

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

**Proposed Permit - March 7, 2014
BP Exploration (Alaska), Inc.
Flow Station #3**

**STATEMENT OF BASIS
of the terms and conditions for
Permit No. AQ0269TVP02**

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INTRODUCTION

This document sets forth the statement of basis for the terms and conditions of Operating Permit No. AQ0269TVP02.

STATIONARY SOURCE IDENTIFICATION

Section 1 of Operating Permit No. AQ0269TVP02 contains information on the stationary source as provided in the Title V permit application.

The stationary source is owned by BP Exploration (Alaska) Inc., ConocoPhillips Alaska, Inc., Chevron USA, Inc. and ExxonMobil Alaska Production, Inc., and operated by BP Exploration (Alaska) Inc., and BP Exploration (Alaska) Inc. is the Permittee for the stationary source's operating permit. The SIC code for this stationary source is 1311 – Crude Petroleum and Natural Gas Production. The NAICS code for this stationary source is 211111.

The stationary source receives three-phase crude oil from the surrounding production pads where it is separated into crude oil for sale, produced water for reinjection, and natural gas for use as fuel and for reinjection.

Drill Site Operations. Production/injection wells are typically grouped together on a gravel pad, with their well chokes and well testing equipment enclosed in modules. For purposes of the Oil and Natural Gas (ONG) MACT, the drill site emergency generator engines are each located on separate surface sites which are not aggregated for major source determinations. The drill sites are not affected by the ONG MACT, as there are no glycol dehydration units or storage tanks with flash emissions at these sites.

Production fluids from these wells are often commingled into common carrying lines at these drill sites which then flow to Flow Station #3 for processing. Additionally, fluids (sea water, produced water, enhanced oil recovery fluids, etc.) can be routed to drill sites for diversion into injection wells. As the need arises, mobile equipment is used at drill sites to either service an existing well or drill a new well.

For purposes of Title I and Title V (Part 71) permitting, the Department has determined this stationary source to consist of the Flow Station #3 (FS#3) production pad structures and associated permanent emission units and the Prudhoe Bay Unit drill sites (DS) 6, 7, 13, 14, and 15 using the "wagon wheel" methodology for Prudhoe Bay developed in 2003 (see the Statement of Basis for BPXA Gathering Center 1, AQ Permit AQ0182TVP01, issued October 20, 2003). Temporary emission units and mobile equipment (*e.g.*, drill rigs and associated activities and equipment) that periodically operate at the drill sites are part of the stationary source, but are governed by a separate operating permit (AQ0455TVP01).

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 Flow Station #3 that have specific monitoring, recordkeeping, and reporting requirements are listed in Table A of Operating Permit No. AQ0269TVP02.

Table A of Operating Permit No. AQ0269TVP02 contains information on the emission units regulated by this permit as provided in the permit renewal application. The table is provided for informational and identification purposes only. Specifically, the emission unit rating/size provided in the table does not create an enforceable limit.

This stationary source also has an inventory of storage tanks with a storage capacity greater than 10,000 gallons. While two tanks are also listed in Table A as regulated tanks, the following is a full listing of such storage tanks:

Table F – Inventory of Storage Tanks at Flow Station #3 with a Storage Capacity Greater than 10,000 Gallons^(a)

Tag No.	Capacity (gallons)	Service	Installation, Delivery, or Commenced Construction Date
14-1962 ^(c) (EU ID 21)	592,200	Water and Oil	1990
14-1935	428,022	Fire Water	1978
14-1933	420,000	Produced Water	1978
14-1934	420,000	Produced Water	1978
14-1951 ^(c) (EU ID 22)	418,606	Produced Water	Commenced Construction 1981 and Installed 1982
14-1984	315,000	Produced Water	Commenced Construction 1981 and Installed 1982
37-1902 (at DS14)	84,000	Methanol/Water	Commenced Construction 1981 and Installed 1982
37-1902-1 (at DS 13)	84,000	Methanol/Water	Commenced Construction 1981 and Installed 1982
14-1932	82,824	Glycol	1978
14-1931	36,036	Arctic (No. 1) Diesel	1978
14-1900-10 ^(b)	17,598	Heat Medium	1981
14-1938	14,500	Corrosion Inhibitor DVE4D018	1978
14-1273	11,200	Triethylene Glycol	1977

Notes:

- (a) Information in this table was provided to the Department on April 14, 2011 by BPXA in a permit renewal application amendment.
- (b) Tank tag no. 14-1900-10 is out of service.
- (c) Tanks 14-1951 and 14-1962 are included in Table A of Permit No. AQ0269TVP02.

EMISSIONS

A summary of the potential to emit (PTE)¹ and assessable PTE, as indicated in the permit renewal application submitted by BP Exploration (Alaska) Inc. for Flow Station #3 and verified by the Department, is shown in the table below.

Table G - Emissions Summary, in Tons Per Year (TPY)^(d, i)

Pollutant	NO _x	CO	PM ₁₀	SO ₂	CO _{2e} ^(f)	VOC	HAPs ^(e)	Total (excluding CO _{2e} and HAPs)
FS#3 (Production Facility) PTE ^(a)	4,248	1,392	92	127	856,644	37	16.3	5,896
Drill Site PTE ^(h)	28	6.3	1.1	1.1	1,242	1.2	0.07 ^(b)	37
IEU Portable Heaters ^{(c),(d)} PTE	9.8	2.5	0.5	10	10,513	0.2	0.5	24
Total PTE	4,285	1,401	94	138	868,400 ^(g)	38	16.9 ^(b)	5,957
Assessable PTE	4,285	1,401	94	138	--	38	--	5,957

Notes:

- (a) The production pad includes diesel-fired engines EU IDs 15, 16, and 17 as well as production pad tanks, turbines, stationary heaters, and flares.
- (b) HAP emissions from all drill sites associated with FS#3 are summarized here. However, drill site emissions are not aggregated with each other or with the production pad when determining the HAP major source status of the source (see discussion below).
- (c) One seventh of the total estimated emissions from all portable IEU heaters used throughout the Greater Prudhoe Bay are summarized here. Since the portable IEU heaters are used throughout the Greater Prudhoe Bay field, the total emissions have been split equally among the seven GPB production facilities (LPC, GC-1, GC-2, GC-3, FS#1, FS#2, and FS#3). An aggregated value at any individual drill site or production facility is unknown and varies considerably.
- (d) Non-road engine emissions are not included since emissions from nonroad engines are not used when determining the classification (major or minor) of a stationary source under AS 46.14.130 and are not included for fees.
- (e) The PTE of each single HAP is less than 10 tons per year. HAP emissions are almost all VOCs, therefore, to avoid double counting HAP emissions are not included in the "Total" column.
- (f) Greenhouse gas (GHG) means the air pollutant defined in 40 C.F.R. 86.1818-12(a) as the aggregate group of six greenhouse gases: carbon dioxide (CO₂), nitrous oxide (N₂O), methane (CH₄), hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride. The stationary source emits or has the potential to emit only CO₂, N₂O and CH₄.
- (g) CO_{2e} or carbon dioxide equivalent emissions are defined as the sum of the mass emissions of each individual GHG adjusted for its global warming potential (GWP). Total GHG CO_{2e} calculations were submitted by the Permittee on April 14, 2011 and amended on April 5, 2013.
- (h) The drill site PTE includes diesel-fired engines EU IDs 23 through 27. Drill site PTE is based on a maximum annual operating time of 500 hours per year as suggested by EPA in the September 6, 1995 memo authored by John S. Seitz titled "Calculating PTE for Emergency Generators".
- (i) Emissions are based on calculations submitted by the Permittee on April 14, 2011 and amended on April 5, 2013.

¹ *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.

The assessable PTE listed under Condition 44.1 is the sum of the emissions of each individual air pollutant other than CO₂e for which the stationary source has the potential to emit quantities greater than 10 TPY. The emissions listed in Table G are estimates to be used for informational purposes only. The listing of the emissions does not create an enforceable limit to the stationary source.

For criteria pollutants, emissions are as provided in the permit application, as follows: GE MS 5352B, GE MS 5322R, and EGT (Ruston) TB 5000 turbine PTE values for NO_x, CO and PM₁₀ are set by BACT limits stated in Conditions 10 and 11 of the permit. GE LM 1500 turbine CO PTE is based on source test results. Otherwise, turbine PTE values for all criteria pollutants except SO₂ are estimated based on AP-42 Tables 3.1-1 and 3.1-2a (4/00).

Gas-fired heater PTE values for all criteria pollutants, except SO₂, are estimated based on AP-42 Tables 1.4-1 and 1.4-2 (7/98).

For EU IDs 15, 16, and 17 PTE values for all criteria pollutants are based on an operating time limit in Condition 15 (200 hours per consecutive 12-month period for the emergency generator and fire water pump engines), and except for SO₂ estimated based on AP-42 Table 3.4-1 (10/96) and AP-42 Table 3.3-1 (10/96). EU IDs 23 through 27 engine PTE values for all criteria pollutants are based on an assumed maximum 500 hours of annual operation by each drill site engine emergency generator according to the guidance provided by EPA in the 1995 memo authored by John Seitz, and except for SO₂ are based on AP-42 Table 3.4-1 (10/96) and AP-42 Table 3.3-1 (10/96).

Flare PTE values for all criteria pollutants except SO₂ are based on AP-42 Tables 13.5-1 and 13.5-2 using pilot, purge and sweep gas quantities.

SO₂ PTE values for all emission units are based on sulfur mass balance and a liquid fuel sulfur limit of 0.14% by weight in Condition 18 and 100 ppmv H₂S limit in the fuel gas in Condition 17.

For Greenhouse Gas (GHG) emissions calculations were submitted by the Permittee on April 14, 2011 and amended on April 5, 2013. PTE for CO₂e was estimated based on emission factors found in 40 C.F.R. 98, Subpart C, Tables C-1 and C-2.

HAP emissions were estimated in the permit renewal application using GRI-HAPCalc Version 3.01 software, AP-42 emission factors, and Ventura County Air Pollution Control District (VCAPCD) emission factors for combustion units. Tank HAP emissions were estimated using TANKS v.09d. HAP emissions were estimated for liquid fuel-fired emission units EU IDs 15, 16, and 17 using the 200 hour operating time limit per year for each engine and EU IDs 23 through 27 assuming 500 hours of operation per year for each emergency engine.

Total aggregate HAP emissions are estimated at 16.9 TPY with a maximum single HAP (formaldehyde) emission rate of 4.6 TPY. The HAP emissions shown in Table G are the total HAP PTE for all regulated emission units at all Flow Station #3 locations. However, per 40 C.F.R. 71.2, emissions from oil or gas exploration or production wells with their associated equipment are not aggregated when determining the total potential to emit HAPs. Therefore, emissions from units located at any drill site are not aggregated when determining the HAPs major status of the stationary source. The HAPs emissions total for the Production pad emission units (*i.e.*, excluding emissions from units at drill sites) is approximately 16.3 TPY.

Based on these findings, FS#3 is not a major source of HAP emissions since the calculated HAP emissions are less than the triggers of 10/25 TPY.

BASIS FOR REQUIRING AN OPERATING PERMIT

In accordance with AS 46.14.130(b), an owner or operator of a Title V source² 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 stationary 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 for Hazardous Air Pollutants under Section 112 of the Clean Air Act; and
- Another stationary source designated by the Federal Administrator by regulation.

This stationary source requires an operating permit because it is classified under 18 AAC 50.326(a), 40 C.F.R. 71.3(a), and EPA's March 2011 *PSD and Title V Permitting Guidance for Greenhouse Gases* as:

- A major stationary source of air pollutants as defined in Section 302 of the Clean Air Act that directly emits, or has the potential to emit, 100 TPY or more of any air pollutant; and
- An existing source that emits or has a PTE equal to or greater than 100,000 TPY of CO_{2e} **and** 100 TPY GHGs on a mass basis.

AIR QUALITY PERMITS

Previous Air Quality Permit-to-Operate

The most recent permit-to-operate issued for this stationary source is Permit-to-Operate No. 9473-AA012. This permit-to-operate included all construction authorizations issued through July 29, 1996, since it was issued before January 18, 1997 (the effective date of the divided Title I/Title V permitting program). As discussed below, the construction permit portion of Permit No. AQ0269TVP01 was issued to revise and rescind specific terms and conditions of Permit-to-Operate No. 9473-AA012.

Title I (Construction and Minor) Permits

EPA Prevention of Significant Deterioration (PSD) permit number PSD-X80-09 and PSD-X81-13, as amended through August 29, 1997 contain specific BACT requirements for Flow Station #3.

² *Title V source* means a stationary source classified as needing a permit under AS 46.14.130(b) [ref. 18 AAC 50.990(111)].

On December 5, 1997, ARCO Alaska, Inc. (ARCO was the operator of the source in 1997) submitted a construction permit application to revise or rescind conditions in Permit-to-Operate No. 9473-AA012. ARCO submitted the application with their Title V operating permit application.

ARCO proposed that terms and conditions of the old permit-to-operate be updated to match the BACT limits in EPA PSD permit Nos. PSD-X80-09 and PSD-X81-13, amended August 29, 1997. The Department addressed these and other revisions under Operating/Construction Permit No. AQ0269TVP01 issued on March 31, 2003. The Department included in the Statement of Basis for Permit No. AQ0268TVP01, the details pertaining to the Permit-to-Operate No. 9473-AA012 revisions beginning on page 6 and ending on page 10 of the Statement of Basis for that permit, including Tables C through E.

The Department issued Construction Permit No. AQ0269MSS01 to this stationary source on November 21, 2005 to increase the permissible H₂S content of fuel gas burned, added a liquid fuel sulfur content limit, and added operational limits to protect ambient air SO₂ standards. All stationary source-specific requirements established in this Title I permit are included in the renewed Title V operating permit as described in Table I.

Title V Operating Permit Application, Revisions and Renewal History

The initial Title V Operating Permit No. AQ0269TVP01 was issued for FS#3 effective May 1, 2003. All stationary source-specific requirements established in AQ0269TVP01 are included in the renewed Title V operating permit as described in Table J.

The Permittee submitted a permit renewal application on September 28, 2007.

Additional information (PTE calculations in Excel format) was submitted by BPXA on April 15, 2008 and received by the Department on April 17, 2008.

Additional information was submitted and received via email on November 1, 2010 and December 13, 2010. This information included a 40 C.F.R. 63, Subpart ZZZZ citation-level applicability determination.

Additional information was received on April 14, 2011. This information included revised source identification information, general emissions information, proposed terms and conditions for 40 C.F.R. 63, Subpart ZZZZ, updated HAP and Greenhouse Gas Emissions PTE estimates, a storage tank inventory and basis for NSPS Subpart K, Ka, and Kb shields, permit shield requests for 40 C.F.R. 63, Subpart ZZZZ and 40 C.F.R. 60, Subparts K, Ka, and Kb, and tank emission estimates (VOCs and HAPs). Further, on April 5, 2013, BPXA submitted permit renewal application updates to address Federal rule changes.

Updates to the emission unit inventory have been made in permit AQ0269TVP02 compared to previous Title V operating permit no. AQ0269TVP01. The updates and their bases are documented in Table H.

Table H – Emission Unit Inventory Revisions

Equipment Tag No.	Rating in Permit AQ0269TVP01	Revised Rating in Permit AQ0269TVP02	Explanation
Group II - Liquid Fuel-Fired Equipment at the Production Pad			
EDG-14-1599	300 hp	255 hp	New information – corrected rating based on engine name plate information
Group V – Fixed Roof Storage Tanks (>10,000 gallon capacity) at the Production Pad			
14-1951	10,472 bbls	9,967 bbls	New information – corrected rating
Group VI – Liquid Fuel-Fired Equipment at Drill Sites 6, 7, 13, 14, and 15			
80-805	NA	400 Hp (300 kW)	Located at DS6 – not previously included as part of the FS#3 stationary source
80-807	NA	400 Hp (300 kW)	Located at DS7 – not previously included as part of the FS#3 stationary source
80-854	NA	940 Hp (700 kW)	Located at DS13 – not previously included as part of the FS#3 stationary source
80-872	NA	1,300 Hp (965 kW)	Located at DS14 – not previously included as part of the FS#3 stationary source
80-875	NA	1,340 Hp (1,000 kW)	Located at DS15 – not previously included as part of the FS#3 stationary source

COMPLIANCE HISTORY

The stationary source has operated at its current location since 1978. Review of the permit files for this stationary source, which includes the past inspection reports, indicates a stationary source that is generally operating in compliance with its operating permit and Air Quality Control Regulations. Non-compliance occurs infrequently and is generally associated with self-reported excess visible emissions during planned and unplanned flaring events.

APPLICABLE REQUIREMENTS CARRIED FORWARD FROM PRE-CONSTRUCTION PERMITS

Incorporated by reference at 18 AAC 50.326(j), 40 C.F.R. Part 71.6 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) and any pre-construction permits issued by the EPA.

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 effective January 18, 1997 or later; and
- Minor permits issued effective October 1, 2004 or later.

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 are 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.

Operating/Construction Permit No. AQ0269TVP01 included all construction authorizations issued through March 31, 2003, and was issued after January 18, 1997 (the effective date of the divided Title I/Title V permitting program). Permit No. AQ0269TVP01 revised and rescinded specific terms and conditions of Permit-to-Operate No. 9473-AA012 and carried forward applicable stationary source-specific terms and conditions of the permit-to-operate. Details pertaining to the revisions made by permit No. AQ0269TVP01 to Permit No. 9473-AA012 are included beginning on page 6 and ending on page 10 of the Statement of Basis to Permit No. AQ0269TVP01, including Tables C through E of that document.

Other pre-construction permits that currently apply to this stationary source include EPA PSD permit Nos. PSD-X80-09 and PSD-X81-13, each amended August 29, 1997, and Minor Permit No. AQ0269MSS01, issued by the Department on November 21, 2005.

Table I and Table J below list the requirements carried forward from Minor Permit No. AQ0269MSS01 and Operating Permit No. AQ0269TVP01, respectively, into Operating Permit No. AQ0269TVP02. These tables document how/if the conditions carried forward were revised compared to the previously issued permits. Table I and Table J do not include standard and general conditions.

Table I - Comparison of Minor Permit No. AQ0269MSS01 Conditions to Operating Permit No. AQ0269TVP02 Conditions³

Permit No. AQ0269MSS01 Condition Number	Description of Requirement	Permit No. AQ0269TVP02 Condition Number	How condition was revised
1	The Permittee shall not use fuel gas with an H ₂ S concentration greater than 100 ppmv (annual average) in existing gas-fired EUs (listed as EU IDs 1 through 14 and 18 through 20 in Operating Permit No. AQ0269TVP01).	17	Minor Permit Condition 1 was combined with Minor Permit Condition 2 to simplify the permit. No other changes.
2	The Permittee shall not use fuel gas with an H ₂ S concentration that exceeds 133 ppmv (instantaneous) in existing gas-fired EUs (listed as EU IDs 1 through 14 and 18 through 20 in Operating Permit No. AQ0269TVP01).	17	Minor Permit Condition 1 was combined with Minor Permit Condition 2 to simplify the permit. No other changes.
3	The Permittee shall not use liquid fuel with a sulfur concentration greater than 0.14 percent by weight in existing liquid fuel-fired emission units (listed as EU IDs 15 through 17 in Operating Permit No. AQ0269TVP01).	18	No change
4	The Title I requirement for the 25 ppmv fuel gas H ₂ S limit (Condition 9 of Operating Permit No. AQ0269TVP01) is rescinded.	N/A	Condition 9 of AQ0269TVP01 was not carried forward into AQ0269TVP02 through the renewal process.
5	The Permittee shall monitor, record, and report the liquid fuel sulfur content and prepare an Excess Emissions and Permit Deviation Report if the limit in Minor Permit Condition 3 is exceeded.	18.1 and 18.2	No change
6	The Permittee shall monitor, record, and report fuel gas H ₂ S concentration, and prepare an Excess Emissions and Permit Deviation Report if a limit specified in Minor Permit Conditions 1 or 2 is exceeded.	17.1, 17.2, and 17.3	No change

³ This table does not include all standard and general conditions.

Table J - Comparison of Operating Permit No. AQ0269TVP01 Conditions to Operating Permit No. AQ0269TVP02 Conditions⁴

Permit No. AQ0269TVP01 Condition Number	Description of Requirement	Permit No. AQ0269TVP02 Condition Number	How condition was revised
3a, 3b, 3c, 3d and 3e	Visible Emissions Standards	1	<p>Effective 9/13/07, the EPA approved certain changes to the SIP limits, including replacement of the “more than 3 minutes in any one hour criterion” with a six minute average criterion. The approval eliminated the need for the footnotes found in the expiring permit in association with these conditions and allows the deletion of the “3-minute” criterion.</p> <p>Presentation of the BACT 10% opacity limit carried forward from EPA permits PSD-X80-09 and PSD-X81-13 is moved to Conditions 10 and 11.</p> <p>Associated MR&R has been updated based on the revised version of Standard Permit Condition IX adjusted for the owner request to use non-standard language (exclude smoke/no smoke).</p>
4	Particulate Matter Emission Standard	6	<p>No change to the limit.</p> <p>Associated MR&R has been updated based on the revised version of Standard Permit Condition IX.</p>
5	Sulfur Compound Emissions	9	<p>No change to the limit.</p> <p>Associated MR&R has been updated based on the revised version of Standard Permit Condition XI adjusted to cross reference the turbine NSPS, for the ambient air quality related fuel sulfur limits, additional elements added for gaseous fuels, and for optional fuel sampling protocols.</p>
6 and Table 2	Turbine BACT limits (EU IDs 3 through 7)	10 and Table B	<p>No change to the NO_x, CO, PM or opacity limits. Added a table note requiring use of good operational practices at all times.</p>

⁴ This table does not include all standard and general conditions.

			<p>BACT limits are from EPA PSD permits PSD-X80-09 (PSD II) as revised 8/29/97.</p> <p>No change to the periodic MR&R for NO_x emissions. Added requirements for periodic MR&R for CO, PM, opacity and good operational practices.</p>
7 and Table 3	Turbine BACT limits (EU IDs 8 and 9)	11 and Table C	<p>No change to the NO_x, CO, SO₂, PM or opacity limits. Added a table note requiring good operational practices at all times.</p> <p>BACT limits are from EPA PSD permits PSD-X81-13 (PSD IV) as revised 8/29/97.</p> <p>No change to the periodic MR&R for NO_x emissions. Added requirements for periodic MR&R for CO and opacity.</p>
8	Fuel Consumption Monitoring	12	Added EU IDs 23 through 27 to condition.
9	Fuel Gas Sulfur Content Limit (EU IDs 8 and 9)	N/A	This limit was not carried forward from permit AQ0269TVP01 because it was rescinded by Minor Permit no. AQ0269MSS01. The revised limit is carried forward from Minor Permit No. AQ0269MSS01. See Table I of this Statement of Basis for additional information.
10	Hours of Operation Monitoring	13	Added EU IDs 23 through 27 to condition.
11	Operating Hours Limit for Gas Turbines (EU IDs 1 and 2)	14	Similar updated provisions.
12	Operating Hours Limit for EU IDs 15 through 17	15	Similar updated provisions.
None	Owner-Requested Operating Hours Limit for EU IDs 23 through 27	16	During renewal of permit AQ0269TVP01, the Permittee requested that the renewed permit include a limit on the operating hours of EU IDs 23 through 27 of 100 hours per engine per calendar year for operational readiness testing and maintenance checks, with no provisions for non-emergency operation under the ORL.

None	Owner Requested Limit for EU ID 21. Install, maintain, and operate a closed vent system and control device.	19	During renewal of permit AQ0269TVP01, the Permittee requested that the renewed permit include a requirement to install, maintain, and operate a closed vent system and control device meeting the specifications of 40 C.F.R. 60.112b(a)(3) for EU ID 21.
14	NSPS Subpart A Excess Emissions and Monitoring Systems Performance Report.	23	Revised to make reporting consistent with the custom fuel monitoring schedule dated October 18, 1993 and specific to NSPS Subpart GG monitoring requirements.
19	NSPS Subpart Ka for EU ID 22	29	Removed the requirement to provide the information in 40 CFR 60.113a(a)(2) within 45 days of the effective date of permit AQ0269TVP01. This one-time requirement has been completed.
20	NSPS Subpart Kb for EU ID 21	N/A	Condition not carried forward. In a letter to BPXA dated August 11, 2005, EPA determined that the tank (Tag No. 14-1962; EU ID 21) meets the definition of a process tank in §60.111b (as amended 10/15/03). Therefore, this vessel is exempt from Subpart Kb.
23	NSPS Subpart GG Fuel Sulfur Monitoring and Reporting.	31	Revised to include the EPA-approved NSPS Subpart GG Fuel Sulfur Monitoring Requirements (as of July 8, 2004 revision) with revisions as allowed under EPA-approved October 2, 1997 alternate H ₂ S sampling method and the July 13, 1993 custom fuel monitoring schedule (with additional clarifications given in correspondence dated 8/20/93, 10/18/93, and 8/19/96). In addition, the permit has been revised to include the provision for an annual reporting frequency as stated in the October 18, 1993 EPA letter.
None	NESHAP Subparts A and ZZZZ	32 through 36	Added the applicable requirements of 40 C.F.R. 63 Subparts A and ZZZZ, which apply to EU IDs 15 - 17 and 23 - 27.

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 selected conditions that are not included in the permit for specific reasons.

- **NSPS Subpart K:** The requirements of 40 C.F.R. 60, Subpart K (Standards of Performance for Storage Vessels for Petroleum Liquids for which Construction, Reconstruction, or Modification Commenced After June 11, 1973 and Prior to May 19, 1978) do not apply to Tank Tag Nos. 14-1931, 14-1932, 14-1933, 14-1934, 14-1935, 14-1938, and 14-1273 for the following reason(s):
 - i. 14-1273, 14-1932 and 14-1935: Vessel not storing a *petroleum liquid*, as defined in subpart;
 - ii. 14-1273, 14-1931 and 14-1938: vessel storage capacity below threshold (40,000 gallons);
 - iii. 14-1933 and 14-1934: the volatile organic liquid is stored prior to custody transfer;
 - iv. 14-1951, 14-1962, 14-1984: commenced construction after the effective date of subpart (5/19/78);
 - v. 14-1273: vessel is designed to operate as a pressure vessel.
- **Risk Management Plan (40 C.F.R. 68):** The stationary source is not subject to the general duty clause under the Clean Air Act Section 112(r)(1) (40 C.F.R. 68.10) because FS#3, a crude petroleum and natural gas extraction facility (per NAICS code 211111 which is relevant to 40 C.F.R. 68) does not process or store regulated flammable or toxic substances in excess of threshold quantities in a process as determined in §68.115.
- **Compliance Assurance Monitoring (40 C.F.R. 64):** The stationary source does not use a control device to achieve compliance with any emission limitation or standard and is therefore not subject to Compliance Assurance Monitoring as it does not satisfy the criteria of 40 C.F.R. 64.2(a)(2).
- **Oil and Gas Production Facility Standards (40 C.F.R. 63, Subpart HH):** The Alaska Oil and Gas Conservation Commission (AOGCC) provides statistics for crude oil pools in Alaska (See http://doa.alaska.gov/ogc/annual/current/annindex_current.html). The Prudhoe Bay Gathering Centers 1, 2 and 3 and Flow Stations (1, 2 and 3) each receive crude oil produced from the Prudhoe Bay Unit - Prudhoe Oil Pool. AOGCC's Pool Statistics for the Prudhoe Bay Unit - Prudhoe Oil Pool lists an Initial Producing GOR (see "Original GOR SCF/STB") of 730 scf per stock tank barrel and an API Gravity of 28 degrees. The Initial Producing GOR for the Prudhoe Bay pools, based on early (1968) production data, is less than 0.31 cubic meters per liter (1750 scf/bbl).

Additionally, the API Gravity of the produced crude oil is less than 40 degrees. BPXA claims that the Prudhoe Bay Gathering Centers (1, 2 and 3) and Flow Stations (1, 2 and 3) each exclusively process, store, or transfer crude oil produced from the Prudhoe Pool, which meets the definition of black oil (as defined in 40 C.F.R. 63.761). Therefore, FS#3 is not subject to the requirements of NESHAP Subpart HH as per 40 C.F.R. 63.760(e), except BPXA was required to maintain records of the exemption to NESHAP Subpart HH for a total of five years as per 40 C.F.R. 63.10(b)(3). BPXA fulfilled the requirement to maintain records of the stationary source's exemption to NESHAP Subpart HH for a total of five years. Since, the provisions of NESHAP Subparts A and HH are silent on whether the records must be retained indefinitely, the Department removed the recordkeeping requirements of 40 C.F.R. 63.10(b)(3) from the permit as it relates to NESHAP Subpart HH.

- **Crude Oil and Natural Gas Production, Transmission and Distribution Standards (40 C.F.R. 60 Subpart OOOO).** BPXA's application supplement for Flow Station #3 does not have any onshore affected facilities listed in 40 C.F.R. 60.5365(a) through (g) for which BPXA commenced construction, modification, or reconstruction after August 23, 2011 (the applicability date of the rule).

STATEMENT OF BASIS FOR THE PERMIT CONDITIONS

The State and Federal regulations for each condition are cited in Operating Permit No. AQ0269TVP02. 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 through 5, Visible Emissions Standard and MR&R

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

- 18 AAC 50.055(a) applies to the operation of fuel-burning equipment and industrial processes. EU IDs 1 through 20 and 23 through 27 are fuel-burning equipment.

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

Factual Basis: Condition 1 prohibits the Permittee from causing or allowing visible emissions in excess of the applicable standard in 18 AAC 50.055(a)(1). The Permittee shall not cause or allow the equipment to violate these standards/limits.

MR&R requirements are listed in Conditions 2 through 5 of the permit. These conditions have been adopted into regulation as Standard Permit Condition IX (SPC IX).

These conditions have been modified for this permit as follows:

- The Department added a footnote in Condition 2.1 which states “Emergency operations are exempt from the visible emissions observations deadlines associated with emission unit “operation” under this condition”.
- In addition, the Permittee has opted not to use the Smoke/No Smoke plan, and requested that this option not be included in the permit, so the Department did not include this provision in the condition.
- The Department also revised the Standard Permit Condition language for flares as incorporated into this permit in Condition 5 to read “*The Permittee shall observe one daylight flare event within 12 months after the preceding flare event observation or within 12 months after the permit effective date, whichever is later.*” The Department has also revised the footnote to Condition 5 to read “*For purposes of this permit, a “flare event” is flaring of gas at a rate that exceeds the source’s de-minimis pilot, purge, and assist gas rates for a minimum of 18 consecutive minutes. It does not include non-scheduled release operations, i.e., process upsets, emergency flaring, or de-minimis venting of gas incidental to normal operations.*”

Beyond as noted above, 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 that unit-specific or stationary-source-specific conditions would better meet the requirements. Therefore, the Department concludes that the standard conditions as modified meet the requirements of 40 C.F.R. 71.6(a)(3).

The Permittee must establish by actual visual observations, which 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 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.

Condition 5 was developed to provide a standardized version of flare monitoring that is not dependent upon the type or design of upstream equipment. It has been claimed that gas-fired flares normally burn without emitting visible emissions, but actual field data demonstrating this assumption is not available. However, gas-fired flares have been shown to smoke when a control device, *i.e.*, a knockout drum, flare scrubber, gas or steam assist, or vapor recovery system malfunctions. Thus, the condition sets out a protocol to collect actual field data to determine compliance with the 20 percent visible emissions standard for flares.

Gas-Fired Fuel Burning Equipment:

Monitoring – The monitoring of gas-fired emission units for visible emissions is waived, *i.e.*, no source testing will be required. The Department has found that natural gas-fired equipment inherently has negligible visible emissions. Therefore, certification that an emission unit burns only natural gas ensures that the State visible emissions standard is met.

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 Equipment:

Monitoring – The visible emissions shall be observed using Method-9 as detailed in Condition 2. The Permittee has opted not to use the Smoke/No Smoke plan, so this option was not included in the permit.

For EU IDs 15 through 17, the Permittee is required to do Visible Emissions Observations according to Conditions 2 through 4 for any unit that operates more than the operating time limit in Condition 15 (200 hours in any rolling 12-month period). For EU IDs 23 through 27, the Permittee is required to do Visible Emissions Observations according to Conditions 2 through 4 for any unit that operates more than 400 hours in any rolling 12-month period. Visible emissions shall be observed using the Method-9 Plan as detailed in Conditions 2 through 4. Corrective actions such as maintenance procedures and either more frequent or less frequent testing may be required depending on the results of the observations.

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

Reporting - The Permittee is required to report: 1) the results of visible emissions observations, 2) incidents when emissions in excess of the State visible emissions standard or the BACT opacity limit have been observed, and 3) deviations from permit conditions. The Permittee is required to include copies of the results of all visible emission observations with the operating report.

Flares:

Monitoring for flares (EU IDs 18 through 20) requires annual Method 9 observations of scheduled flaring events lasting at least 18 consecutive minutes. The monitoring schedule for flares is within 12 months after the preceding flare event observation or within 12 months after the permit effective date, whichever is later. If an event does not occur within 12 months after the preceding event, then BPXA conducts a reading at the next scheduled event. In a practical sense, flaring events are intermittent, so the monitoring strategy in Condition 5 applies equally to regularly and intermittently operated flares. The Permittee must report the results of these observations to the Department, however per Condition 5.3, no report is due if no event occurs during the reporting period.

Conditions 6 through 8, Particulate Matter (PM) Standard and MR&R

Legal Basis: These conditions ensure compliance with the applicable requirements in 18 AAC 50.055(b). These requirements apply to operation of all industrial processes and fuel burning equipment in Alaska.

- EU IDs 1 through 20 and 23 through 27 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 6 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 7 and 8 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 particulate matter.

Gas-Fired Fuel Burning Equipment:

For gas fired emission units, MR&R conditions are Standard Condition VIII adopted into regulation pursuant to AS 46.14.010(e). The Department determined that these standard conditions 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 permit conditions meet the requirements of 40 C.F.R. 71.6(a)(3).

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 Equipment:

Monitoring – For each of EU IDs 15 through 17, as long as the emission unit does not operate more than the operating time limit in Condition 15 (200 hours in any rolling 12-month period), monitoring shall consist of an annual compliance certification.

For each of EU IDs 23 through 27, as long as the emission unit does not operate more than 400 hours in any rolling 12-month period, monitoring shall consist of an annual compliance certification.

Recordkeeping - The Permittee is required to record the results of PM source tests as set forth in Section 6.

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

Flares:

Monitoring of gas-fired flares for particulate matter is waived, *i.e.*, no source testing will be required, because of the difficulty and questionable results these tests produce when applied to flares. The Department has recognized this fact by incorporating the waiver in the State Implementation Plan adopted in November 1984. This plan was approved as part of the September 13, 2007 SIP approval but not incorporated by reference. No recordkeeping or reporting is required.

Condition 9, Sulfur Compound Emissions and MR&R

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 20 and 23 through 27 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 fuel (*e.g.*, coal, natural gas, fuel oils). Fuel sulfur testing will verify compliance with the SO₂ emission standard.

Liquid Fuels:

For oil fired fuel burning equipment, the MR&R conditions are Standard Permit Conditions XI and XII adopted into regulation pursuant to AS 46.14.010(e), but adjusted for fuel sulfur thresholds set out in Condition 18. The subparagraphs also have stylistic changes that do not match those of the standard sulfur compound condition. These edits provide additional specificity not included in the Standard Condition clauses, and as such, better meet the State Air Quality Control Program.

Except as discussed above, the Department has determined that the standard permit conditions adequately meet the requirements of 40 C.F.R. 71.6(a)(3).

Gaseous Fuels:

Fuel gas sulfur is measured as hydrogen sulfide (H₂S) concentration in ppm by volume (ppmv). Fuel gas containing no more than 4000 ppmv H₂S will always comply with this emission standard. This is true for all fuel gases, even with no excess air. Fuel gas with an H₂S concentration of even 10 percent of 4000 ppmv is currently not available on the North Slope of Alaska and is not projected to be available during the life of this permit.

For EU IDs 3 through 9, the Permittee shall demonstrate compliance with the sulfur compound emissions standard of Condition 9 by monitoring the fuel sulfur content of the fuel gas burned according to the procedures outlined in Conditions 31.1 and 31.2 for NSPS Subpart GG.

For EU IDs 1 through 14, and 18 through 20, Condition 9.2 requires the Permittee to conduct a monthly analysis for the fuel gas sulfur content using either ASTM D4084, D5504, D4810, D4913, D6228 or GPA Standard 2377, or a listed method approved in 18 AAC 50.035(b)-(c) or 40 C.F.R. 60.17 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 the sulfur content analysis with the operating report.

Conditions 10 through 15, 17, and 18, Pre-Construction Permit Requirements

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

Conditions 10 and 11, Turbine BACT Emission Limits

Factual Basis: The BACT conditions (Conditions 10 and 11) apply because they were developed during PSD reviews of the stationary source by the EPA. These conditions require the Permittee to comply with the emission limits derived from BACT analysis. The Permittee may not cause or allow the affected equipment to violate these limits.

Between 1979 and 1981, EPA Region 10 issued four PSD permits for Prudhoe Bay stationary sources. On August 29, 1997 EPA issued revisions to the four PSD permits. The primary revisions include identification of specific equipment and tag numbers, apportionment of either field-wide or stationary source-wide ton per year limits to unit specific limits, and updating emission limits based solely on AP-42 factors to values in the edition of AP-42 that were current in 1997.

As part of the 1997 EPA revision process it was demonstrated to Region 10 that on a ton per year basis an overall decrease in allowable emissions would occur under the permit revision. The only exception was an increase in allowable SO₂ emissions due to subsequent permitting by the Department that raised the SO₂ BACT limit established by EPA in one of the four EPA permits issued (PSD IV).

The majority of these changes reflect the revised emission limits granted by EPA on August 29, 1997. The EPA revision established ton per year emission limitations on a group basis for turbines. For EU IDs 3 through 7, ton per year emission limits apply for NO_x, CO, and PM. EPA also established short-term BACT emission limits for EU IDs 3 through 7, which apply for NO_x, CO, and PM in other terms (*i.e.*, ppm, lb/MMscf, or lb/MMBtu). For EU IDs 8 and 9, ton per year emission limits apply for NO_x, SO₂, CO, and PM. NO_x and CO short-term BACT emission limits for EU IDs 8 and 9 were also established by EPA in other terms (*i.e.*, ppm, lb/MMscf, or lb/MMBtu). An opacity limit of 10 percent was also established for EU IDs 3 through 9. The EPA revisions have been incorporated into this Title V Operating Permit.

ADEC has three clarifying table notes for each of Table B and Table C. ADEC updated the original footnotes brought forward from text in the expiring operating permit. ADEC interprets these footnotes such that the short-term turbine NO_x emission limits only apply at full load, 15% O₂, and ISO conditions. The other short-term emission limits refer to full load. The updated table notes also reference the PSD permitting decision for the tabulated limits.

Further, based upon a PSD BACT correspondence from Ms. Bonnie Thie, EPA X, issued May 28, 1997, ADEC added a table note that the requirement to operate using good combustion practices applies at all times. Although this letter determined that BACT was based upon use of pipeline quality natural gas coupled with good operational practices, ADEC did not include Ms. Thie's pipeline quality natural gas determination in the table notes.

As the term "full load" could be subject to interpretation, the Department clarifies that full load is the maximum load achievable at the time of the periodic emission source test. This avoids potential "unenforceable" arguments that the gap-filled test results are not representative of full-load operations.

Monitoring, Recordkeeping, and Reporting Requirements for Conditions 10 and 11

Monitoring – For annual emission limits contained in Table B and Table C the Permittee shall use fuel consumption and/or hours of operation along with the emission factors contained in Section 12 to calculate monthly emissions and then use the monthly values to determine the 12-month period summation of emissions. Permittee may use the results of source testing to establish Section 12 emission factors. For EU IDs 3 through 7 the Permittee is required to calculate and report annual emission levels for comparison to the NO_x, CO, and PM annual BACT emission limits. For EU IDs 8 and 9 the Permittee is required to calculate and report annual emission levels for comparison to the NO_x, SO₂, CO, and PM annual BACT emission limits.

For demonstrating compliance with short-term BACT opacity limits in Table B and Table C, the Department adopted the MR&R scheme for gas-fired equipment subject to a BACT opacity limit of 10% (or less) as agreed to in ex-parte' discussion resulting from the BPXA Endicott (AQ0181TVP02 Rev.1) Director's Decision on BPXA's Informal Appeal. The Department re-established the original table notes to Table B and Table C brought forward from the original State permitting actions. The Department interprets these notes such that the short-term NO_x emission limits only apply at full load and ISO conditions, the other short-term emission limits refer to full load and standard conditions. In addition, based upon EPA's March 28, 1997 letter to Randy Poteet of Arco Alaska Inc., the Department also added a table note that the requirement to operate using good combustion practices applies at all times. Monitoring for compliance with the short-term BACT emission limit for turbine NO_x is identical to that for Subpart GG turbines, but covers two additional combustion turbines (EU IDs 6 and 7), not subject to the NSPS NO_x standard.

To demonstrate compliance with the short-term CO and PM BACT emissions limitations set by EPA for EU IDs 3 through 7 and for EPA CO BACT limitations for EU IDs 8 and 9, and to verify long-term emission factors in Section 12, the Permittee shall conduct periodic source testing no less than once every five years if turbine operations exceed 400 hours in preceding 12 month periods.

Recordkeeping – For annual standards, maintain records of monthly and annual emission levels and source test results according to Condition 30.5. For source tests, comply with the standard test recordkeeping set out in Section 6.

Reporting – Report compliance with annual emission limits for EU IDs 3 through 9. Notify the Department when annual emission limits are exceeded. Also, report according to Condition 30.6 and Section 6 for emission source test results.

Conditions 12 through 15, Permit-to-Operate Requirements Carried Forward

Factual Basis: There are four requirements that remain from Permit-to-Operate No. 9473-AA012 that have not been carried forward into, revised by, or rescinded by a more recent Title I permit than Permit-to-Operate No. 9473-AA012 (i.e., fuel consumption monitoring for all emission units that combust fuel, operating hours monitoring for all emission units (other than flares) that combust fuel, operating hours limit for EU IDs 1 and 2, and operating hours limit for EU IDs 15 through 17). These conditions must be carried forward to this Title V permit.

Conditions 12 through 15 are carried forward from Permit-to Operate No. 9473-AA012.

Condition 12 contains requirements to monitor fuel consumption for EU IDs 1 through 20 and 23 through 27.

Condition 13 contains requirements to monitor operating hours for EU IDs 1 through 17 and 23 through 27.

Condition 14 contains requirements to limit operating hours for EU IDs 1 and 2. The limit of 12,000 hours of operation per consecutive 12-month period that applies to EU IDs 1 and 2 was originally established through an amendment to Permit-to-Operate No. 8736-AA023 by letter from the Department dated February 28, 1994 as an owner-requested limit to avoid PSD permitting.

Condition 15 requires the Permittee to limit the number of hours of operation per consecutive 12-month period for the emergency equipment, EU IDs 15 through 17. As per Condition 15.3, the Permittee shall include in the operating report documentation of the reason the operating time limit was exceeded. If the Permittee wishes to assert that the cause was the result of an unavoidable emergency situation requiring operation of the engine to protect human health or safety, documentation of the event shall be provided in sufficient detail to allow ADEC to determine if such an assertion has merit. The exceedance of the operational hour-limit is not a violation if the Department determines that the exceedance is due to an emergency.

Conditions 17 and 18, Owner-Requested Limits Carried Forward from Permit AQ0269MSS01

Factual Basis: Conditions 17 and 18 are carried forward from Minor Permit No. AQ0269MSS01. The Permittee requested the limits in Conditions 17 and 18 on the sulfur content of fuel gas and liquid fuel burned by emission units EU IDs 1 through 20 at the stationary source. The Department granted these limits in Minor Permit No. AQ0269MSS01 dated November 21, 2005. The Permittee's request to establish these limits was accompanied by an air quality modeling analysis that demonstrated compliance with the ambient air quality standards and increments for SO₂ if the fuel sulfur content is kept below these limits. Permit AQ0269MSS01 requires monthly fuel gas H₂S and liquid fuel sulfur monitoring to assess compliance with the limits.

The previous fuel gas H₂S limit of 25 ppmv, annual average, for EU IDs 8 and 9 found in Condition 9 of Operating Permit No. AQ0269TVP01 has been rescinded and replaced by Condition 4 of Minor Permit No. AQ0269MSS01. These replacement limits are found in Condition 17 of this permit.

Condition 16, Owner Requested Limit

Legal Basis: This condition has been included in the permit effective in 2014 upon request from the Permittee.

Factual Basis: Although the provisions of 40 C.F.R. 63 Subpart ZZZZ allow affected emergency engines to operate up to 50 hours per calendar year for non-emergency situations other than maintenance and testing, the Permittee has requested to limit non-emergency operation of EU IDs 23 through 27 to maintenance and testing only, making the operating limit for these units more restrictive than the operations allowed under Subpart ZZZZ.

Condition 16 outlines the requested restriction and associated monitoring, recordkeeping, and reporting.

Condition 19, Owner Requested Limit

Legal Basis: This condition has been included in the permit upon request from the Permittee.

Factual Basis: Correspondence provided to BPXA from EPA dated August 11, 2005 specified EU ID 21 (tank tag no. 14-1962) is a “process tank” as defined under NSPS Subpart Kb at 40 C.F.R. 60.111b. “Storage vessels” under 40 C.F.R. 60.111b (as amended October 15, 2003) do not include “process tanks.” Therefore, EPA concluded the tank is not subject to NSPS Subpart Kb. However, the Permittee requests that the requirements of Subpart Kb be retained in the permit to establish an enforceable limit and, therefore, cap the potential emissions from the tank. This condition requires the Permittee to operate in accord with the closed vent system operating plan. The Department has attached this previously submitted operating plan to the permit.

Condition 20, 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, regardless of size.

Factual Basis: The condition re-iterates the emission standards and requires compliance for insignificant emission units not otherwise listed in the permit. The Permittee may not cause or allow their equipment to violate these standards. The Permittee identified insignificant emission units in the permit application which need not appear in the permit. All the insignificant emission units listed in the permit application are portable in nature and not always located at the stationary source. Included among the insignificant emission units are non-road engines, which do not have any applicable requirements under this permit. 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 20.4.a requires annual certification based on reasonable inquiry that the emission units did not exceed State emission standards during the previous year and did not emit any prohibited air pollution.

Conditions 21 through 28, NSPS Subpart A Requirements

Legal Basis: The Permittee must comply with the applicable New Source Performance Standard (NSPS) provisions incorporated by reference for specific industrial activities, as listed in 18 AAC 50.040⁵.

Most affected facilities subject to an NSPS are subject to Subpart A. At this stationary source, EU IDs 3 through 9 are subject to NSPS Subpart GG, and EU ID 22 is subject to NSPS Subpart Ka and, therefore, subject to Subpart A.

⁵ EPA has not delegated to the Department the authority to administer the NSPS program as of the issue date of this permit

Conditions 21.1 through 21.3 - The Permittee has already complied with the notification requirements in 40 C.F.R. 60.7 (a)(1) and (3) for EU IDs 3 through 9. However, the Permittee is subject to 40 C.F.R. 60.7(a)(1), (a)(3), and/or (a)(4) in the event of a new NSPS affected facility⁶ or in the event of a modification or reconstruction of an existing facility⁷ into an affected facility.

Condition 21.4 - The requirement to notify the EPA and the Department of any proposed replacement of components of an existing facility (40 C.F.R. 60.15) applies 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 22 - 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 23 and 24 - NSPS excess emission reporting requirements and summary report form in 40 C.F.R. 60.7(c) & (d) are applicable to EU IDs 3 through 9. 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. The Permittee obtained EPA approval for annual instead of semi-annual fuel sulfur reporting for gas-fired turbines in a letter from Jim McCormick (EPA Region 10) to Arco Alaska, Inc. dated Oct. 18, 1993. Therefore, the EEMSP reports that address fuel gas H₂S monitoring for Subpart GG-affected turbines are required to be submitted at least annually for these units instead of semi-annually.

Condition 25 - The Permittee has already complied with the initial performance test requirements in 40 C.F.R. 60.8 for EU IDs 3, 4, 5, 8, and 9. Therefore, the Permittee is not required to comply with 40 C.F.R. 60.8(b) through (e) for EU IDs 3, 4, 5, 8, and 9. 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 the EPA.

Condition 26 - Good air pollution control practices in 40 C.F.R. 60.11 are applicable to all NSPS affected facilities subject to Subpart A (EU IDs 3 through 9, and 22).

Condition 27 - States that any credible evidence may be used to demonstrate compliance or establishing violations of relevant NSPS standards for EU IDs 3 through 9, and 22. Although this condition imposes no currently applicable requirement or emission limit, it is included in the permit to ensure that the stationary source is not inadvertently shielded from this requirement and is aware of the requirement.

Condition 28 - Concealment of emissions prohibitions in 40 C.F. R. 60.12 are applicable to EU IDs 3 through 9 and 22.

The flares are not subject to 40 C.F. R. 60.18 because they are not safety devices and are not control devices. The flares do not receive any tank vapors from any NSPS regulated emission units.

⁶ *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.

⁷ *Existing facility* means, with reference to a stationary source, any apparatus of the type for which a New Source Performance Standard (NSPS) is promulgated, 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.

Recordkeeping requirements in 40 C.F.R. 60.7(f) are applicable to all NSPS affected facilities. (Satisfied by Condition 63).

Factual Basis: General provisions of 40 C.F.R. 60, Subpart A apply to owners or operators who are subject to a relevant subpart under Part 60, except when otherwise specified in an applicable subpart or relevant standard. The intent of Subpart A is to eliminate the repetition of requirements applicable to all owners or operators affected by NSPS.

Condition 29, NSPS Subpart Ka Requirements

Legal Basis: NSPS Subpart Ka applies to storage vessels for petroleum liquids with storage capacity > 40,000 gallons that were built or modified after May 18, 1978 and prior to July 23, 1984. EU ID 22 was constructed during this time frame. This affected facility has a storage capacity of greater than 40,000 gallons and stores petroleum liquids.

Factual Basis: Condition 29 requires the Permittee to operate and maintain EU ID 22 and the closed vent vapor recovery system (installed according to the specifications of 40 C.F.R. 60.112a(a)(3)) in accordance with the Operations and Maintenance Plan on file with the EPA.

Conditions 30 through 31, NSPS Subpart GG Requirements

Legal Basis: These conditions prohibit 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. EU IDs 3 through 9 are subject to NSPS Subpart GG. EU IDs 6 and 7 are exempt from the NSPS Subpart GG NO_x standard (see below).

Factual Basis: These conditions incorporate NSPS Subpart GG NO_x emission and sulfur compound limits. The Permittee may not allow equipment to violate these standards.

NO_x Standard: For a turbine subject to 40 C.F.R. 60.332, the NO_x standard is determined by the following equation:

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

Where:

STD_{NO_x} = allowable NO_x 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_x emissions allowance for fuel bound nitrogen, percent by volume.

Based on the manufacturer's heat rating at manufacturer's rated peak load, and assuming fuel bound nitrogen of zero, the NO_x standard is 173 ppmvd for EU IDs 3 and 4, 216 ppmvd for EU ID 5 and 154 ppmvd for EU IDs 8 and 9. EU IDs 6 and 7 are exempt from 40 C.F.R. 60.332 Subpart GG NO_x requirements because they satisfy the exemption listed in 40 C.F.R. 60.332(e).

SO₂ Standard: The Permittee is required to comply with the following sulfur requirements for EU IDs 3 through 9 (turbines):

- (1) do not cause or allow SO₂ emission in excess of 0.015 percent by volume, at 15 percent O₂ and on a dry basis (150 ppmv), or
- (2) do not cause or allow the sulfur content for the fuel burned to exceed 0.8 percent by weight.

The Permittee has elected to comply with the SO₂ standard by not exceeding the 0.8 percent by weight sulfur content in the fuel burned by the affected emission units (EU IDs 3 through 9).

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

Conditions 30.4 through 30.6, NO_x Monitoring, Recordkeeping, and Reporting

Legal Basis: Periodic monitoring, recordkeeping, and reporting (MR&R) are included in Conditions 30.4 through 30.6 for *all* turbines that normally operate for greater than 400 hours in a 12 month period, including turbines not subject to NSPS Subpart GG emission standards. This additional monitoring is necessary to ensure that turbine emissions comply with the applicable BACT, ORL, and NSPS NO_x standards 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 BACT, ORL, or Subpart GG NO_x emission limit will inherently comply with the BACT, ORL, and Subpart GG limits at all times and will never need additional testing. After a sufficient body of NO_x data is gathered under monitoring conditions for compliance with BACT, ORL, and 40 C.F.R. 60, Subpart GG limits, the Department may find that it has enough information to make such categorical determinations. In that event, the Department would revise the NO_x monitoring conditions. The Department may determine that to assure compliance it is necessary to retain or increase the current monitoring frequency. Fuel-bound nitrogen monitoring is clarified in the latest version of NSPS Subpart GG to be required only when the fuel-bound nitrogen content has been used as a basis for relaxing the NO_x emission standard of the subpart per 40 C.F.R. 60.332(a)(3) & (4) and §60.334(h)(2). Therefore, fuel-bound nitrogen monitoring is not required even without an EPA waiver.

These conditions do not include the initial NSPS performance test requirements as the Subpart A conditions cover these requirements. An existing or new turbine under this permit that 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_x emissions at less than or equal to 90 percent of each of the limits shown in Conditions 10, 11, and/or 30, then periodic monitoring is required within a year of the effective date of the permit if a turbine normally operates more than 400 hours within a 12 month period, or within a year of exceeding 400 hours of operation within a 12-month period (testing trigger event) any time it has been more than 4 years since the latest performance test was completed. For clarification, the Department added a 6 month cut-off date for triggering source testing within 1 year after the permit effective date in accordance with Condition 30.4.a(i)(A). The 6-month trigger is used to assess if a turbine typically operates more than 400 hours in a 12-month period and should, therefore, be subject to the requirement of completing a testing within 1 year of the permit effective date if it has been greater than 4 years since the last test was completed.

If the most recent performance test showed operations at greater than 90 percent of any of the emission limits listed in Conditions 10, 11, and/or 30, 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 turbine⁸” 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.

In Condition 30.4.b(ii)(C)(4), the Department considers “fuel type” to mean, for liquid fuels a type of fuel as described in an ASTM or similar fuel specification.

⁸ *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).

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_x 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.

Conditions 31.1 through 31.4, SO₂ Monitoring, Recordkeeping, and Reporting

Legal Basis: These conditions require the Permittee to comply with NSPS Subpart GG SO₂ or fuel quality monitoring, recordkeeping, and reporting.

Factual Basis: Monitoring, recordkeeping, and reporting requirements for these conditions 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 SO₂ standard.

Monitoring: Condition 31.1 incorporates NSPS Subpart GG fuel sulfur monitoring requirements and the fuel gas monitoring requirements of the EPA approved alternative monitoring plan and schedule granted to the Permittee in accordance with 40 C.F.R. 60.334(i)(3). The approved alternative plans and schedules apply to EU IDs 3 through 5 since they commenced construction, reconstruction, or modification after October 3, 1977, but before July 8, 2004, per 40 C.F.R. 60.334(h)(4).

Per Conditions 31.1.b and 31.4.a(ii) and pursuant to 40 C.F.R. 60.334(h)(3) and §60.334(i), the owner or operator may elect not to monitor the total sulfur content of the gaseous fuel combusted in the turbine for purposes of demonstrating compliance with Subpart GG 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. However, for purposes of demonstrating compliance with the owner-requested ambient air quality protection limits pertaining to the gaseous fuel H₂S content limit found in Condition 17, monthly monitoring of the gaseous fuel H₂S content must be maintained regardless of any demonstration that the fuel meets the definition of natural gas under Subpart GG.

Per Condition 31.1.c, an affected facility for which a custom fuel monitoring schedule has previously been approved, the owner or operator may, without submitting a special petition to the Administrator, continue monitoring on this schedule. The Permittee was granted an EPA-approved Custom Fuel Monitoring Schedule (7/13/93 with additional correspondence on 8/20/93, 10/18/93, and 8/19/96) and Alternate H₂S Sampling Method (10/2/97) allowing the Permittee to determine the sulfur content of the fuel gas at least monthly using ASTM D 4810-88, ASTM D 4913-89, Gas Producer's Association (GPA) Method 2377-86. The custom schedule also allows the Permittee to reduce the required frequency for reporting the fuel sulfur content to once per year, instead of the standard semi-annual requirement. 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.

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 40.C.F.R. 71.6(a)(3)(ii)(B). This requirement is stated in Condition 63.

Reporting: NSPS Subpart GG fuel sulfur standard reporting requirements are incorporated in the permit in Condition 31.4. Flow Station #3 has an annual schedule for reporting fuel sulfur as per a custom fuel monitoring schedule (EPA Letter: 10/18/93).

For the purpose of the EEMSP reports and summary report required under 40 C.F.R. 60.7(c) and (d) and stated in Conditions 23 and 24, the Permittee is required to report as excess emissions any periods during which the sulfur content of the fuel being fired in the turbine exceeds 0.8 percent.

Subpart GG[40 C.F.R. 60.334(j)(5)] requires EEMSP reporting 30 days after the end of each 6-month period, but the alternative monitoring schedule approved for the stationary source reduced the required frequency of these reports to at least annually. As stated in Conditions 23 and 24, reports are to be submitted to the Department and EPA, and summarized in the operating report required under Condition 68.

In Condition 31.4.b, the Department requires that a copy of the results from the monitoring requirements in Condition 31.1 be included in the operating report required under Condition 68. State excess emissions and permit deviation reports are to be submitted in accordance with Condition 31.4.c.

Condition 33, NESHAP Subpart A Requirements

Legal Basis: The Department has incorporated by reference the NESHAP requirements for specific industrial activities, as listed in 18 AAC 50.040(c). EU IDs 15 through 17 and 23 through 27 are subject to NESHAP Part 63, Subpart ZZZZ and therefore are subject to the provisions of Subpart A listed in Table 8 of Subpart ZZZZ.

Most affected facilities subject to a NESHAP requirement are subject to Subpart A. The Permittee shall comply with the applicable requirements of 40 C.F.R 63 Subpart A as specified in the provisions for applicability of Subpart A in 40 C.F.R. 63, Subpart ZZZZ Table 8.

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

Conditions 32, and 34 through 36 NESHAP Subpart ZZZZ Requirements

Legal Basis: The provisions of 40 C.F.R. 63, Subpart ZZZZ apply to owners or operators of a stationary Reciprocating Internal Combustion Engine (RICE) at a major or area source of HAP emissions, except if the stationary RICE is being tested at a stationary RICE test cell/stand. This stationary source is an area source of HAP emissions accessible by the Federal Aid Highway System (FAHS) subject to the provisions of NESHAP Subpart ZZZZ under 40 C.F.R. 63.6590(a)(1)(iii) for existing RICE (EU IDs 15 through 17 and 23 through 27) whose construction commenced before June 12, 2006.

Factual Basis: Pursuant to 40 C.F.R. 63.6585, diesel-fired emergency generators EU IDs 15, 16, and 23 through 27 and diesel-fired non-emergency fire water pump EU ID 17⁹ are affected stationary RICEs subject to NESHAP Subpart ZZZZ. EU IDs 15, 16, and 23 through 27 are emergency RICEs and EU ID 17 is a non-emergency RICE with a rating that does not exceed 300 Hp and therefore these engines are not subject to any numerical emission limitations under Subpart ZZZZ.

For EU IDs 15 through 17 and 23 through 27, the Permittee must comply with 40 C.F.R. 63, Subpart ZZZZ no later than May 3, 2013.

Per 40 C.F.R. 63.6645(a)(5), initial notification is not required for existing stationary emergency CI RICEs or existing stationary CI RICEs that are not subject to any numerical emission standards.

In accordance with 40 C.F.R. 63.6603(a), EU IDs 15 through 17 and 23 through 27, must comply with the management practices in Table 2d of 40 C.F.R. 63 for emergency CI engines or non-emergency (≤ 300 Hp) CI engines, as applicable.

The Permittee must comply with the good air control practices of 40 C.F.R. 63.6625(e).

The Permittee must comply with the operational limitations for emergency generators for EU IDs 15, 16, and 23 through 27 under 40 C.F.R. 63.6640(f). (Note: EU IDs 23 through 27 are also subject to more restrictive operating limits than those required by Subpart ZZZZ as requested by the Permittee and included in this permit as Condition 16.)

For EU IDs 15, 16, and 23 through 27, the Permittee must comply with the installation and maintenance requirements of 40 C.F.R. 63.6625(e) and (f), including the requirement to install a non-resettable hour meter, if one is not already installed. For EU ID 17, the Permittee must comply with the maintenance requirements of 40 C.F.R. 63.6625(e).

For EU IDs 15, 16, and 23 through 27, the Permittee must comply with the recordkeeping requirements of 40 C.F.R. 63.6655(e) and (f) and 40 C.F.R. 63.6660. For EU ID 17, the Permittee must comply with the recordkeeping requirements of 40 C.F.R. 63.6655(e) and 40 C.F.R. 63.6660.

The ULSD fuel requirements found in 40 CFR 63.6604 are not applicable to EU ID 17. EU ID 17 is rated at 255 hp. The ULSD fuel use requirements under 40 CFR 63.6604 for existing non-emergency, non-black start engines apply to RICE with a site rating of more than 300 hp.

The Permittee must report any deviations from the operating limitations in Conditions 34 through 36.

⁹ EU ID 17 has been classified as non-emergency RICE for purposes of Subpart ZZZZ applicability determination per BPXA letter of August 2, 2012.

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 (b)(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 and engages in the recycling or disposal of certain refrigerants.

The prohibitions in Conditions 38.2 and 38.3 apply to all stationary sources that use halon for extinguishing fires and as an inert gas to reduce explosion risk. The condition prohibits the Permittee from causing or allowing violations of these prohibitions. Flow Station #3 uses halon and is, therefore, subject to the Federal regulations contained in 40 C.F.R. 82 Subparts G and H.

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

Condition 39, NESHAPs Applicability Determinations

Legal Basis: The Permittee must determine if specific federal regulations apply to its stationary source.

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 comply with any NESHAP standard that becomes applicable to the stationary source by the compliance date established by the Administrator in the applicable subpart.

Conditions 40 through 42, 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 43, 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 44 through 45, 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). 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 permit 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 assessable emissions are potential or projected emissions of each air pollutant authorized by the permit (AS 46.14.250(h)(1)).

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 emissions based on actual emissions use the most recent previous calendar year's emissions. Since each current year's assessable emissions 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.

Condition 46, 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 3 through 9, 15 through 17, and 22 through 27.

Factual Basis: The Department adopted this condition under 18 AAC 50.346(b) as Standard Permit Condition VI pursuant to AS 46.14.010(e). The Department determined that this standard permit 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 permit condition as modified meets the requirements of 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 47, 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 48, 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 may engage in bulk material handling, transporting, or storing; or may 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. Since the stationary source is not a significant source of fugitive PM emissions, there is no need for enhanced monitoring or recordkeeping.

Condition 49, 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 a stack at a stationary source 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 50, 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 emission limitations 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 permit condition into 18 AAC 50.346(a) pursuant to AS 46.14.010(e). The Department determined that this 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.

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 a summary of the investigation and corrective actions undertaken for these complaints. The Permittee is also required to submit copies of these records upon request of the Department.

Condition 51, 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 67. Excess emission reporting under Condition 67 requires information on the steps taken to minimize emissions. Monitoring of compliance for this condition consists of the report required under Condition 67.

Condition 52, 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 52.1 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 69.

Condition 53, 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 effective November 30, 2001, as updated effective November 9, 2008.

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 54 through 56, 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 by this permit to conduct source tests. The Permittee is required to conduct source tests in the manner set out in Conditions 54 through 56.

Factual Basis: These conditions supplement the specific monitoring requirements stated elsewhere in this permit. Compliance monitoring with Conditions 54 through 56 consists of the test reports required by Condition 61.

Condition 57, Test Exemption

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

Factual Basis: As provided in 18 AAC 50.345(a), 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 58 through 61, 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 by this permit to conduct source tests.

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 these conditions.

Condition 62, Particulate Matter (PM) Calculations

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

Factual Basis: This condition supplements specific monitoring requirements stated elsewhere in this permit.

Condition 63, 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 64, 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 the Federally approved State operating permit program effective November 30, 2001, as updated effective November 9, 2008.

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 operating report, although excess emission reports must be submitted more frequently than the operating report. This condition supplements the reporting requirements of this permit.

Condition 65, Submittals

Legal Basis: This condition requires the Permittee to comply with the 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 66, Information Requests

Legal Basis: This is a standard condition from 18 AAC 50.345(i) under the Federally-approved State operating permit program effective November 30, 2001, as updated effective November 9, 2008.

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

Condition 67, 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 – through 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 permit 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 that unit-specific or stationary-source-specific conditions would better meet the requirements. Therefore, the Department concludes that the standard permit condition meets the requirements of 40 C.F.R. 71.6(a)(3).

Section 13, Notification Form

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

There have been some historical misunderstandings regarding permit deviations and excess emissions. Not all permit deviations are excess emissions, but all excess emissions of limits set out in the permit are also permit deviations. Example permit deviations that are not also defined as excess emissions include, but are not limited to, a failure to report required information, incorrect or incomplete reported information, submittal of a report after the required deadline, failure to conduct monitoring prior to the required deadline, failure to maintain required records, etc.

Condition 68, 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 Standard Permit Condition VII as revised on September 27, 2010. For reporting, MR&R conditions are Standard Permit Condition VII adopted into regulation pursuant to AS 46.14.010(e). The Department has made a modification to Standard Permit Condition VII as incorporated into this permit by allowing quarterly reporting as requested by the Permittee instead of the standard semi-annual operating reports and a change on the due date for submittal from 30 days to 45 days following the last day of the reporting period. These changes satisfy the requirement for a “stationary source specific” change to the Standard Permit Condition. The Department has determined that the condition included in this permit meets the requirements of 40 C.F.R. 71.6(a)(3).

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 for each of the effective permits during the reporting period. 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 69, 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 69.2 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. Electronic submission meets the requirements of 18 AAC 50 and allows for more efficient distribution of the certification report to staff in other locations.

Condition 70, NSPS and NESHAP Reports

Legal Basis: The Permittee is required to provide the Federal Administrator and Department with 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.

Condition 71, Emission Inventory Reporting

Legal Basis: This condition requires the Permittee to submit emissions data to the State to satisfy the Federal requirement that applies to the State to submit emission inventory data from point sources as required under 40 C.F.R. 51.321 (6/10/02). The requirement 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 Department has incorporated Standard Permit Conditions XV and XVI as adopted by regulation on September 27, 2010. The Department adopted these conditions under 18 AAC 50.346(b) pursuant to AS 46.14.010(e). The emission inventory data is due to EPA 12 months after the end of the reporting year (40 C.F.R 51.30(a)(1) and (b)(1), 12/17/08). A due date of March 31 follows shortly after sources report 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 C.F.R. 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.

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 C.F.R. 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 C.F.R. 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 as allowed under 40 C.F.R. 71.10(d)(1).

Conditions 73 through 75, Permit Changes and Revisions Requirements

Legal Basis: The Permittee is obligated to notify the Department and EPA of certain off-permit source changes and operational changes under 18 AAC 50.326(j)(4). 40 C.F.R. 71.6(a)(8), (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); therefore, language addressing these provisions has not been included in this permit as part of Condition 73.

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 accordance 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 consists of the application submittal.

Conditions 77 through 81, General Compliance Requirements and Schedule

Legal Basis: These conditions ensure compliance with the applicable requirement in 18 AAC 50.326(j)(3) and 40 C.F.R. 71.6(c). The Permittee is required to comply with these standard permit conditions set out in 18 AAC 50.345 and 40 C.F.R. 71.6(c) 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 general compliance conditions are required for all operating permits.

Conditions 82 through 83, Permit Shield

Legal Basis: These conditions ensure compliance with the applicable requirements in 18 AAC 50.326(j) and apply because the Permittee has requested that the Department shield the source from the non-applicable requirements listed under these conditions under the Federally approved State operating permit program effective November 30, 2001, as updated effective November 9, 2008.

Factual Basis: Table D of Operating Permit No. AQ0269TVP02 shows the permit shields that the Department granted to the Permittee. The Department based the determinations on the permit application, past operating permit, Title I permits and inspection reports. Should any of the shielded requirements become applicable during the permit term, the Permittee is required to take necessary steps to comply with all applicable requirements in a timely manner.

Table K - Permit Shields Denied

Permit Shield Requested	Reason for Shield Request	Reason for Shield Denial
18 AAC 50.201 – Ambient Air Quality Investigation	This requirement is not applicable until such time as the Department requests an ambient air quality investigation.	There is no rationale to shield the Permittee from a requirement that the Department may request at any time.

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*): SO₂ NO_x TRS H₂S 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 emission unit operating time in reporting period¹: _____

Emission Data Summary ¹	CMS (CEMS and PEMS) Performance Summary ¹
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 _____	1. CMS downtime in reporting period 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 duration of excess emission _____	2. Total CMS Downtime _____
3. Total duration of excess emissions x (100) / [Total emission unit operating time] _____ % ²	3. [Total CMS Downtime] x (100) / [Total emissions unit operating time] _____ % ²

¹ For opacity, record all times in minutes. For gases, record all times in hours.

² 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: _____