the Department has added a Method 20, or Method 7E and either Method 3 or 3A, monitoring threshold of 400 hours per 12-month period. For turbines expected to operate less than 400 hours the Department has also added recordkeeping for hours of operation. The Department does not intend to require the Permittee to operate a turbine solely for the purpose of testing.

The condition requires testing at a range of loads, consistent with the performance test requirements in Subpart GG, that is, test at 30, 50, 75, and 100 percent load. If testing at these four loads is not reasonable, the condition allows the Permittee to propose to the Department what test loads will be reasonable and adequate, and the Department will have the responsibility to make a finding on that proposal. If EPA has already approved alternative test loads for the initial performance test the Department would allow those test loads if the information that went into that decision were still representative of the turbine operation.

Load measurements or load calculations from load surrogate measurements are for one-hour periods. The intent is to match the averaging period for the test method. Method 20 identifies a number of traverse points that vary with the size of the stack. From these points the tester is to choose at least 8 points for NO<sub>x</sub> measurements. The time at each point is to be at least one minute plus the average response time of the instrument. The recorded value is the average steady state response. Presumably, the steady state response would exclude some or all of the response time of the instrument. Three runs are to be done at each test load.

The three runs would represent 24 minutes of measurement time or more. A one-hour average load is therefore a reasonable approximation of a load period corresponding to the test method.

---

<sup>7</sup> Emergency Gas Turbine means any stationary gas turbine that operates as a mechanical or electrical power source only when the primary power source for a facility has been rendered inoperable by an emergency situation, as defined in 40 C.F.R. 60.331(e), effective 7/1/07.

## Condition 24, SO<sub>2</sub> Monitoring, Recordkeeping, and Reporting

**Legal Basis:** This condition requires the Permittee to comply with NSPS Subpart GG SO<sub>2</sub> or fuel quality monitoring, recordkeeping, and reporting.

**Factual Basis:** Monitoring, recordkeeping, and reporting requirements for this condition are described in NSPS Subpart GG and have been referenced here. No additional monitoring outside of the Subpart GG requirements is necessary to ensure compliance with the NSPS SO<sub>2</sub> standard.

*Monitoring:* Condition 24.3 incorporates NSPS Subpart GG fuel sulfur monitoring requirements. Per 40 C.F.R. 60.334(h)(3), the owner or operator may elect not to monitor the total sulfur content of the gaseous fuel combusted in the turbine, if the gaseous fuel is demonstrated to meet the definition of natural gas in 40 C.F.R. 60.331(u), regardless of whether an existing custom schedule approved by the Administrator requires such monitoring. The Permittee submitted a demonstration to EPA, pursuant to 40 C.F.R. 60.334(h)(3), to show that the fuel gas combusted at the stationary source meets the definition of natural gas as defined by 40 C.F.R. 60.331(u). EPA confirmed by letter dated January 14, 1998 that the stationary source has adequately demonstrated that total sulfur and methane content of the fuel gas meets the definition of fuel gas found in 40 C.F.R. 60.331(u). The details of the alternative monitoring schedule are included explicitly in this permit. Therefore, no monitoring of total sulfur content is necessary for EU ID 1 because it burns natural gas. .

*Recordkeeping:* The Permittee is required to maintain records of all sulfur monitoring data required by NSPS Subpart GG for five years as set out in 18 AAC 50.350(h)(5). This requirement is stated in Condition 64.

*Reporting:* NSPS Subpart GG SO<sub>2</sub> standard reporting requirements are incorporated in the permit in Condition 24.6. For the purpose of the EEMSP reports and summary report required under 40 C.F.R. 60.7(c), report daily periods during which the sulfur content of the fuel being fired in the turbine exceeds 0.8 percent, or emissions exceed 150 ppmvd as excess emissions. As stated in Conditions 16, 17, and 68, reports are to be submitted to the Department and EPA, and summarized in the operating report required under Condition 69.

## Condition 25, Steam Generating Units Subject to NSPS Subpart Db

**Legal Basis:** Applies because the Heat Recovery Steam Generator (ED ID 3) is a steam generating unit constructed, modified, or reconstructed after June 19, 1984 and has a heat input capacity from fuels combusted of greater than 29 MW (100 MMBtu/hr). Since the emission unit is gas-fired, some portions of this subpart do not apply to ED ID 3. The Subpart Db emission standards for SO<sub>2</sub>, PM, and opacity do not apply (40 C.F.R. 60.42b and 40 C.F.R. 60.43b). Additionally, since the emission unit is a duct burner, NO<sub>x</sub> CEM is not required (40 CFR 60.48b (b)). Also, recordkeeping that would be required for oil-burning emission units or duct burners is not applicable to this emission unit.

**Factual Basis:** The condition incorporates the NSPS Subpart Db emission standard for NO<sub>x</sub>. Monitoring for compliance with the standard is determined by performing a periodic source test for NO<sub>x</sub> at the same time as EU ID 1 is being tested unless EU ID 3 is not operational.

### **Conditions 26 - 30, New Source Performance Standards (NSPS) Subpart III Requirements**

**Legal Basis:** NSPS Subpart III 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 IDs 4 and 5 are subject to Subpart III under 40 C.F.R. 60.4200 because they were constructed in 2011 and 2012 respectively, after the applicability date.

**Factual Basis:** These conditions incorporate the Subpart III emissions standards applicable to EU IDs 4 and 5. The Permittee may not cause or allow EU IDs 4 and 5 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 on EU ID 5. EU IDs 4 and 5 must burn diesel fuel that meets the requirements of 40 C.F.R. 80.510(b). The emission rates of EU IDs 4 and 5 must comply with the emission standards stated in Condition 28.1 and 28.3 respectively. The Permittee shall provide a copy of the Manufacturer's Engine Certification for EU ID 4 in the next operating report required by Condition 69. The requirement in Condition 30 is added to fill gap in the reporting requirement under this Subpart.

### **Conditions 31 - 32, NESHAP Requirements**

**Legal Basis:** National Emission Standards for Hazardous Air Pollutants (NESHAPs) requirements apply to emission units not subject to NSPS requirements. EU ID 2 is a CI ICE constructed in 2001 and not subject to 40 C.F.R. 60, Subpart III. EU ID 2 is therefore subject to 40 C.F.R. 63, Subpart ZZZZ.

**Factual Basis:** These conditions incorporate the 40 C.F.R. 63, Subpart ZZZZ requirements that include keeping records and reporting of maintenance and management practices.

### **Condition 37, 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 38, Protection of Stratospheric Ozone, 40 C.F.R. 82**

**Legal Basis:** Condition 38.1 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 38.2 and 38.3 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 Nikiski Generation Plant 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. These conditions also incorporate applicable 40 C.F.R. 82 requirements. The Permittee may not cause or allow violations of these prohibitions.

### **Condition 39, 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 40, 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 41 - 43, 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 44, 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 45 - 46, 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 46.2 such that it referenced “submitted” (i.e., postmarked) rather than “received” in accordance with the timeframe of Condition 46.1.

#### **Condition 47, Good Air Pollution Control Practice**

**Legal Basis:** This condition ensures compliance with the applicable requirement in 18 AAC 50.346(b)(5) and applies to all emission units, **except** those subject to Federal emission standards, those subject to continuous emission or parametric monitoring, and for insignificant emission units, i.e., except EU IDs 1, 3, 4, and 5.

**Factual Basis:** The condition requires the Permittee to comply with good air pollution control practices for EU IDs 2 and 6.

The Department adopted this condition under 18 AAC 50.346(b) as Standard Permit Condition VI pursuant to AS 46.14.010(e). . Records kept in accordance with Condition

47.2 for units previously subject to GAPCP need to be maintained for 5 years in accordance with Condition 64 even if a unit is no longer subject to this condition.

The Department previously determined that this standard condition adequately meets the requirements of 40 C.F.R. 71.6(a)(3). No additional 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 condition meets the requirements of 40 C.F.R. 40 C.F.R. 71.6(a)(3).

Maintaining and operating equipment in good working order is fundamental to preventing unnecessary or excess emissions. Standard conditions for monitoring compliance with emission standards are based on the assumption that good maintenance is performed. Without appropriate maintenance, equipment can deteriorate more quickly than with appropriate maintenance. If appropriate maintenance is not applied to the equipment, the Department may have to apply more frequent periodic monitoring requirements (unless the monitoring is already continuous) to ensure that the monitoring results are representative of actual emissions.

The Permittee is required to keep maintenance records to show that proper maintenance procedures were followed, and to make the records available to the Department. The Department may use these records as a trigger for requesting source testing if the records show that maintenance has been deferred.

#### **Condition 48, 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 49, 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.

**Factual Basis:** The condition requires the Permittee to comply with 18 AAC 50.045(d), and take reasonable action to prevent particulate matter (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. Therefore, the Department concluded that the standard condition meet the requirements of 40 C.F.R. 71.6(a)(3).

### **Condition 50, 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 51, 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. Therefore, the Department concluded that the standard condition meets the requirements of 40 C.F.R. 71.6(a)(3).

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 52, 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 BACT, MACT, LAER, 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 68. Excess emission reporting under Condition 81 requires information on the



steps taken to minimize emissions. Monitoring of compliance for this condition consists of the report required under Condition 68.

### **Condition 53, 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 53.1 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 70.

### **Condition 54, 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 55 - 57, 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 55 through 57.

**Factual Basis:** These conditions supplement the specific monitoring requirements stated elsewhere in this permit. Compliance monitoring with Conditions 55 through 57 consist of the test reports required by Condition 62.

### **Condition 58, 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 59 - 62, 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 63, Particulate Matter (PM) Calculations**

**Legal Basis:** This condition requires the Permittee to reduce particulate matter 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 equation 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.

### **Condition 64, 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 65, 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 66, 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 67, 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 68, 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 12, Notification Form*

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

### **Condition 69, 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 66.*

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 70, 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 70.2 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 66.

### **Condition 71, 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 72, 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 73 - 75, Permit Changes and Revisions Requirements**

**Legal Basis:** The Permittee is obligated to notify the Department of certain off-permit source changes and operational changes under 18 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.

The Permittee did not request trading of emission increases and decreases as described in 40 C.F.R. 71.6(a)(13)(iii).

#### **Condition 76, 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 under 18 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 77 - 81, 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 82 - 83, 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 this condition under the Federally approved State operating program effective November 30, 2001.

**Factual Basis:** Table B of Operating Permit No. AQ1190TVP02 shows the permit shield that the Department granted to the Permittee. The table presents requirements that the Department determined were not applicable to the stationary source.

**ATTACHMENT A**

**FIGURE 1--SUMMARY REPORT--GASEOUS AND OPACITY EXCESS EMISSION AND MONITORING SYSTEM PERFORMANCE**

[Note: This form is referenced in 40 C.F.R. 60.7, Subpart A-General Provisions]

Pollutant (*Circle One*): SO<sub>2</sub> NO<sub>x</sub> TRS H<sub>2</sub>S CO Opacity

Reporting period dates: From \_\_\_\_\_ to \_\_\_\_\_

Company:  
 Emission Limitation: \_\_\_\_\_

Address: \_\_\_\_\_

Monitor Manufacturer: \_\_\_\_\_

Model No.: \_\_\_\_\_

Date of Latest CMS Certification or Audit: \_\_\_\_\_

Process Unit(s) Description: \_\_\_\_\_

Total source operating time in reporting period <sup>1</sup>: \_\_\_\_\_

Emission Data Summary <sup>1</sup>	CMS Performance Summary <sup>1</sup>
1. Duration of excess emissions in reporting period due to: a. Startup/shutdown ..... _____ b. Control equipment problems ..... _____ c. Process problems ..... _____ d. Other known causes ..... _____ e. Unknown causes ..... _____ 2. Total duration of excess emissions ..... _____ 3. Total duration of excess emissions x (100) / [Total source operating time] ..... _____ % <sup>2</sup>	1. CMS downtime in reporting period due to: a. Monitor equipment malfunctions ..... _____ b. Non-Monitor equipment malfunctions ..... _____ c. Quality assurance calibration ..... _____ d. Other known causes ..... _____ e. Unknown causes ..... _____ 2. Total CMS Downtime ..... _____ 3. [Total CMS Downtime] x (100) / [Total source operating time] ..... _____ % <sup>2</sup>

<sup>1</sup> For opacity, record all times in minutes. For gases, record all times in hours.

<sup>2</sup> For the reporting period: If the total duration of excess emissions is 1 percent or greater of the total operating time or the total CMS downtime is 5 percent or greater of the total operating time, both the summary report form and the excess emission report described in 40 C.F.R. 60.7(c) shall be submitted.

*Note: On a separate page, describe any changes since last quarter in CMS, process or controls.*

I certify that the information contained in this report is true, accurate, and complete.

Name: \_\_\_\_\_

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

Title: \_\_\_\_\_