Alaska Department of Environmental Conservation
Air Permits Program

Alyeska Pipeline Service Company (APSC)
Trans Alaska Pipeline System (TAPS) Pump Station 5 (PS-5)

STATEMENT OF BASIS
of the terms and conditions for
Permit No. AQ0098TVP02

Public Comment Draft - September 23, 2009

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INTRODUCTION

This document sets forth the statement of basis for the terms and conditions of Operating Permit No. AQ0098TVP02.

STATIONARY SOURCE IDENTIFICATION

Section 1 of Operating Permit No. AQ0098TVP02 contains information on the stationary source, as provided in the Title V permit application.

The stationary source (i.e., the Trans Alaska Pipeline System (TAPS) Pump Station 5 (PS-5)) is operated by Alyeska Pipeline Service Company (APSC), and Alyeska Pipeline Service Company (APSC) is the Permittee for the stationary source's operating permit. The SIC code for this stationary source and alternative operating scenario is 4612 -- Crude Oil Pipelines.

Pump Station 5 is a crude oil pumping facility and relief station for crude oil when it must be diverted to the breakout tank as a part of pipeline operations.

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 PS-5 that have specific monitoring, recordkeeping, and reporting requirements are listed in Table A of Operating Permit No. AQ0098TVP02, including six gas turbine drivers for pumps and generators; five diesel internal combustion engine driver; two heaters; four boilers; an incinerator; an air handling unit, and a crude breakout tank.

Table A of Operating Permit No. AQ0098TVP02 also contains specific information on each of the emission units that are regulated by this permit and provided in the application. The table is provided for informational and identification purposes only. Specifically, the emission unit rating/size provided in the table is not intended to create an enforceable limit.

EMISSIONS

A summary of the potential to emit (PTE)[1] and assessable PTE is shown in Table C below.

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

Pollutant	NOx	CO	PM-10	SO_2	VOC	HAPs	Total
PTE – Existing Operations	191.4	139.3	14.6	123.4	418.3	22.5	887.0

[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 7/25/08.

Pollutant	NOx	CO	PM-10	SO_2	VOC	HAPs	Total
Assessable PTE – Existing Operations	191.4	139.3	14.6	123.4	418.3	22.5	887.0
PTE – Strategic Reconfiguration	116.9	74.5	8.9	45.4	414.0	22.5	659.7
Assessable PTE – Strategic Reconfiguration	116.9	74.5	0	45.4	414.0	22.5	650.8

The assessable PTE listed under Condition 45.1 is the sum of the emissions of each individual regulated air pollutant for which the stationary source has the potential to emit quantities greater than 10 tons per year (TPY). The emissions listed in the table 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 existing operations, emissions were calculated by the Permittee during processing of Permit No. AQ0098TVP01 based on manufacturer's data, EPA's AP-42 factors, and mass balance calculations using 0.24 percent sulfur by weight (the 0.24 percent was not an enforceable limit, but it was a conservative value for estimating emissions). For HAP emissions, the Department obtained the values from Construction Permit No. 098CP01. VOC emissions for the crude oil breakout tank (EU ID 20) were added to the stationary source total VOC emissions as provided by the Permittee in the renewal application using TANKS program.

For strategic reconfiguration, the Permittee provided emission estimates in the renewal application based on manufacturer's data, EPA's AP-42 factors, TANKS program, and mass balance calculations using 0.15 percent sulfur by weight (the Permittee used 0.21 percent on some units although limited to 0.15 percent, so the SO_2 emissions are conservatively estimated).

HAP estimates were not included in the totals in the table above because most HAPs are VOCs. The stationary source is not a major source of HAPs. The highest individual HAP is 9.0 TPY and cumulative HAPs are 22.5 TPY, as limited by Construction Permit No. 098CP01.

BASIS FOR REQUIRING AN OPERATING PERMIT

In accordance with AS 46.14.130(b), an owner or operator of a Title V source[2] must obtain a Title V permit consistent with 40 C.F.R. Part 71, as adopted by reference in 18 AAC 50.040.

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

- A major source;
- A stationary source subject to federal new source performance standards or national emission standards; and
- Another stationary source designated by the federal administrator by regulation.

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

This stationary source is further classified under 18 AAC 50.326(a) and 40 C.F.R. 71.3(a) as:

- Belonging to a single major industrial grouping as defined in Section 302 of the Act, that directly emits or has the potential to emit 100 TPY or more of any air pollutant; and
- Containing a source, including an area source, subject to a standard or other requirement under Section 111 of the Act (New Source Performance Standards, NSPS), and not exempted or deferred under AS 46.14.120(e) or (f).

CURRENT AIR QUALITY PERMITS

Previous Air Quality Permit to Operate

No air quality control permit-to-operate exists for this stationary source prior to January 18, 1997 (the effective date of the new divided operating and construction-permitting program).

Title I (Construction and Minor) Permits

Construction Permit No. 098CP01 was issued to the Permittee on March 9, 2005. This permit implemented owner requested emission limits to cap emissions and classify PS-5 as HAP synthetic minor. All stationary source-specific requirements established in this previous permit are included in the Title V operating permit as described in Table D.

Construction Permit No. 098CP02 was issued to the Permittee on September 13, 2004. This permit authorized the installation of five reciprocating internal combustion engine at PS-5 as part of the Strategic Reconfiguration Project. All effective stationary source-specific requirements established in this Title I permit are included in the Title V operating permit as described in Table E.

Construction Permit No. AQ0098MSS01 was issued to the Permittee on August 18, 2006. This permit authorized the installation of three heaters at PS-5 (one of which is insignificant) as part of the Strategic Reconfiguration Project. All effective stationary source-specific requirements established in this Title I permit are included in the Title V operating permit as described in Table F.

Title V Operating Permit Application, Revisions, and Renewal History

The Permittee submitted an application for a Title V operating permit on October 31, 1997 and supplements to the application on December 5, 1997 and March 23, 1999. The Department issued Title V Operating Permit No. AQ0098TVP01 on January 28, 2003.

The Permittee submitted an application for a renewal to the Title V operating permit on August 27, 2007. The Department determined the application was complete on September 21, 2007. The Permittee submitted an application for a renewal to the Title V operating permit on June 21, 2007. The Department determined the application was complete on August 20, 2007. The Permittee submitted an amendment to the Title V operating permit renewal application on August 13, 2008, October 30, 2008 and April 1, 2009. In the first amendment, the Permittee requested permit hygiene and the removal of the turbine relocation monitoring, recordkeeping, and reporting terms contained in PS-1, 2, 4, 5, 7, and 12 operating permits. For PS-5, the Department retained these terms because the turbine units being used as replacements for EU IDs 2 and 3 are the Solar Turbine engines, and not the Avon Gas components. Two of these replacement Solar turbines has been identified as NSPS Subpart GG units. To ensure that future

turbine engine changes do not result in a "modification" or a "reconstruction" as defined under 40 C.F.R. 60, the Permittee is required to keep maintenance records and to report under Condition 73 the relocation and replacement of the Solar gas turbines. The purpose of the second amendment was to withdraw the Permittee's previous applicability determination on 40 C.F.R. 63 Subpart CCCCCC to the stationary source and also to request for permit shield from the requirements of the subpart. The Department concurred with the Permittee's assessment and, therefore, granted the permit shield request in this renewal permit. Upon request of the Department, the Permittee provided relevant additional information by e-mail on February 6 and 25, 2009. On April 1, 2009, APSC provided a third application amendment to withdraw the Permittee's previous applicability determination on 40 C.F.R. 63 Subpart HHHHHH to the stationary source and also to request for a permit shield from the requirements of the subpart. The Department concurred with the Permittee's assessment regarding inapplicability of 40 C.F.R. 63 Subpart HHHHHH. However, the Department did not grant the shield requested for 40 C.F.R. 63 Subpart HHHHHH because there is no prohibition for the stationary source from using MeCl for paint stripping during the life of this permit.

COMPLIANCE HISTORY

The stationary source has operated at its current location since 1977. PS-5 is classified as Prevention of Significant Deterioration (PSD) major because it emits or has the potential to emit 250 TPY or more of a regulated air pollutant. Although the stationary source as a whole is designated as major under PSD, a PSD permit has not been required because the source commenced construction prior to August 7, 1977 (the effective date of the PSD regulations) and has not been modified to a level above PSD emission thresholds since.

Review of the permit files, which includes the operating reports and full compliance evaluations, indicate the stationary source is generally operating in compliance with the operating permit. The files did show that the Permittee had been issued Compliance Letter No. 06-0478-37-5611 on July 7, 2006 and Compliance Letter No. 06-0756-37-5831 on September 14, 2006 for some procedural violations associated with monitoring and reporting.

STATIONARY SOURCE-SPECIFIC REQUIREMENTS CARRIED FORWARD

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.

Alaska's State Implementation Plan included the following types of pre-construction permits:

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

Pre-construction permit terms and conditions include both source-specific conditions and conditions derived from regulatory applicable requirements such as standard conditions, generally applicable conditions and conditions that quote or paraphrase requirements in regulation. These requirements include, but are not limited to, each source-specific requirement

established in these permits issued under 18 AAC 50 that are still in effect at the time of this operating permit issuance.

Table D, Table E, and Table F list the requirements carried over from Permit No. 098CP01, Permit No. 098CP02, and Permit No. AQ0098MSS01 into Operating Permit No. AQ0098TVP02.

Table D – Comparison of Permit No. 098CP01 Conditions to Operating Permit No. AQ0098TVP02 Conditions[3]

Permit No. 098CP01 Condition No.	Description of Requirement	Permit No. AQ0098TVP02 Condition No.	How Condition was Revised
1	Limits to Avoid HAP-Major Classification at PS-5	14	Not Revised
2	Monitoring for HAP-Major Avoidance	14.1	Did not carry forward Conditions 2.2, 2.3, 2.5a, and 2.6a where the Permittee is allowed to "use equivalent methods approved by the Department". This text was discarded during the Revised Action Plan submitted to EPA on July 15, 2007, as a result of the EPA Audit of the September 2006 Title V Program Review and is not to be used in subsequent permits since it allows a Permittee to bypass the public process for changing monitoring requirements by submitting off-record requests to change monitoring methods.
3	Reporting for HAP-Major Avoidance	14.2	Not Revised

Table E – Comparison of Permit No. 098CP02 Conditions to Operating Permit No. AQ0098TVP02 Conditions[4]

Permit No. 098CP02 Condition No.	Description of Requirement	Permit No. AQ0098TVP02 Condition No.	How Condition was Revised
1 - 3	Authorization to Install EU IDs 12 – 16 for the Strategic Reconfiguration	16	Condition modified by Permit No. AQ0098MSS01 for installation of three new boilers.

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

Permit No. 098CP02 Condition No.	Description of Requirement	Permit No. AQ0098TVP02 Condition No.	How Condition was Revised
4	Temporary Dual Operation	17	Condition modified by Permit No. AQ0098MSS01 for installation and operational limits for three new boilers.
5	Owner Requested Limits to Avoid Classification as PSD Major Modification	18	Condition modified by Permit No. AQ0098MSS01 for installation and operational limits for three new boilers.
6	Performance Testing	19	Condition modified by Permit No. AQ0098MSS01.
7	Source Testing	N/A	Condition rescinded by Permit No. AQ0098MSS01
8	Fuel Sulfur Limit	20	Condition modified by Permit No. AQ0098MSS01.

Table F – Comparison of Permit No. AQ0098MSS01 Conditions to Operating Permit No. AQ0098TVP02 Conditions[5]

Permit No. AQ0098MSS01 Condition No.	Description of Requirement	Permit No. AQ0098TVP02 Condition No.	How Condition was Revised
4	Authorization to Install EU IDs 12 – 16 and 17 - 19 for the Strategic Reconfiguration	16	Carried forward as modified in Permit No. AQ0098MSS01 for installation of three new boilers.
5	Temporary Dual Operation	17	Carried forward as modified in Permit No. AQ0098MSS01 for installation and operational limits for three new boilers.
6	Owner Requested Limits to Avoid Classification as PSD Major Modification	18	Carried forward as modified in Permit No. AQ0098MSS01 for installation and operational limits for three new boilers.
7 - 8	Performance Testing	19	Carried forward as modified in Permit No. AQ0098MSS01.
9	Source Testing	N/A	Condition rescinded by Permit No. AQ0098MSS01 – source test was performed on 12/8/04.
10	Fuel Sulfur Limit	20	Carried forward as modified in Permit No. AQ0098MSS01 from 0.21 percent to 0.15 percent. Streamlined sulfur

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

Permit No. AQ0098MSS01 Condition No.	Description of Requirement	Permit No. AQ0098TVP02 Condition No.	How Condition was Revised
			content monitoring requirement based on the more stringent ORL sulfur content limit of 0.15 percent. Changed the text "or another method approved by the Department" in Condition 8.1b to "or an appropriate method listed in 18 AAC 50.035(b)-(c) and 40 C.F.R. 60.17 incorporated by reference in 18 AAC 50.040(a)(1)". The text "or another method approved by the Department" was discarded during the Revised Action Plan submitted to EPA on July 15, 2007, as a result of the EPA Audit of the September 2006 Title V Program Review and is not to be used in subsequent permits since it allows a Permittee to bypass the public process for changing monitoring requirements by submitting off-record requests to change monitoring methods.
15	Stack Modifications	21	No Revision

STATEMENT OF BASIS FOR THE PERMIT CONDITIONS

The State and federal regulations for each condition are cited in Operating Permit No. AQ0098TVP02. The 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 - 5, Visible Emissions Standard and MR&R

Legal Basis: These conditions ensure compliance with the applicable requirements in 18 AAC 50.050(a) and 18 AAC 50.055(a). 18 AAC 50.055(a) applies to the operation of fuel-burning equipment and industrial processes. EU IDs 1 – 10 and 12 – 19 are fuel burning equipment or industrial processes. 18 AAC 50.050(a) applies to the operation of incinerators. EU ID 11 is an incinerator.

U.S. EPA incorporated these standards as revised in 2002 into the State Implementation Plan (SIP) effective September 13, 2007.

Factual Basis: Condition 1 prohibits the Permittee from causing or allowing visible emissions in excess of 18 AAC 50.055(a)(1). Condition 2 prohibits the Permittee from causing or allowing visible emissions in excess of 18 AAC 50.050(a). Condition 2 applies federal and State visible emissions standards to each solid waste incinerator. The Permittee shall not cause or allow the equipment to violate these standards.

Conditions 3 - 5 MR&R have been adopted into regulation as standard conditions (Standard Condition IX) pursuant to AS 46.14.010(e). The Department added a provision that clarifies the option to continue an established monitoring frequency for renewal permits.

No initial or periodic visible emissions monitoring is required for any unit that is classified as insignificant under 18 AAC 50.326(e). For these units, the Permittee shall meet the requirements under Condition 22.

As requested by the Permittee, the following changes were made to the permit during this review:

1) Language was added to Condition 3.1d for units that do not operate on a consistent basis to indicate that the annual Method 9 observations must be taken between 10 and 13 months after the previous observations or during the next month that the unit operates, whichever is later. Also, Condition 3.1d was revised to indicate that for units that operate intermittently, the Permittee is required to perform 18-minute observations annually and Conditions 3.1a - 3.1c do not apply.

2) Condition 4.1a(ii) was revised to add "if known" as follows: the time, estimated distance to the emissions location, approximate wind direction, estimated wind speed, description of the sky condition (presence and color of clouds), plume background, and operating rate (load or fuel consumption rate, ***if known***) on the sheet at the time opacity observations are initiated and completed;

   The qualifier "if known" was added to Condition 4.1a(ii) because the Permittee is not required to install fuel or load meters specifically to comply with this condition. However, the Permittee is required to record the exact operating rate (fuel or load consumption rate) on the data sheet, at the time opacity observation is performed, if this information is available for an individual unit from a fuel or load meter (or other means).

As such, for a unit subject to this requirement that does not have an individual fuel or load meter, the Permittee shall estimate the operating rate and record it on the data sheet at the time opacity observation is performed.

The standard operating condition for some equipment (e.g., fire water pumps and cranes) is not steady state and therefore likely to be variable during the observation. For such equipment, the Permittee may refer to the estimated load recorded under Condition 4.1a(ii) as "online" or "idle".

Beyond as noted above, the Department has previously determined that the standard conditions adequately meet the requirements of 40 C.F.R. 71.6(a)(3). No additional emission unit or stationary source operational or compliance factors indicate the unit-specific or stationary-source-specific conditions would better meet the requirements. Therefore, the Department concludes that the standard conditions as modified meet the requirements of 40 C.F.R. 71.6(a)(3).

Liquid Fuel-Fired:

Monitoring - The visible emissions shall be observed by Method-9 plan as detailed in Condition 3.1. The Permittee has opted not to use the Smoke/No Smoke plan, so this option has been removed from the permit. 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 and record any actions taken to reduce visible emissions.

Reporting - The Permittee is required to report: 1) emissions in excess of the federal and the State visible emissions standard and 2) deviations from permit conditions. The Permittee is required to include copies of the results of all visible emission observations with the stationary source operating report.

Insignificant Emission Units:

For EU ID 19, no visible emissions monitoring is required because this unit is insignificant as set out by 18 AAC 50.326(g)(7). No monitoring is required in accordance with Department Policy and Procedure No. AWQ 04.02.103, Topic # 3, dated October 8, 2004. The Permittee must annually certify compliance under Condition 74 with the opacity standard.

Incinerator:

The Permittee is required to monitor, record and report according to Condition 2.

Conditions 6 - 12, Particulate Matter (PM) Standard and MR&R

Legal Basis: These conditions ensure compliance with the applicable requirement in 18 AAC 50.055(b). This requirement applies to operation of all industrial processes and fuel burning equipment in Alaska. EU IDs 1 – 10 and 12 – 19 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 to violate this standard.

MR&R requirements are listed in Conditions 7 through 12 of the permit.

Liquid Fuel-Fired:

For liquid fuel-fired units, the MR&R conditions are Standard Condition IX 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 conditions 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 particulate matter.

The request to waive the PM test requirement in the event that an excess emission which was the result of an abnormal load condition, instead of unit equipment malfunction, is denied; the condition is a standard condition as written and was adopted as such.

Insignificant Emission Units:

For EU ID 19, no particulate matter emissions monitoring is required because this unit is insignificant as set out by 18 AAC 50.326(g)(7). No monitoring is required in accordance with Department Policy and Procedure No. AWQ 04.02.103, Topic # 3, dated October 8, 2004. The Permittee must annually certify compliance under Condition 74 with the particulate matter standard.

Condition 13, Sulfur Compound Emissions

Legal Basis: This condition requires the Permittee to comply with the sulfur compound emission standard for all fuel-burning equipment and industrial processes in the State of Alaska. EU IDs 1 – 10 and 12 – 19 are fuel-burning equipment and industrial processes. 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).

Liquid Fuels:

Fuel containing no more than 0.75 percent sulfur by weight will always comply with the emission standard (i.e., No. 2 diesel fuel is 0.5 percent by weight or less by grade specification). The Department modified Standard Condition XI MR&R to serve to be adequate for the 0.15 percent limit after strategic reconfiguration as listed in Condition 20. The MR&R conditions have been streamlined based on the more stringent sulfur limits of 0.15 percent rather than have two sets of MR&R. The Department also corrected Condition 13.3 to replace the text *"…method listed in 18 AAC 50.035 or an alternative method approved by the Department*" with *"…method listed in 18 AAC 50.035(b)-(c) and 40 C.F.R. 60.17 incorporated by reference in 18 AAC 50.040(a)(1)".* The text *"…or an alternative*

method approved by the Department" was discarded during the Revised Action Plan submitted to EPA on July 15, 2007, as a result of the EPA Audit of the September 2006 Title V Program Review. This text is not to be used in subsequent permits since it allows a Permittee to bypass the public process for changing monitoring requirements by submitting off-record requests to change monitoring methods.

Beyond as noted above, the Department has previously determined that the standard conditions adequately meet the requirements of 40 C.F.R. 71.6(a)(3). No additional emission unit or stationary source operational or compliance factors indicate the unit-specific or stationary-source-specific conditions would better meet the requirements. Therefore, the Department concludes that the standard conditions as modified meets the requirements of 40 C.F.R. 71.6(a)(3).

Conditions 14 - 21, Pre-Construction Permit Requirements

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

Factual Basis: Condition 14 incorporate owner requested limits to avoid classification as HAP major as developed in Permit No. 098CP01. The permit incorporates associated monitoring, recordkeeping, and reporting requirements.

Conditions 16 though 21 incorporate terms and conditions as developed in Permit No. 098CP02 and revised by Permit No. AQ098MSS01 for the strategic reconfiguration alternative operating scenario. Condition 15 was added to indicate when the strategic reconfiguration alternative operating scenario is enacted, as well as to enforce limits established in existing operations for units that will continue to operate in the alternative operating scenario. Condition 18 is an owner requested limit to avoid PSD major modification; Condition 20 is an owner requested limit to avoid PSD major modification and protect ambient air; and Condition 21 is an owner requested limit to protect ambient air. The permit incorporates associated monitoring, recordkeeping, and reporting requirements.

Conditions 22 - 25, Insignificant Emission Units

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

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

The Department finds that the insignificant units at this stationary source do not require specific monitoring, recordkeeping and reporting to ensure compliance under these conditions. The Department did not approve the requested change to delete Condition 22.2. The condition is standard as written and consistent with other Pump Station permits.

Condition 22.1 requires certification that the units did not exceed State emission standards during the previous year and did not emit any prohibited air pollution.

Conditions 26 - 27, Owner Requested Limits to Qualify for Federal Exemption

Legal Basis: Existing incinerators that burn medical waste or commercial/industrial waste may be subject to C.F.R. 62, Subpart HHH for Hospital/Medical/Infectious Waste Incinerators or 40 C.F.R. 62, Subpart III for existing Commercial and Industrial Solid Waste Incinerators. EU ID 11 qualifies for an exemption of these subparts because of the amounts of waste burned and these conditions require the Permittee to comply with such measures.

Factual Basis: These conditions incorporate the exemption requirements with monitoring, record keeping and reporting.

Conditions 28 - 35, NSPS Subpart A Requirements

Legal Basis: The Permittee must comply with those New Source Performance Standard (NSPS) provisions effective July 1, 2007, incorporated by reference, for specific industrial activities as listed in 18 AAC 50.040[6].

Most affected facilities (with the exception of some storage tanks) subject to an NSPS are subject to Subpart A. At this stationary source, 2 and 3 (when equipped with Solar Turbine Engine Serial Nos. 0756S21 or 0753S21) are subject to NSPS Subpart GG, while EU ID 20 is subject to NSPS Subpart K. These emission units are therefore subject to Subpart A.

Condition 28.1 through 28.3 – The Permittee has already complied with the notification requirements in 40 C.F.R. 60.7 (a)(1) & (3) for EU IDs 2 and 3 (when equipped with Solar Turbine Engine Serial Nos. 0756S21 or 0753S21). However, the Permittee is still subject to these requirements in the event of a new NSPS affected facility[7] or in the event of a modification or reconstruction of an existing facility[8] into an affected facility.

Condition 28.4 – The requirements to notify the EPA and the Department of any proposed replacement of components of an existing facility (40 C.F.R. 60.15) apply in the event that the fixed capital cost of the new components exceeds 50 percent of the fixed capital cost that would be required to construct a comparable entirely new facility.

Condition 29 – Start-up, shutdown, or malfunction record maintenance requirements in 40 C.F.R. 60.7(b) are applicable to all NSPS affected facility subject to Subpart A.

Conditions 30 and 31 – NSPS excess emission reporting requirements and summary report form in 40 C.F.R. 60.7(c) & (d) are applicable to affected units that use continuous

[6] EPA has not delegated to the Department the authority to administer the NSPS program as of the issue date of this permit.

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

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

monitoring device and for turbines subject to Subpart GG that use periodic sulfur monitoring requirement in Condition 39.1a. 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 stationary source.

Recordkeeping requirements in 40 C.F.R. 60.7(f) are applicable to all NSPS emission units. (Satisfied by Condition 68).

Condition 32 – The Permittee has already complied with the initial performance test requirements in 40 C.F.R. 60.8 for EU IDs 2 and 3 (when equipped with Solar Turbine Engine Serial Nos. 0756S21 or 0753S21). However, the Permittee is still subject to these requirements in the event of a new NSPS affected facility, in the event of a modification or reconstruction of an existing facility into an affected facility, or at such other times as may be required by EPA.

Condition 33 – Good air pollution control practices in 40 C.F.R. 60.11 are applicable to all NSPS sources subject to Subpart A (EU IDs 2 and 3 (when equipped with Solar Turbine Engine Serial Nos. 0756S21 or 0753S21) and EU ID 20).

Condition 34 – This condition states that any credible evidence may be used to demonstrate compliance or establishing violations of relevant NSPS standards for EU IDs 2 and 3 (when equipped with Solar Turbine Engine Serial Nos. 0756S21 or 0753S21) and EU ID 20.

Condition 35 – Concealment of emissions prohibitions in 40 C.F.R. 60.12 are applicable to EU IDs 2 and 3 (when equipped with Solar Turbine Engine Serial Nos. 0756S21 or 0753S21).

Factual Basis: Subpart A contains the general requirements applicable to all affected facilities (sources) subject to NSPS. In general the intent of NSPS is to provide technology-based emission control standards.

Condition 36, NSPS Subpart K Requirements

Legal Basis: NSPS Subpart K applies to storage vessels for petroleum liquids with storage capacities greater than 40,000 gallons that were built or modified after March 8, 1974 and prior to May 19, 1978. EU ID 20 was constructed during this time frame. This storage vessel has storage capacity greater than 40, 000 gallons and store petroleum liquids.

Factual Basis: This condition incorporates the equipment standards and recordkeeping requirements of 40 C.F.R. Subpart K, as set out in Conditions 36.1 through 36.3. Per 40 C.F.R. 60.113(d), the Permittee is exempt from the operational monitoring requirements of Condition 36.3 if the true vapor pressure of the liquid stored in the tanks is maintained below 1.0 psia, or if the affected tanks are equipped with a vapor recovery and return or disposal system in accordance with the requirements of Conditions 36.1 and 36.2. If the true vapor pressure is maintained below 1.5 psia, then there are no applicable equipment standards. If these criteria are met, then there are no applicable requirements other than those found in 40 C.F.R. 60, Subpart A.

During processing of the initial Title V operating permits for APSC PS-1, 3, 4, 5, and 12, the Department granted permit shields for Subpart K based on the applicability letter from EPA dated March 3, 1983 and an August 10, 1979 EPA Region X memorandum stating that Subpart K standards are unenforceable because they are work practice/equipment (and not

emissions) standards promulgated in 1974 prior to the 1977 CAA amendments. However, neither documents stated that Subpart K is not applicable. In the case Adamo Wrecking, 434 US 257 (1978), the U.S. Supreme Court determined for that case that work practices standards were not authorized by the 1970 Clean Air Act.

However, during the renewal permit processing, the Department has re-evaluated the previous permit shield decision and has asserted that the Subpart K provisions should be included in the permit and the shield removed, based on the Department's position that: (a) in State regulation Subpart K has been adopted as an applicable requirement for other Title V sources; and (b) the 6th Circuit Court (Adamo Wrecking) does not have jurisdiction in the 9th Circuit Court area. In addition, NSPS Subpart K was promulgated on March 8, 1974 (39 FR 9317) and revised several times thereafter (i.e., April 17, 1974, June 4, 1974, July 25, 1977, April 4, 1980, January 27, 1983, April 8, 1987, and October 17, 2000). With successive revisions of Subpart K and in recognition that neither the Circuit Court nor EPA vacated the subpart the Department deemed that EPA still holds it as an applicable requirement. The Department also notes that other air quality control state agencies have included NSPS Subpart K requirements for affected petroleum storage tanks as conditions in their operating permits, just like any other applicable federal requirements. Furthermore, the EPA continues to delegate authority to implement and enforce certain NSPS that includes Subpart K to several regional, state, and local agencies (e.g., the Puget Sound Clean Air Agency (PSCAA). As such and in view of the fact that Subpart K is applicable to the aforementioned Pump Stations, the Department is including the Subpart K requirements into this operating permit renewal and is rejecting APSC's shield request for Subpart K.

Finally, the State adopted this standard by reference under State Statutes effective January 1997 after the Clean Air Act amendments of 1990. The Department included it as part of its EPA approved Operating Permit Program approval. EPA approved the packet effective November 30, 2001. Since adoption, no State court has found this standard as not applicable nor unenforceable. Note that the Department periodically updates its incorporations by reference, most recently the C.F.R. as revised through July 1, 2007.

Conditions 37, Turbine Replacements and Relocations

Legal Basis: This condition reflects the EPA determination letter dated August 1, 2002 regarding 40 C.F.R. 60 Subpart GG applicability on the Solar turbine engines that are moved from location to location between TAPS pump stations.

Factual Basis: The Permittee has a family of turbine engines that are rotated in and out of operation for EU IDs 1 – 6 as dictated by maintenance. Two replacement Solar Turbine Engines (Serial Nos. 0756S21 and 0753S21), each of which consists of a generator and a turbine, were manufactured after the applicability dates for 40 C.F.R. 60, Subpart GG. This permit has permit terms that address the replacement of the existing turbines with the Solar Turbines Engines that have been identified as being subject to 40 C.F.R. 60, Subpart GG. EU IDs 2 and 3 are the only positions where the Permittee has requested the flexibility of operating these Subpart GG turbines.

The Permittee received a letter from EPA dated August 1, 2002 that concurred the practice of relocating turbine engines to existing turbine locations did not act as a form of "commenced construction" under 60 C.F.R. 52.21(b) or 40 C.F.R. 60.2. To ensure that future turbine

engine changes do not result in a "modification" or a "reconstruction" as defined under 40 C.F.R. 60, the Permittee is required to keep maintenance records and to report under Condition 73 the relocation and replacement of the Solar gas turbines. Conditions 37.2 through 37.5 require monitoring, recordkeeping, and reporting to document that the turbines not subject to NSPS Subpart GG can be clearly identified and that the relocation and replacement of existing turbines from the pool does not constitute a "modification" or "reconstruction", as those terms are defined in 40 C.F.R. 60 Subpart A. These conditions apply only to the affected Solar turbine units.

The request to eliminate the condition to notify the Department no later than 14 days after any rotation of an NSPS Subpart GG turbine is denied. The condition as written is consistent with other Pump Station permits.

Conditions 38 - 39, NSPS Subpart GG Requirements

Legal Basis: This condition prohibits the Permittee from exceeding emission standards set out in Subpart GG. NSPS Subpart GG applies to stationary gas turbines with a heat input at peak load (maximum load at 60 percent relative humidity, 59 degrees 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 and on or before February 18, 2005.

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

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

$$STD_{NOX} = 0.015(14.4/Y) + F$$

where,

STD_{NOx} = allowable NOx 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

F = NOx emissions allowance for fuel bound nitrogen, percent by volume, assumed to be zero for Alaska fuel.

Based on the manufacturer's heat rating at manufacturer's rated peak load, and assuming fuel bound nitrogen of zero, the NOx standard is 150 ppmv for EU IDs 2 and 3 (when equipped with Solar Turbine Engine Serial Nos. 0756S21 or 0753S21).

SO_2 Standard: The Permittee is required to comply with one of the following sulfur requirements for EU IDs 2 and 3 (when equipped with Solar Turbine Engine Serial Nos. 0756S21 or 0753S21) (turbines):

(1) do not cause or allow SO_2 emission in excess of 0.015 percent by volume, at 15 percent O_2 and on a dry basis (150 ppmv), or

(2) do not cause or allow the sulfur content for the fuel burned in EU IDs 2 and 3 (when equipped with Solar Turbine Engine Serial Nos. 0756S21 or 0753S21) to exceed 0.8 percent by weight.

The Permittee chooses to comply with option (2) above.

Condition 38, NOx Monitoring, Recordkeeping, and Reporting

Legal Basis: Periodic monitoring is included in Condition 38.1 for all turbines that normally operate for greater than 400 hours in a 12 month period. This additional monitoring is necessary to ensure that turbine emissions comply with the NSPS NOx standard and is required under 40 C.F.R. 71.6(a)(3) as the subpart does not contain MR&R sufficient for an operating permit.

Factual Basis: The Department does not have enough information to make categorical determinations that certain types of turbines, or turbines with emission test results below a certain percentage of the Subpart GG NOx emission limit will inherently comply with the Subpart GG limit at all times and will never need additional testing. After a sufficient body of NOx data is gathered under monitoring conditions for compliance with 40 C.F.R. 60, Subpart GG, the Department may find that it has enough information to make such categorical determinations. In that event, the Department would revise the NOx monitoring conditions. The Department may determine that to assure compliance it is necessary to retain or increase the current monitoring frequency.

These conditions do not include the initial NSPS performance test requirements as the Subpart A conditions cover these requirements. If an existing or new turbine under this permit is still subject to the performance test requirement of 40 C.F.R. 60.8, such requirement 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 NOx emissions at less than or equal to 90 percent of the limit shown in Condition 37 then periodic monitoring is required at the first applicable of three criteria: either within 5 years of the last performance test, or within a year of the issue date of the permit, or within a year of exceeding 400 hours of operation within a 12-month period. For clarification, the Department added a 6 month cut-off date for triggering source testing within 1 year after permit issue date in accordance with Condition 38.1a(i)(B). The 6-month trigger identifies when Condition 38.1a(i)(C) would be enacted to require source testing within 1 year of triggering 400 hours. This ensures that a unit would not appear to be out of compliance with Condition 38.1a(i)(B) once it finally triggered Condition 38.1a(i)(C).

If the most recent performance test showed operations at greater than 90 percent of the limits in Condition 38, then periodic monitoring source testing is required every year until two consecutive tests show emissions at less than or equal to 90 percent of the limit.

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

Subpart GG defines "emergency gas turbine[9]" 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 38.1b(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.

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 NOx 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 39 SO_2 Monitoring, Recordkeeping, and Reporting

Legal Basis: This Condition requires the Permittee to comply with NSPS Subpart GG SO_2 or fuel quality monitoring, record keeping and reporting.

Factual Basis*:* Monitoring, recordkeeping, and reporting requirements for this condition are described in NSPS Subpart GG and have been referenced here. No additional monitoring outside of the Subpart GG requirements is necessary to ensure compliance with the NSPS SO_2 standard.

Monitoring: Condition 39.1 incorporates NSPS Subpart GG fuel sulfur monitoring requirements.

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 Condition 68.

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

Reporting: NSPS Subpart GG SO_2 standard reporting requirements for turbines monitored under Condition 39.1a are incorporated in the permit in Condition 39.4. For the purpose of the EEMSP reports and summary report required under 40 C.F.R. 60.7(c), report daily periods during which the sulfur content of the fuel being fired in the turbine exceeds 0.8 percent. As stated in Conditions 30, 31, and 72, reports are to be submitted to the Department and EPA, and summarized in the operating report required under Condition 73.

Condition 40, NSPS Subpart IIII Requirements

Legal Basis: This condition requires the Permittee to comply with NSPS Subpart IIII for new stationary compression ignition internal combustion engines.

Factual Basis: Condition 40 requires the Permittee to notify the Department whether the new engines are subject to NSPS Subpart IIII. If the units are subject, Condition 40.1 requires that the Permittee comply with Subpart IIII and A (General Provisions).

Conditions 41 - 43, Standard Terms and Conditions

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

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

Condition 44, Administration Fees

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

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

Conditions 45 - 46, Emission Fees

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

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

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

The default assessable emissions are emissions of each air pollutant authorized by the permit (AS 46.14.250(h)(1)(A)).

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

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

The Department modified the standard condition to correct Condition 46.2 such that it referenced "submitted" (i.e., postmarked) rather than "received" in accordance with the timeframe of Condition 46.1.

Condition 47, Good Air Pollution Control Practice

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

Factual Basis: The condition requires the Permittee to comply with good air pollution control practices for all emission units (except insignificant emission units).

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

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

Condition 48, Dilution

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

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

Condition 49, Reasonable Precautions to Prevent Fugitive Dust

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

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

Condition 50, Stack Injection

Legal Basis: This condition ensures compliance with the applicable requirement in 18 AAC 50.045(e)-(f) and 50.055(g). It prohibits the Permittee from releasing materials other than process emissions, products of combustion, or materials introduced to control pollutant emissions from a stack (i.e. disposing of material by injecting it into a stack). Stack injection requirements apply to the stationary source because the stationary source contains a stack or 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 emission unit or stack would need to be modified to accommodate stack injection.

Condition 51, Air Pollution Prohibited

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

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

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

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

Condition 52, Technology-Based Emission Standard

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

Factual Basis: The conditions of this permit list applicable technology-based emission standards and require excess emission reporting for each standard in accordance with Condition 72. Excess emission reporting under Condition 72 requires information on the steps taken to minimize emissions. Monitoring of compliance for this condition consists of the report required under Condition 72.

Condition 53, Asbestos NESHAP

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

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

Condition 54, Refrigerant Recycling and Disposal

Legal Basis: This condition 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, which will apply if the Permittee uses certain refrigerants.

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

Condition 55, NESHAPs Applicability Determinations

Legal Basis: This condition requires the Permittee to keep and make available to the Department copies of the major stationary source determination and applicability of specific federal regulations that may apply to its stationary sources.

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 keep and make available to the Department copies of the major stationary source determination.

Conditions 56 - 57, Halon Prohibitions

Legal Basis: These prohibitions apply to all stationary sources that use halon for fire extinguishing and explosion inerting. The condition prohibits the Permittee from causing or allowing violations of these prohibitions. The stationary source uses halon and is therefore subject to the federal regulations contained in 40 C.F.R. 82.

Factual Basis: These conditions incorporate applicable 40 C.F.R. 82 requirements. This condition is aimed at halon fire fighting systems used at stationary sources with significant sized emission units. Although the condition is titled Halon Prohibitions, it references the Protection of Stratospheric Ozone prohibitions in both Subpart G (Significant New Alternatives Policy Program) and Subpart H (Halon Emission Reduction).

Condition 58, 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. The Department has modified the condition by incorporating the requirements of 18 AAC 50.065 by reference. Condition 58.1 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 74.

Condition 59, Requested Source Tests

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

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

Conditions 60 - 62, Operating Conditions, Reference Test Methods, Excess Air Requirements

Legal Basis: These conditions ensure compliance with the applicable requirement in 18 AAC 50.220(b) and apply because the Permittee is required to conduct source tests by this permit. The Permittee is required to conduct source test as set out in Conditions 60 through 62.

Factual Basis: These conditions supplement the specific monitoring requirements stated elsewhere in this permit. Compliance monitoring with Conditions 60 through 62 consists of the test reports required by Condition 67.

Condition 63, Test Exemption

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

Factual Basis: As provided in 18 AAC 50.345(a), amended May 3, 2002, 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 64 - 67, Test Deadline Extension, Test Plans, Notifications and Reports

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

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

Condition 68, 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 69, Certification

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

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

Condition 70, Submittals

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

Factual Basis: This condition requires the Permittee to send submittals to the address specified in this condition. 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 reporting requirements of this permit.

Condition 71, Information Requests

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

Factual Basis: This condition incorporates a standard condition in regulation, which requires the Permittee to submit information requested by the Department. Monitoring consists of receipt of the requested information.

Condition 72, Excess Emission and Permit Deviation Reports

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

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

The Department adopted this condition as Standard Operating Permit Condition III under 18 AAC 50.346(c) pursuant to AS 46.14.010(e). The Department determined that this standard condition adequately meet the requirements of 40 C.F.R. 71.6(a)(3). No emission unit or stationary source operational or compliance factors indicate that unit-specific or stationary-source specific conditions would better meet these requirements. Therefore, the Department concluded that the standard conditions meet the requirements of 40 C.F.R. 71.6(a)(3). The Department made a correction to the Standard Operating Permit Condition III to allow identical reporting methodology for both Excess Emissions and Permit Deviations reports which use identical forms and should have identical submissions methods. The Department further amended the language to specifically cross reference conditions that require APSC to submit a permit deviation/excess emission notification. Beyond as noted above, the Department has previously determined that the standard conditions adequately meet the requirements of 40 C.F.R. 71.6(a)(3). No additional emission unit or stationary source operational or compliance factors indicate the unit-specific or stationary-source-specific conditions would better meet the requirements. Therefore, the Department concludes that the standard conditions as modified meets the requirements of 40 C.F.R. 71.6(a)(3).

Section 13, Notification Form

The Department modified the notification form, deviating from Standard Permit Condition IV, to more adequately meet the requirements of Chapter 50, Air Quality Control. The modification consisted of correcting typos and moving failure to monitor/report and recordkeeping to the permit deviations Section 2.

Condition 73, Operating Reports

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

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

The Department used the Standard Permit Condition VII as adopted into regulation on August 20, 2008. 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 correction to the Standard Permit Condition VII by changing the number of copies of documents to be submitted from "an original and two copies" to "an original and one copy". Beyond as noted above, the Department has previously determined that the standard conditions adequately meet the requirements of 40 C.F.R. 71.6(a)(3). No additional emission unit or stationary source operational or compliance factors indicate the unit-specific or stationary-source-specific conditions would better meet the requirements. Therefore, the Department concludes that the standard conditions as modified meets the requirements of 40 C.F.R. 71.6(a)(3).

Condition 74, 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. The reports themselves provide monitoring for compliance with this condition.

Condition 74.2 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 were 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 and the effective permit at that time, or may chose 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.

This condition was further modified to allow the Permittee to submit one of the required two copies in electronic format. This change more adequately meets the requirements of 18 AAC 50 and agency needs, as the Department can more efficiently distribute the electronic copy to staff in other locations.

Condition 75, NSPS and NESHAP Reports

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

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

The Permittee's request to modify the condition language by adding "unless already submitted" at the beginning of the condition was not granted. The condition as written is a standard language.

Condition 76, Permit Applications and Submittals

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

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

Conditions 77 - 79, Permit Changes and Revisions Requirements

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

Factual Basis: These are conditions 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 71.6(a)(13)(iii).

Condition 80, Permit Renewal

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

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

Therefore, for as long as an application has been submitted within the timeframe allowed under 40 C.F.R. 71.5(a)(1)(iii), and is complete before the expiration date of the existing

permit, then the expiration of the existing permit is extended and the Permittee has the right to operate under that permit until the effective date of the new permit. However, this protection shall cease to apply if, subsequent to the completeness determination, the applicant fails to submit by the deadline specified in writing by the Department any additional information needed to process the application. Monitoring, recordkeeping, and reporting for this condition consist of the application submittal.

Conditions 81 - 86, General Compliance Requirements and Schedule

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

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

Conditions 87 - 88, Permit Shield

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

Factual Basis: Table B of Operating Permit No. AQ0098TVP02 shows the permit shields that the Department granted to the Permittee. The following table shows the requests that were denied and the reasons that they were denied. The Department based the determinations on the permit application, past operating permit, likelihood for the source to become subject during the life of the permit, Title I permits and inspection reports.

Table G - Permit Shields Denied

Shield Requested for:	Reason for Shield Request:	Reason for Request Denial:
Subpart K – Standards of Performance for Storage Vessels for Petroleum Liquids for Tank EU ID 20	Subpart K is a work practice standard. In the case Adamo Wrecking, 434 US 257 (1978), the U.S. Supreme Court determined that work practices standards were not authorized by the Clean Air Act. The EPA documented this decision for purposes of Subpart K in a memorandum dated 8/10/79. EPA transmitted a specific letter to APSC stating the application of the decision for the crude oil tanks and that Subpart K was not enforceable.	In State regulation Subpart K has been adopted as an applicable requirement, and the 6th Circuit Court (Adamo Wrecking) does not have jurisdiction in the 9th Circuit Court area. See also Statement of Basis text regarding Condition 36.

Shield Requested for:	Reason for Shield Request:	Reason for Request Denial:
40 C.F.R. 60 Subpart IIII – Standards of Performance for Stationary Compression Ignition Internal Combustion Engines for EU IDs 12 – 16	APSC stated that PS-5 did not contain equipment meeting the applicability criteria of 40 C.F.R. 60.4200(a).	The Department denied the permit shield for 40 C.F.R. 60 Subpart IIII – Standards of Performance for Stationary Compression Ignition Internal Combustion Engines because it is not yet clear whether Subpart IIII is applicable to EU IDs 12 – 16 as indicated in Condition 40.
40 C.F.R. 60 Subpart A – General Provisions: (Initial Notification/Test Only) for EU IDs 2 & 3: §60.7(a)(1), (3) & (4) – Notification and Recordkeeping §60.8(a) – Performance Test (Initial Performance Test only)	60.7(a)(1) & (3) and 60.8(a): One-time notifications required by Subpart A were fulfilled (see APSC Letter 97-11973 dated 7/15/97 to B. Thie, EPA Region X). EPA Region X waived performance test requirements (ref. Correspondence dated 2/9/84). 60.7(a)(4) applies only to existing facilities, as defined in 40 C.F.R. 60.2.	These are general NSPS requirements that are applicable anytime a modification or reconstruction of an existing or affected emission unit will result into NSPS subpart applicability, or in the event a new NSPS rule becomes applicable during the life of the permit.
40 C.F.R. 63 Subpart HHHHHH – NESHAP for Paint Stripping and Miscellaneous Surface Coating Operations for Stationary Source-Wide	MeCl is not used for paint stripping. Painting activities occurring at the stationary source meet the definition of facility maintenance as defined by 40 C.F.R. 63.11180, and thus, are categorically exempt from 63.11170(a)(2) & (3).	Although APSC certified they only conduct such activities for maintenance and do not, at the time of application, use MeCl, APSC is not prohibited from using this solvent during the life of this permit.
18 AAC 50.055(g) for turbines, Stationary Source-Wide	The stationary source does not emit any emissions from a stack other than process emissions, products of combustion, or materials introduced to control pollutant emissions without the approval of the Department. Incinerators are not fuel burning equipment as defined in 18 AAC 50.990(40). Therefore the solid waste incinerators are exempt from this requirement.	18 AAC 50.055(g) is a state standard term that applies to all stationary sources.

Attachment A

Figure 1 -- Summary Report -- Excess Emission and Monitoring System Performance

Pollutant (Circle One—SO_2/NOx/fuel sulfur)

Reporting period dates:

From _____ to _____

Company: _____

Emission Limitation: _____

Address: _____

Monitor Manufacturer and Model No.: _____

Date of latest CMS (CEMS and PEMS) Certification or Audit: _____

Process Unit(s) Description: _____

Total source operating time in reporting period[1]: _____

Emission Data Summary[1]	CMS (CEMS and PEMS) Performance Summary[1]
1. Duration of excess emissions in reporting period due to:	1. CMS (CEMS and PEMS) downtime in reporting period reporting period due to:
a. Startup/shutdown _____	a. Monitor equipment malfunctions _____
b. Control equipment problems _____	b. Non-Monitor equipment malfunctions _____
c. Process problems _____	c. Quality assurance calibration _____
d. Other known causes _____	d. Other known causes _____
e. Unknown causes _____	e. Unknown causes _____
2. Total duration of excess emission _____	2. Total CMS (CEMS and PEMS) Downtime _____
3. Total duration of excess emissions X (100)/[Total source operating time] _____ %[2]	3. [Total CMS (CEMS and PEMS) Downtime] X (100)/[Total source 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 (CEMS or PEMS) downtime is 5 percent or greater of the total operating time, both the summary report form and the excess emission report described in this condition shall be submitted.

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