

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

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**Hilcorp North Slope, LLC
Central Power Station**

**STATEMENT OF BASIS
for
Permit No. AQ0186TVP04**

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INTRODUCTION

This document sets forth the statement of basis for the terms and conditions of Operating Permit No. AQ0186TVP04.

STATIONARY SOURCE IDENTIFICATION

Section 1 of Operating Permit No. AQ0186TVP04 contains information on the stationary source as provided in the Title V permit application.

The stationary source, Central Power Station (CPS), is owned by Hilcorp North Slope, LLC, ConocoPhillips Alaska, Inc., Chevron USA Inc., and ExxonMobil Corporation. Hilcorp North Slope, LLC is the Permittee for the stationary source's operating permit. The standard industrial classification (SIC) code for this stationary source is 1311 - Crude Petroleum and Natural Gas.

The stationary source produces all the electric power for the Prudhoe Bay Unit (PBU) oil producing facilities. The stationary source uses seven fuel gas-fired turbines. Four small black start engines are used to assist in a black start of four of the turbines. These engines are used less than a dozen times per year per turbine and operate for a short period of time (historically less than three hours per year each). There are three fuel gas heaters that are used to raise the turbine fuel gas temperature. These heaters are fuel gas fired and use a glycol heat exchanger system to heat the fuel gas. The CPS has two diesel-fired emergency generators. These generators are emergency-use only and used periodically to assure electric power availability in the case of a total CPS outage. These reciprocating internal combustion engines (RICE) are also occasionally used to bring Unit Auxiliary Motor Control Centers online in order to restart the fuel gas turbines when necessary. These RICE are capped by a 200-hr per year operating limit.

EMISSIONS 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 CFR 71.5(c)(3).

The emissions units at the stationary source that have specific monitoring, recordkeeping, and reporting requirements are listed in Table A of the operating permit. Table A contains information on the emissions units regulated by the operating permit as provided in the application. The table is provided for informational and identification purposes only. Specifically, the emissions 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 for the stationary source is shown in the table below.

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(22).

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

Emissions	NO _x	CO	PM ₁₀	SO ₂	VOC	CO ₂ e ¹	HAPs	Total ²
PTE	4,301.28	937.14	75.61	279.31	24.47	1,336,524	18.6	5,617.81
Assessable PTE	4,301.28	937.14	75.61	279.31	24.47	0	0	5,617.81

Table Notes:

- ¹ CO₂e emissions are defined as the sum of the mass emissions of each individual GHG adjusted for its global warming potential.
- ² Total PTE and total assessable PTE shown in the table do not include CO₂e and HAPs.

The assessable PTE listed under Condition 41.1 is the sum of the PTE of each individual air pollutant, other than greenhouse gases (GHGs), for which the stationary source has the potential to emit. The emissions listed in Table C are estimates that are for informational use only. The listing of the emissions does not create an enforceable limit for the stationary source.

For all pollutants, PTE is as provided in the operating permit application. PTE differs from that in the statement of basis for Operating Permit AQ0186TVP03 due to revised rating values for EU IDs 1 through 7, updated AP 42 emission factors, and removal of EU IDs 11 and 12.

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 CFR 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 the following 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 (NSPS) under Section 111 of the Clean Air Act or National Emission Standards for Hazardous Air Pollutants (NESHAP) under Section 112 of the Clean Air Act;
- Another stationary source designated by the Federal Administrator by regulation.

The Permittee is required to obtain an operating permit for the stationary source as specified under 18 AAC 50.326(a) and 40 CFR 71.3(a), because the stationary source is a major source. This stationary source is a major source because, as defined in Section 302 of the Clean Air Act, it directly emits, or has the potential to emit, 100 tpy or more of any air pollutant subject to regulation.

AIR QUALITY PERMITS

EPA PSD Permit

EU IDs 1 through 7 were all originally installed or commenced construction prior to promulgation of the Prevention of Significant Deterioration (PSD) permitting program on

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)].

August 7, 1977. On May 17, 1979, Federal PSD permit PSD-X79-05 authorized Sohio (a previous owner) to install two 50 MW generating capacity turbines. One of these was used as part of the SWAP I-III series revisions made at Prudhoe Bay in the early 1980s. The second was never installed. Instead, under a separate project, Sohio upgraded the existing 17 MW Frame 5M units to become two 18.5 MW Frame 5R units. This action was not subject to PSD permitting. The two upgraded units (EU IDs 1 and 2) became affected facilities under NSPS Subpart GG at the time of the upgrade. Permit PSD-X79-05 was amended on August 29, 1997 to clarify the limits and the emission units to which the limits apply. As none of the CPS emission units originally permitted under PSD-X79-05 were installed, no EPA PSD permit emission limits apply to CPS as reflected in the amended permit.

Permits to Operate

The last permit to operate issued for this stationary source is Permit to Operate No. 9473-AA032. This permit to operate included all construction authorizations issued through December 27, 1994, and was issued before January 18, 1997 (the effective date of the divided Title I/Title V permitting program). All stationary source-specific requirements established in this permit were included in Construction and Operating Permit No. 186CP01 & 186TVP01, issued January 7, 2003.

Title I (Construction and Minor) Permits

Construction Permit No. 186CP01. The Department issued this permit, a combined construction and operating permit, on January 7, 2003. This permit contained Title I requirements carried forward from Permit to Operate 9473-AA032. As noted in the technical analysis report for Minor Permit AQ0186MSS01, this permit and the Title I requirements expired on February 6, 2008. Therefore, no Title I requirements established in this permit are included in Operating Permit No. AQ0186TVP04.

Minor Permit No. AQ0186MSS01. The Department issued this permit on July 21, 2010. This permit revised the H₂S limit for fuel gas and revised the operating time limit for EU IDs 13 and 14 from hours per calendar year to hours per rolling 12-month period per unit. All stationary source-specific requirements established in this permit are included in Operating Permit No. AQ0186TVP04 as described in Table D.

- Revision No. 1. This application was submitted on November 3, 2017 to revise EU IDs 13 and 14 to EU IDs 13b and 14a due to unit replacements. This application is not necessary as explained in the section for preconstruction permit requirements below, and the Permittee will be submitting a request to withdraw the application on or before the effective date of Operating Permit AQ0186TVP04.
- Revision No. 2. The Department issued an administrative amendment dated July 1, 2020 to change the Permittee after a change of ownership.

Title V Operating Permits

Operating Permit No. 186TVP01. The Department issued this permit, a combined construction and operating permit, on January 7, 2003.

- Revision No. 1. The Department issued an administrative amendment on August 16, 2010 to incorporate the requirements of Minor Permit AQ0186MSS01.

Operating Permit No. AQ0186TVP02. The Department issued this permit on December 28, 2010.

Operating Permit No. AQ0186TVP03. The Department issued this permit on February 10, 2017.

- Revision No. 1. This application was submitted on November 3, 2017 to revise EU IDs 13 and 14 to EU IDs 13b and 14a due to unit replacements. This application is not necessary as explained in the section for preconstruction permit requirements below, and the Permittee will be submitting a request to withdraw the application on or before the effective date of Operating Permit AQ0186TVP04.
- Revision No. 2. The Department issued an administrative amendment on July 1, 2020 to change the Permittee after a change of ownership.

The Department received the application for Operating Permit AQ0186TVP04 on August 9, 2021.

COMPLIANCE HISTORY

The stationary source has operated at its current location since 1974. Review of the permit files for this stationary source, which includes the past inspection reports and compliance evaluations indicate a stationary source generally operating in compliance with its operating permit.

APPLICABLE REQUIREMENTS FROM PRECONSTRUCTION PERMITS

Incorporated by reference at 18 AAC 50.326(j), 40 CFR Part 71.2 defines “applicable requirement” to include the terms and conditions of any preconstruction permit issued under rules approved in Alaska’s State Implementation Plan (SIP).

Alaska’s SIP includes the following types of preconstruction permits:

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

Preconstruction 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 emissions unit- or source-specific requirement established in these permits issued under 18 AAC 50 that are still in effect at the time of issuance of Operating Permit No. AQ0186TVP04. Table D below lists the requirements

carried into Operating Permit No. AQ0186TVP04 to ensure compliance with the preconstruction permit requirements.

Table D - Comparison of Minor Permit No. AQ0186MSS01 Conditions to Operating Permit No. AQ0186TVP04 Conditions

AQ0186MSS01 Condition No.	Description of Requirement	AQ0186TVP04 Condition No.	How Condition was Revised
4	H ₂ S limit for SO ₂ ambient protection	15	EU IDs 11 and 12 are not included in the operating permit condition because these units have been removed from service and are not included in the operating permit. The language “or an alternative analytical method approved by the Department” from Condition 4.1a of Minor Permit AQ0186MSS01 is not included in the operating permit because it could allow revising MR&R requirements without an opportunity for public comment.
5	Hour of operation limit for SO ₂ ambient protection	16	EU IDs 13b and 14a are now specified because they replaced EU IDs 13 and 14.

Table Note: This table does not include all standard and general conditions.

NON-APPLICABLE REQUIREMENTS

This section discusses standard conditions and other requirements that are not included in the operating permit for specific reasons.

- 40 CFR 64 Compliance Assurance Monitoring (CAM):** None of the emissions units at the stationary source use a control device to achieve compliance with emission limits or standards. Therefore, CAM requirements are not applicable.

STATEMENT OF BASIS FOR THE PERMIT CONDITIONS

The Department adopted regulations from 40 CFR 71, as specified in 18 AAC 50.040(j), in addition to creating state regulations, to establish an operating permit program. The EPA fully approved the Alaska Operating Permit Program on November 30, 2001, as noted in Appendix A to 40 CFR 70. This Statement of Basis, required under 40 CFR 71.11(b), provides the legal and factual basis for each condition of Operating Permit No. AQ0186TVP04. Additionally and as required by 40 CFR 71.6(a)(1)(i), the state and federal regulations for each permit condition are cited in the permit.

Conditions 1 through 4, Visible Emissions Standard and MR&R

Legal Basis: These conditions require 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 10, 13b, 14a, and 15 through 18 are fuel-burning equipment or industrial processes.

U.S. EPA approved the addition of these standards to the SIP, as noted in 40 CFR 52.70. The Department included permit conditions for MR&R as required by 40 CFR 71.6(a)(3) and 71.6(c)(1).

Factual Basis: These conditions prohibit the Permittee from causing or allowing visible emissions in excess of the applicable standard in 18 AAC 50.055(a)(1) and include MR&R requirements. These conditions have been adopted into regulation as Standard Permit Conditions (SPCs) VIII and IX. The Department has modified these conditions, as follows:

- 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 permit.

The Permittee must establish by visual observations, which may be supplemented by other means (e.g., a defined stationary source operation and maintenance program), that the stationary source is in continuous compliance with the state standards for visible emissions. These conditions detail a stepwise monitoring program to determine compliance with the state visible emissions standards. 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 emissions units through maintenance programs and/or more rigorous tests that will quantify whether a specific emission standard has been exceeded.

Gas Fuel-Burning Equipment:

Monitoring – The monitoring of gas fuel-burning emissions units for visible emissions is waived, i.e. no Method 9 or smoke/no smoke observations are required. The Department has found that natural gas fuel-burning equipment inherently has negligible visible emissions.

However, the Department can request a source test for visible 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-Burning Equipment:

Monitoring – The emissions units must be observed by either the Method 9 or the Smoke/No Smoke Plan. Corrective actions such as maintenance procedures or more frequent observations may be required depending on the results of the observations.

In accordance with 18 AAC 50.326(d)(1)(A), EU IDs 15 through 18 do not qualify as insignificant because they are subject to standards established under 40 CFR 63 Subpart ZZZZ. These units are otherwise insignificant because they are intermittently operated black start generators with actual emissions less than the significant emissions thresholds in 18 AAC 50.326(e). Additionally, the Permittee assumes 100 hours of operation annually for PTE calculations for these units. These units typically operate less than 10 hours a year so the Department believes the assumption is reasonable. This makes the historical actual emissions and the PTE of each unit less than the significant emissions thresholds in 18 AAC 50.326(e). Therefore, the Department has waived visible emissions monitoring for EU IDs 15 through 18, but these units are subject to compliance certification requirements, in accordance with Department Policy and Procedure No. 04.02.103, Topic #3.

In accordance with 18 AAC 50.326(d)(1)(A) and (B)(i), EU IDs 13b and 14a do not qualify as insignificant because they are subject to standards established under 40 CFR 63 Subpart ZZZZ, and they are subject to an emissions unit-specific requirement established under 18 AAC 50.201. No visible emissions monitoring is required because these emissions units are otherwise insignificant based on potential emissions due to permit conditions that limit hours of operation. As long as the emissions units do not exceed these limits, they are otherwise considered insignificant by emissions rate as specified in 18 AAC 50.326(e) and no monitoring is required in accordance with Department Policy and Procedure No. 04.02.103, Topic # 3. The Permittee must annually certify compliance with the opacity standard based on reasonable inquiry.

Recordkeeping – The Permittee is required to record the results of all visible emissions observations and record any actions taken to reduce visible emissions.

Reporting – The Permittee is required to report emissions in excess of the state visible emissions standard and deviations from permit conditions. The Permittee is also required to include in the operating report a statement of which visible emissions plan was used for each emissions unit and copies of the results of all visible emission observations.

Conditions 5 through 8, Particulate Matter Standard and MR&R

Legal Basis: These conditions require compliance with the applicable requirement in 18 AAC 50.055(b).

- 18 AAC 50.055(b)(1) applies to the operation of fuel-burning equipment and industrial processes. EU IDs 1 through 10, 13b, 14a, and 15 through 18 are fuel-burning equipment or industrial processes.

This particulate matter standard applies because it is contained in the federally-approved SIP. The Department included permit conditions for MR&R as required by 40 CFR 71.6(a)(3) and 71.6(c)(1).

Factual Basis: These conditions prohibit emissions in excess of the applicable state particulate matter standard and include MR&R requirements. These conditions have been adopted into regulation as SPCs VIII and IX.

The Permittee must establish by visual observations, which may be supplemented by other means (e.g., 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.

Gas Fuel-Burning Equipment:

Monitoring – The monitoring of gas fuel-burning emissions units for particulate matter is waived, i.e. no source testing is required. The Department has found that natural gas fuel-burning equipment inherently has negligible particulate matter emissions. However, the Department can request a source test for particulate matter 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-Burning Equipment:

Monitoring – The Permittee is required to either take corrective action, or conduct PM source testing, if opacity threshold values are exceeded. For liquid fuel-burning engines and turbines, the Department set opacity threshold values of 15 percent for stack diameters less than 18 inches and 20 percent for stack diameters equal to or greater than 18 inches. These opacity thresholds are based on a study conducted by the Department in an effort to establish a correlation between opacity and PM. The data was collected from diesel engines of various stack sizes and the results are as follows:

- For stacks normalized to 21 inches – 0.05 gr/dscf corresponds to 27% opacity
- For stacks normalized to 18 inches – 0.05 gr/dscf corresponds to 23% opacity
- For stacks normalized to 12 inches – 0.05 gr/dscf corresponds to 16.8 % opacity
- For stacks normalized to 10 inches – 0.05 gr/dscf corresponds to 14.3 % opacity

This means that the trend line for the complete data set predicts that 20% opacity corresponds to a little less than the PM limit for an 18-inch stack. There may be engines that exceed the thresholds but the intent of the standard condition is not to guarantee that each engine that might exceed the PM standard will be tested. The Department expects few, if

any, engines to actually be tested under this condition. What the Department does expect is that with the adopted condition in place, operators that find an opacity above or near the testing threshold will take corrective action necessary to reduce PM emissions. This would achieve the desired environmental outcome without the added cost of testing. The Department expects this to be the case with both thresholds.

The method is premised on the fact that a five percent difference in opacity is distinguishable. The conditions mean that if opacity readings as measured using Method 9 – with all of its limitations – exceed the threshold, the Permittee must either take corrective action or conduct a PM source test. The compliance conditions for PM do not draw a legal conclusion about whether the method shows compliance with the visible emissions standard.

Recordkeeping – The Permittee is required to record the results of particulate matter source tests and visible emissions observations conducted during the source test.

Reporting – The Permittee is required to report incidents when emissions in excess of the opacity threshold are observed and results of particulate matter source tests. The Permittee is also required to include copies of the results of all visible emission observations taken during particulate matter source testing in the operating report.

Conditions 9 through 14, Sulfur Compound Emissions Standard and MR&R

Legal Basis: This condition requires compliance with the sulfur compound emission standards under 18 AAC 50.055(c).

- 18 AAC 50.055(c) applies to the operation of fuel-burning equipment and industrial processes. EU IDs 1 through 10, 13b, 14a, and 15 through 18 are fuel-burning equipment or industrial processes.

These sulfur compound standards apply because they are contained in the federally-approved SIP. The Department included permit conditions for MR&R as required by 40 CFR 71.6(a)(3) and 71.6(c)(1).

Factual Basis: The Permittee may not cause or allow the affected equipment to violate the applicable sulfur compound standard. Sulfur dioxide comes from the sulfur in the fuel (e.g. coal, natural gas, fuel oils).

Liquid Fuels:

For liquid fuel, the MR&R conditions are SPCs XI and XII, adopted into regulation pursuant to AS 46.14.010(e).

Gaseous Fuels:

Fuel sulfur testing must be conducted to determine compliance with the SO₂ emission standard. The Permittee must comply with the monitoring requirements for the H₂S limit.

The Permittee is required to report 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 statements from the fuel supplier or the sulfur content analysis with the stationary source operating report.

Conditions 15 and 16, Preconstruction Permit Requirements

Legal Basis: The Permittee is required to comply with all stationary source-specific requirements that were carried forward from previous SIP-approved Permits to Operate issued on or before January 17, 1997 and operating permits issued between January 18, 1997 and September 30, 2004, and with all stationary source-specific requirements in EPA PSD permits, SIP-approved construction permits, SIP-approved minor permits, and owner requested limits established under 18 AAC 50.225. These requirements include Best Available Control Technology (BACT) limits, limits to ensure compliance with the attainment or maintenance of ambient air quality standards or maximum allowable ambient concentrations, and owner requested limits. Requirements from the permits listed above apply because they were originally developed through case-by-case action under a federally-approved SIP or approved operating permit program.

Factual Basis: The requirements from Title I permit conditions are included in the operating permit as described in Table D above.

The requirements from Permit to Operate 9473-AA032 and Construction Permit 186CP01 to monitor the hours of operation of EU IDs 1 through 12 and the fuel consumption for EU IDs 1 through 14 are not included in Operating Permit AQ0186TVP04. As noted in the technical analysis report for Minor Permit AQ0186MSS01, those permits have expired. Additionally, there are no hour limits for EU IDs 1 through 12 nor fuel limits for EU IDs 1 through 14 in Minor Permit AQ0186MSS01. EU IDs 11 and 12 are no longer in operation and are not included in Operating Permit AQ0186TVP04.

Operational limits of 200 hrs/yr were established for EU IDs 13 and 14 in Permit to Operate 9473-AA032 and carried into Construction and Operating Permit 186CP01 & 186TVP01. The previous Permittee used these hour limits in the SO₂ modeling analysis for Minor Permit AQ0186MSS01. In the modeling analysis review included with the Technical Analysis Report for Minor Permit AQ0186MSS01, the Department states the hour limits must be maintained to protect the annual average SO₂ AAAQS/increment, and conditions containing these limits for EU IDs 13 and 14 are included in the minor permit. The previous Permittee replaced EU IDs 13 and 14 with EU ID 13a in November 2016 and then replaced EU ID 13a with EU IDs 13b and 14a in July 2017. EU IDs 13b and 14a clearly replaced EU IDs 13 and 14, and the concerns regarding the SO₂ ambient standards remain with EU IDs 13b and 14a operating. Therefore, the Department has determined that the hour limits in Minor Permit AQ0186MSS01 remain applicable for EU IDs 13b and 14a.

Condition 17, Insignificant Emissions Units

Legal Basis: The Permittee is required to meet the state emission standards in 18 AAC 50.055 for all industrial processes and fuel-burning equipment regardless of size. As previously noted, 18 AAC 50.055 is contained in the federally-approved SIP. The

Department also added permit conditions for MR&R as required by 40 CFR 71.6(a)(3) and 71.6(c)(1).

Factual Basis: The condition requires insignificant emissions units to comply with the state emission standards for visible emissions, particulate matter emissions, and sulfur-compound emissions. Insignificant emissions units are not generally listed in operating permits unless specific monitoring, recordkeeping and reporting are necessary to ensure compliance. However, the Permittee may not cause or allow insignificant emission units at the stationary source to violate these standards whether or not they are listed in the operating permit.

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 conditions require certification that the units did not exceed state emission standards during the previous year and did not emit any prohibited air pollution. The Department used the language in SPC V for the permit condition.

Conditions 18 through 26, 40 CFR 60 Subpart A Requirements

Legal Basis: The EPA approved Alaska's Part 70 Program on November 30, 2001. The Department is the permitting authority for the Part 70 Program. Although the EPA has not delegated to the Department the authority to administer the New Source Performance Standards (NSPS), NSPS requirements are included in the definition of "applicable requirement" under 40 CFR 71.2, which has been adopted by the Department under 18 AAC 50.040(j)(1).

The Department is unable to change the wording of relevant NSPS to substitute "the Department" for "the Administrator". The Department requires access to any permit-related information provided by the Permittee to the EPA to act on its responsibility as the permitting authority to determine compliance with the NSPS. Therefore, the Department has defined "the Administrator" to mean the "EPA and the Department" for conditions implementing the federal emission standards under Section 4 of the operating permits.

The Permittee must comply with 40 CFR 60 Subpart A if the stationary source is subject to the requirements of another subpart under 40 CFR 60.

Conditions 18.1 through 18.3 - The Permittee is subject to these requirements in the event of a new NSPS affected facility³ or in the event of a modification or reconstruction of an existing facility⁴ into an affected facility.

Condition 18.4 - The requirements to notify the Administrator of any proposed replacement of components of an existing facility (40 CFR 60.15) apply in the event that the fixed capital

³ *Affected facility* means, with reference to a stationary source, any apparatus to which a standard applies, as defined in 40 CFR 60.2.

⁴ *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 CFR 60.2.

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 19 - The requirements in 40 CFR 60.7(b) to maintain start-up, shutdown, or malfunction records are applicable to most NSPS affected facilities.

Conditions 20 and 21 - NSPS excess emission reporting requirements and summary report form in 40 CFR 60.7(c) & (d) are applicable if the Permittee elects to periodically determine fuel sulfur content under NSPS Subpart GG. The Department has included a copy of the federal EEMSP summary report form as Attachment 1 to the operating permit.

Condition 22 - Recordkeeping requirements in 40 CFR 60.7(f) are applicable to all NSPS affected facilities. Records are required to be kept for five years in accordance with 40 CFR 71.6(a)(3)(ii)(B) rather than the two years specified in 40 CFR 60.7(f).

Condition 23 - The Permittee has already complied with the initial performance test requirements in 40 CFR 60.8. 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 24 - Good air pollution control practices in 40 CFR 60.11 are applicable to most NSPS affected facilities.

Condition 25 - states that any credible evidence may be used to demonstrate compliance or to establish violations of relevant NSPS standards.

Condition 26 - Concealment of emissions prohibitions in 40 CFR 60.12 are applicable to most NSPS affected facilities.

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

Condition 27, 40 CFR 60 Subpart GG Requirements

Legal Basis: The Department has incorporated by reference the NSPS requirements for specific industrial activities, as listed in 18 AAC 50.040(a). NSPS Subpart GG applies to stationary gas turbines with a heat input at peak load equal to or greater than 10.7 gigajoules (10 million Btu) per hour. EU IDs 1 and 2 are subject to the requirements of Subpart GG under 40 CFR 60.330 because they are rated at greater than 10 MMBtu/hr and underwent modification in 1980.

Factual Basis: These conditions incorporate NSPS Subpart GG NO_x emission and sulfur compound limits.

NO_x Standard: For a turbine subject to 40 CFR 60.332, the NO_x standard is determined by the following equation:

$$\text{STD}_{\text{NO}_x} = 0.015 \left(\frac{14.4}{Y} \right) + F$$

Where:

- STD_{NO_x} = allowable NO_x emissions (percent by volume at 15 percent oxygen 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, assumed to be zero for distillate fuel oil and gaseous fuels.

Based on the manufacturer's heat rating at the rated peak load, and assuming fuel bound nitrogen of zero, the NO_x standard is 150 ppmvd.

The Department included periodic monitoring for the NSPS NO_x limit as required under 40 CFR 71.6(a)(3), because NSPS Subpart GG does not contain MR&R sufficient for an operating permit. The intent of these conditions is that turbines or groups of turbines be routinely tested on no less than a 5-year cycle. These turbines have operated significantly more than 400 hours per year for the past five years. Therefore, source testing is required no more than 5 years from the previous test if test results are 90 percent of the emissions limit or less. Source testing is required every year until two consecutive test results are less than or equal to 90 percent of the limit if the previous test was 90 percent of the limit or more.

These conditions do 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 conditions, but the Department will evaluate the adequacy of the method proposed by the Permittee in the source test plan.

SO₂ Standard: The Permittee is required to comply with one of the following requirements for EU IDs 1 and 2:

- 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 ppmvd), or
- Do not cause or allow the sulfur content for the fuel burned in the turbine to exceed 0.8 percent by weight.

MR&R for the sulfur standard is as required in NSPS Subpart GG. In accordance with 40 CFR 60.334(h)(3), the Permittee may elect not to monitor the total sulfur content of the gaseous fuel combusted by affected turbines, if the gaseous fuel is demonstrated to meet the

definition of natural gas in 40 CFR 60.331(u), regardless of whether an existing custom schedule approved by the Administrator requires monitoring. For purposes of demonstrating compliance with the ambient air quality protection limit, the Permittee is required to continue monitoring gaseous fuel H₂S content monthly regardless of whether or not the fuel meets the definition of natural gas under Subpart GG.

In accordance with 40 CFR 60.334(h)(4), for an affected facility constructed, reconstructed, or modified before July 8, 2004 for which a custom fuel monitoring schedule has previously been approved, the Permittee 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 (5/8/96) and Alternate H₂S Sampling Method (10/2/97) allowing the Permittee to determine the fuel sulfur content of the fuel gas at least monthly using ASTM D4810-88, ASTM D4913-89, or Gas Producer's Association (GPA) Method 2377-86.

For excess emissions and monitoring systems performance (EEMSP) reports and summary reports required under 40 CFR 60.7(c) and (d), the Permittee is required to report excess emissions for any period during which the sulfur content of the fuel being fired in the turbine exceeds 0.8 percent by weight. 40 CFR 60.334(j)(5) and 60.7(c) require EEMSP reporting 30 days after the end of each 6-month period. In accordance with 40 CFR 60.334(j), submission of EEMSP reports is not required if the Permittee demonstrates fuel meets the definition of natural gas in 40 CFR 60.331(u) and does not periodically determine the fuel sulfur content.

Condition 28, 40 CFR 61 Subpart A & M Requirements

Legal Basis: The requirements of 40 CFR 61 are applicable requirements for Title V permitting purposes, as stated in item 4 of the "applicable requirement" definition under 40 CFR 71.2. The condition requires the Permittee to comply with asbestos demolition or renovation requirements in 40 CFR 61, Subpart M, as adopted by reference under 18 AAC 50.040(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 29, 40 CFR 63 Subpart A Requirements

Legal Basis: The Permittee must comply with applicable National Emission Standards for Hazardous Air Pollutants (NESHAP). NESHAP requirements are included in the "applicable requirement" definition under 40 CFR 71.2, which has been adopted by the Department under 18 AAC 50.040(j)(1).

The Permittee must comply with 40 CFR 63 Subpart A if the stationary source is subject to the requirements of another subpart under 40 CFR 63.

Factual Basis: Subpart A contains general requirements applicable to all facilities and emissions units subject to NESHAP requirements.

Condition 30, 40 CFR 63 Subpart ZZZZ Requirements

Legal Basis: The Department has incorporated by reference the NESHAP requirements for specific industrial activities, as listed in 18 AAC 50.040(c). NESHAP Subpart ZZZZ applies to owners and operators of any existing, new, or reconstructed stationary reciprocating internal combustion engines (RICE) located at major and area sources of HAP emissions. Central Power Station is an area source that contains RICE units.

Factual Basis: Emergency stationary CI RICE, EU IDs 13b and 14a, and black start engines, EU IDs 15 through 18, located at area sources of HAP are not subject to the numerical CO emission limitations, but are subject to the work and management practice standards specified in Table 2d, Item 4 of Subpart ZZZZ. For the emergency engines, the Permittee is required to install a non-resettable hour meter in each unit for accurate recording and monitoring to demonstrate compliance with the management practice and operational hour requirements. Each emergency engine is allowed to operate up to 100 hours per calendar year for maintenance checks and readiness testing unless federal, state, or local standards require beyond 100 hours per year for the same purpose. The Permittee is also allowed to operate the emergency RICE in non-emergency situations for up to 50 hours per calendar year under 40 CFR 63.6640(f). The 50 hours allowed for non-emergency situations are counted towards the 100 hours per year provided for maintenance and testing. There is no time limit on the use of emergency stationary RICE in emergency situations. If any emergency engine fails to meet the criteria for an emergency engine, as defined in 40 CFR 63.6675, the emissions unit must meet all applicable requirements for non-emergency engines.

The Permittee must comply with the recordkeeping requirements of 40 CFR 63.6655(e) and 40 CFR 63.6660. The Permittee is also required to include reports of deviations from NESHAP Subpart ZZZZ requirements with the facility operating reports, in accordance with 40 CFR 63.6650(f). Under 40 CFR 63.6645(a)(5), initial notification is not required for existing stationary CI RICE that are not subject to any numerical emission standards. In addition, fuel requirements under 40 CFR 63.6604 do not apply because EU IDs 15 through 18 are black start engines and EU IDs 13b and 14a do not operate nor are they contractually obligated to be available for more than 15 hours per calendar year for the purposes specified in 40 CFR 63.6640(f)(2)(ii) and (iii) and they do not operate for the purpose specified in 40 CFR 63.6640(f)(4)(ii).

Conditions 31 through 33, 40 CFR 82 Subpart F, G, & H Requirements

Legal Basis: The requirements of 40 CFR 82 are applicable requirements for Title V permitting purposes, as stated in item 12 of the “applicable requirement” definition under 40 CFR 71.2. Condition 31 requires compliance with the applicable requirements in 40 CFR 82, as adopted by reference under 18 AAC 50.040(d). The requirements apply 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 in 40 CFR 82, Subpart F.

Conditions 32 and 33 also require compliance with the applicable requirement adopted under 18 AAC 50.040(d). Condition 32 prohibitions apply to all stationary sources that use substitutes for ozone-depleting compounds. Condition 33 prohibitions apply to all stationary sources that use halon for extinguishing fires and inert gas to reduce explosion risk. These conditions prohibit the Permittee from causing or allowing violations of these requirements. The stationary source uses halon and is therefore subject to the federal regulations for halon contained in 40 CFR 82 Subparts G and H.

Factual Basis: Because these regulations include adequate monitoring and reporting requirements and because the Permittee is not currently engaged in such activity, simply citing the regulatory requirements is sufficient to ensure compliance with this federal regulation. These conditions also incorporate applicable 40 CFR 82 requirements.

Conditions 34 through 36, NESHAP Applicability Determination Requirements

Legal Basis: These conditions require the Permittee to determine NESHAP rule applicability and require recordkeeping for those determinations and notifications as applicable.

Factual Basis: The Permittee has conducted an analysis of the stationary source and determined that it is not a major HAPs stationary source based on emissions. This condition requires the Permittee to notify the Administrator if the stationary source becomes an affected source subject to a standard promulgated by EPA under 40 CFR part 63 and to keep records of applicability determinations and make those records available to the Department. Notifications of construction are also required as applicable.

Conditions 37 through 39, Standard Terms and Conditions

Legal Basis: These are standard conditions required for all operating permits under 18 AAC 50.345(a) and (e) through (g). As stated in 18 AAC 50.326(j)(3), the standard permit conditions of 18 AAC 50.345 replace the provisions of 40 CFR 71.6(a)(5) through (7).

Factual Basis: These are standard conditions that are included in all operating permits.

Condition 40, Administration Fees

Legal Basis: This condition requires compliance with the applicable fee requirements in 18 AAC 50.400 through 403. Paying administration fees is required as part of obtaining and holding a permit with the Department or as a fee for a Department action. As stated in 18 AAC 50.326(j)(1), the provisions of 18 AAC 50.400 through 50.430 are applicable and 40 CFR 71.9 is not applicable.

Factual Basis: The regulations in 18 AAC 50.400 through 403 specify the amount, payment period, and the frequency of fees applicable to a permit action.

Conditions 41 and 42, Emission Fees

Legal Basis: These conditions require compliance with the applicable fee requirements in 18 AAC 50.410 through 50.420. The regulations specify the time period for the assessable emissions and the methods the Permittee may use to calculate assessable emissions. As stated in 18 AAC 50.326(j)(1), the provisions of 18 AAC 50.400 through 50.430 are applicable and 40 CFR 71.9 is not applicable.

Factual Basis: The Department used the language in SPC I, adopted by reference under 18 AAC 50.346(b), for the permit. These 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 the lesser of the stationary source's potential or projected emissions of each air pollutant (AS 46.14.250(h)(1)). The conditions allow the Permittee to calculate assessable emissions based on previous actual annual emissions. According to AS 46.14.250(h)(1), assessable emissions are based on each air pollutant. Therefore, fees shall be paid on any pollutant emitted whether or not the permit contains any limitation for that pollutant.

This standard condition specifies that, unless otherwise approved by the Department, calculations of assessable emissions based on actual emissions must be for the previous calendar year. 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 43, Good Air Pollution Control Practice

Legal Basis: This condition requires compliance with the requirements in 18 AAC 50.346(b)(5) and applies to all emissions units, **except** those subject to an emission standard in 40 CFR 60, 61, or 63 (EU IDs 1, 2, 13b, 14a, and 15 through 18), those subject to continuous emission or parametric monitoring requirements, and insignificant emissions units.

Factual Basis: The condition requires the Permittee to comply with good air pollution control practices. The Department adopted this condition under 18 AAC 50.346(b) as SPC VI pursuant to AS 46.14.010(e). Records kept for units previously subject to this requirement need to be maintained for 5 years even if a unit is no longer subject to this condition.

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 an adequate maintenance schedule is not maintained.

Condition 44, Dilution

Legal Basis: 18 AAC 50.045 is included in the SIP approved by EPA. It is therefore an applicable requirement, per 40 CFR 71.2. This condition reiterates 18 AAC 50.045(a), which prohibits the Permittee from using dilution as an emission control strategy.

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

Condition 45, Reasonable Precautions to Prevent Fugitive Dust

Legal Basis: This condition reiterates 18 AAC 50.045(d), which requires a person to use reasonable precautions when handling, storing or transporting bulk materials or engaging in an industrial activity. This requirement applies because the Permittee has an emission unit or activity listed under Table 7 of 18 AAC 50.346(c). 18 AAC 50.045 is included in the SIP approved by EPA. The listed emission units and activities in Table 7 are: coal-fired boilers; coal handling facilities; construction of gravel pads or roads that are part of a permitted stationary source or other construction that has the potential to generate fugitive dust that reaches ambient air; commercial/industrial/municipal solid waste, air curtain, and medical waste incinerators; sewage sludge incinerators not using wet methods to handle that ash; mines; urea manufacturing; soil remediation units; or dirt roads under the control of the operator with frequent vehicle traffic; and other emission units the Department finds are likely to generate fugitive dust.

Factual Basis: The Department used the language in Standard Permit Condition X for the permit. The condition requires the Permittee to take reasonable action to prevent particulate matter from being emitted into the ambient air in accordance with 18 AAC 50.045(d).

Condition 46, Stack Injection

Legal Basis: 18 AAC 50.055 is included in the SIP approved by EPA. It is therefore an applicable requirement per 40 CFR 71.2.

This condition requires 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 stacks of emissions units 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 47, Air Pollution Prohibited

Legal Basis: 18 AAC 50.110 is included in the SIP approved by EPA. It is therefore an applicable requirement per 40 CFR 71.2.

This condition requires compliance with 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. The Department also included permit conditions for MR&R as required by 40 CFR 71.6(a)(3) and 71.6(c)(1).

Factual Basis: The Department used the language in SPC II for the permit. This condition spells out how to monitor, record, and report prohibited air pollution. While the other permit conditions and emissions 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.

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 must submit copies of these records upon request of the Department.

Condition 48, Technology-Based Emission Standard

Legal Basis: The Permittee is required to take reasonable steps to minimize emissions if certain activities cause an exceedance of any technology-based emission standard in this permit. This condition requires compliance with the requirement in 18 AAC 50.235. Technology-Based Emission Standard requirements apply because the stationary source contains equipment subject to a technology-based emission standard, such as BACT, MACT, LAER, NSPS or any other similar standard for which the stringency of the standard is based on determinations of what is technologically feasible, considering relevant factors.

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 64. Excess emission reporting under Condition 64 requires information on the steps taken to minimize emissions.

Condition 49, Open Burning

Legal Basis: 18 AAC 50.065 is included in the SIP approved by EPA. The condition requires the Permittee to comply with the regulatory requirements in 18 AAC 50.065 when conducting open burning at the stationary source. The state open burning regulation in 18 AAC 50.065 applies to the Permittee if the Permittee conducts open burning at the stationary source.

Factual Basis: The Permittee may conduct open burning by following the provisions of 18 AAC 50.065 and by following the Department guidelines posted at the website

<http://dec.alaska.gov/air/air-permit/open-burn-application/>. The condition requires the Permittee to keep records to demonstrate compliance with the standards for conducting open burning.

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.

Condition 50, Requested Source Tests

Legal Basis: The Permittee is required to conduct source tests as requested by the Department. This requirement is under 18 AAC 50.220(a) and 50.345(k), which are included in the SIP approved by EPA.

Factual Basis: This condition applies because this is a standard condition to be included in all operating permits, as specified in 18 AAC 50.345(a).

Conditions 51 through 53, Operating Conditions, Reference Test Methods, Excess Air Requirements

Legal Basis: Conditions 51 and 53 require compliance with the applicable requirements in 18 AAC 50.220(b) and (c)(3), which are included in the SIP approved by EPA. Condition 52 specifies source test methods, as required by 40 CFR 71.6(a)(3)(i) and 71.6(c)(1). These requirements apply because the Permittee is required by the permit to conduct source tests, or a source test may be requested by the Department. The Permittee is required to conduct source tests in the manner set out in Conditions 51 through 53.

Factual Basis: These conditions supplement the specific monitoring requirements stated elsewhere in this permit.

Condition 54, Test Exemption

Legal Basis: This condition incorporates the source test exemption in 18 AAC 50.345(a) regarding visible emissions observations. 18 AAC 50.345(a) is included in the SIP approved by EPA.

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 55 through 58, Test Deadline Extension, Test Plans, Notifications and Reports

Legal Basis: These conditions require compliance with the applicable requirements in 18 AAC 50.345(m) through (o), which are included in the SIP approved by EPA. Condition 55 contains the requirement in 18 AAC 50.345(l). The requirements in 18 AAC 50.345(l) through (o) constitute standard conditions that must be included in each operating permit, as specified in 18 AAC 345(a). These requirements apply because the Permittee is required to conduct source tests as set out by this permit or as requested by the Department.

Factual Basis: These standard conditions supplement specific monitoring requirements stated elsewhere in this permit.

Condition 59, Particulate Matter Calculations

Legal Basis: This condition requires the Permittee to reduce particulate matter data in accordance with 18 AAC 50.220(f), which is included in the SIP approved by EPA. It applies when the Permittee tests for compliance with the particulate matter standard in 18 AAC 50.055.

Factual Basis: The condition incorporates a regulatory requirement for particulate matter source tests. This condition supplements specific monitoring requirements stated elsewhere in this permit.

Condition 60, Recordkeeping Requirements

Legal Basis: This condition requires the Permittee to keep records in accordance with 40 CFR 71.6(a)(3)(ii), which the Department adopted by reference under 18 AAC 50.040(j)(4).

Factual Basis: The condition restates the regulatory requirements for recordkeeping, and supplements the recordkeeping defined for specific conditions in the permit. 40 CFR 71.6(a)(3)(ii) requires at least five years of records retention.

Condition 61, Certification

Legal Basis: All operating permits must contain a requirement to certify any permit application, report, affirmation, or compliance certification, per 18 AAC 50.345(j) and 18 AAC 50.205. Both requirements are part of the SIP approved by EPA.

Factual Basis: The Department used the language in SPC XVII, adopted by reference under 18 AAC 50.346(b)(10), for the permit condition. The requirement in 18 AAC 50.345(j) is a standard condition that must be included in each operating permit, as specified in 18 AAC 50.345(a). 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, even though it must still be submitted more frequently than the stationary source operating report. This condition supplements the reporting requirements of this permit. The certification statement through electronic signature and options for submittal provide paperless options for reporting without compelling Permittees to any specific means of submission.

Condition 62, Submittals

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

Factual Basis: The Department used the language in SPC XVII, adopted by reference under 18 AAC 50.346(b)(10), for the permit condition. This condition lists the Department's appropriate address for reports and written notices. The Permittee is required to submit reports, compliance certifications, and other submittals required by this permit, either electronically or by hard copy. This condition supplements the standard reporting and notification requirements of this permit. The condition also directs the Permittee to refer to the submission instructions on the Department's Standard Permit Conditions webpage for additional information regarding document submittals (e.g., the appropriate Department address).

Condition 63, Information Requests

Legal Basis: All operating permits must include a condition that requires the Permittee to furnish certain information upon request, per 18 AAC 50.345(i). The requirement is part of the SIP approved by EPA.

Factual Basis: The requirement in 18 AAC 50.345(i) is a standard condition that must be included in each operating permit, as specified in 18 AAC 50.345(a). This condition requires the Permittee to submit information requested by the Department.

Condition 64, Excess Emission and Permit Deviation Reports

Legal Basis: This condition requires the Permittee to comply with the requirements in 18 AAC 50.235(a)(2) and 18 AAC 50.240(c). The condition specifies reporting requirements as required by 40 CFR 71.6(a)(3)(iii) and 71.6(c)(1). 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 used the language in SPC III for the permit condition. The Department used the notification form in SPC IV for the notification requirements.

The Department has modified this condition and the Notification Form to reflect the electronic submittal requirements in 18 AAC 50.270.

Condition 65, Operating Reports

Legal Basis: This condition requires compliance with the requirement in 18 AAC 50.346(b)(6). The condition specifies reporting requirements as required by 40 CFR 71.6(a)(3)(iii)(A), which the Department has adopted by reference under 18 AAC 50.040(j)(4).

Factual Basis: The Department used the language in SPC VII for the permit condition. The condition restates the requirements for reports listed in regulation. The condition supplements the specific reporting requirements elsewhere in the permit.

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

The Permittee requested quarterly reporting rather than semiannual. Since the Permittee is reporting more frequently than required, the Department is allowing 45 days to submit the reports rather than 30 days.

Condition 66, Annual Compliance Certification

Legal Basis: This condition requires compliance with the requirements in 40 CFR 71.6(c)(5), which the Department adopted by reference under 18 AAC 50.040(j).

Factual Basis: This condition specifies the periodic compliance certification requirements, and specifies a due date for the annual compliance certification.

Condition 66.2 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 annual compliance certification report. The Permittee may submit the required report electronically at their discretion.

Condition 67, Emission Inventory Reporting

Legal Basis: This condition requires the Permittee to submit emissions data to the state so the state is able to satisfy the federal requirement to submit emission inventory data from point sources to the EPA as required under 40 CFR 51.15 and 51.321. The emission inventory requirement applies to sources defined as point sources in 40 CFR 51.50. The

state must report emissions data as described in 40 CFR 51.15 and the data elements in Tables 2a and 2b to Appendix A of 40 CFR 51 Subpart A to EPA.

Factual Basis: The Department used the language in SPC XV, as adopted by reference under 18 AAC 50.346(b)(8), for the permit condition. The emission inventory data is due to EPA 12 months after the end of the reporting year (40 CFR 51.30(a)(1) and (b)(1)). Permittees have until April 30th to compile and submit the data to the Department. To expedite the Department's process of transferring data into EPA's electronic reporting system, the Department encourages Permittees to submit the emission inventory through the Department's electronic emission inventory submission system in the Permittee Portal on the Department's Air Online Services webpage. A myAlaska account and profile are needed to gain access to the Permittee Portal. Other options are to submit the emission inventory via mail, email, or fax. Detailed instructions on completing and submitting the emission inventory and the report form are available at the Point Source Emission Inventory webpage by clicking the Emission Inventory Instructions button. The emission inventory instructions and report form may also be obtained by contacting the Department.

To ensure that the Department's electronic system reports complete information to the National Emissions Inventory, Title V stationary sources are required to submit with each report emissions data described in 40 CFR 51.15 and the data elements in Tables 2a and 2b to Appendix A of 40 CFR 51 Subpart A, as applicable. Title V stationary sources with potential annual emissions greater than or equal to any of the emission thresholds for Type A (large) sources, as listed in Table 1 to Appendix A of 40 CFR 51 Subpart A, are required to report emission inventory data every year for the previous calendar year (also known as the inventory year). For triennial inventory years, Type A sources only need to submit one report, not both an annual report and a separate triennial report.

Title V stationary sources with potential annual emissions greater than or equal to any of the emission thresholds for Type B (small) sources, as listed in Table 1 to Appendix A of 40 CFR 51 Subpart A, are required to report emission inventory data every third year (i.e., triennially) for the previous inventory year. The emission thresholds for nonattainment areas vary depending on the nonattainment status of the area. As of June 9, 2017, Fairbanks and North Pole urban area have been designated by the federal administrator as "serious nonattainment" for PM_{2.5}.

As of the issue date of this permit, the stationary source is a Type A stationary source.

Condition 68, Consistency of Reporting Methodologies

Legal Basis: These conditions are from 18 AAC 50.275 and 18 AAC 50.275 is included in the SIP approved by EPA. It is therefore an applicable requirement under 40 CFR 71.2.

Factual Basis: 18 AAC 50.275(a) requires all stationary sources to report actual emissions for the purpose of the federal emissions inventory and 18 AAC 50.275(b) requires consistent emission factors and calculation methods for reporting actual or assessable emissions for the stationary source.

Condition 69, NSPS and NESHAP Reports and Waivers

Legal Basis: The Permittee is required to provide the Federal Administrator and Department a copy of each emissions unit report for units subject to NSPS or NESHAP federal regulations under 18 AAC 50.326(j)(4). 40 CFR 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 CFR 60, 40 CFR 61, and 40 CFR 63.

Condition 70, Permit Applications and Submittals

Legal Basis: 40 CFR 71.10(d)(1), adopted by the Department under 18 AAC 50.040(j)(7), requires submission of a copy of each permit application to EPA.

Factual Basis: The Department used the language in SPC XIV for the permit condition. The condition 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 with 40 CFR 71.10(d)(1) from the Department to the Permittee as allowed under 40 CFR 71.10(d)(1).

Conditions 71 through 73, Permit Changes and Revisions Requirements

Legal Basis: 40 CFR 71.6(a)(8), (12), and (13) incorporated by reference under 18 AAC 50.040(j) require that these provisions be included in operating permits.

Factual Basis: 40 CFR 71.6(a)(12) and (13) specify changes that may be made without a permit revision, and 40 CFR 71.6(a)(8) states permit revisions are not required for some emissions trading and similar programs.

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

Condition 74, 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. The obligations for a timely and complete operating permit application are in 40 CFR 71.5(a) through (c), adopted by reference in 18 AAC 50.040(j)(3), and 18 AAC 50.326(c).

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 CFR 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 CFR 71.5(a)(2), a complete renewal application is one

that provides all information required pursuant to 40 CFR 71.5(c) and remits payment of fees owed under the fee schedule established pursuant to 18 AAC 50.400. 40 CFR 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, as long as an application has been submitted within the timeframe specified under 40 CFR 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.

Conditions 75 through 80, General Compliance Requirements and Schedule

Legal Basis: These conditions require compliance with the applicable requirements in 18 AAC 50.345(b) through (d) and (h) and 40 CFR 71.6(c)(3). As stated in 18 AAC 50.345(a), the requirements in 18 AAC 50.345(b) through (d) and (h) are standard conditions that must be included in all operating permits issued by the Department.

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

Conditions 81 and 82, Permit Shield

Legal Basis: These conditions require compliance with the requirements in 40 CFR 71.6(f), which the Department has adopted by reference under 18 AAC 50.040(j)(4). These requirements apply because the Permittee has requested that the Department shield the stationary source from specific non-applicable requirements listed under this condition.

Factual Basis: Table B of Operating Permit No. AQ0186TVP04 shows the permit shield 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 E - Permit Shields Denied

Shield Requested for:	Reason for Shield Request:	Reason for Denial
40 CFR 68 - Accidental Release Prevention Requirements: Risk Management Programs [§112(r)]	Under 40 CFR 68.10(a), the chemical accident prevention provisions of Part 68 do not apply to stationary sources with less than threshold quantities of regulated substances in a process.	This may be a true statement, but it does not clearly explain why this stationary source is not subject to the requirements of 40 CFR 68.
40 CFR 82.60 Subpart C	Stationary source is not a manufacturer or distributor of Class I and II products or substances.	A shield is not necessary for requirements that are clearly not applicable.

Shield Requested for:	Reason for Shield Request:	Reason for Denial
40 CFR 82.80 Subpart D	Subpart applies only to Federal departments, agencies, and instrumentalities.	A shield is not necessary for requirements that are clearly not applicable.
40 CFR 82.100 Subpart E	Stationary source is not a manufacturer or distributor of Class I and II products or substances.	40 CFR 82.100 does not contain any specific requirements. It simply states the purpose of the subpart.
40 CFR 82.158 Subpart F	Stationary source does not manufacture or import recovery and recycling equipment.	Under 40 CFR 82.150(b), the subpart applies to any person maintaining, servicing, or repairing appliances containing class I, class II or non-exempt substitute refrigerants. Additionally, 40 CFR 82.158(b) does not apply only to sources that manufacture or import recovery and recycling equipment.
40 CFR 82.160 Subpart F	Stationary source does not contract equipment testing organizations to certify recovery and recycling equipment.	A shield is not necessary for requirements that are clearly not applicable.
40 CFR 82, Subpart F, Appendix C	Stationary source is not a third party entity that certifies recovery equipment.	This is the Recovery Efficiency Test Procedure for Refrigerant Recovery Equipment Used on Small Appliances, not a requirement.
40 CFR 82, Subpart F, Appendix D	Stationary source does not have a technician certification program.	A shield is not necessary for requirements that are clearly not applicable.
40 CFR 82.174(a) Subpart G	Stationary source does not manufacture substitute chemicals or products for ozone-depleting compounds.	A shield is not necessary for requirements that are clearly not applicable.
40 CFR 82.270(a) Subpart H	Stationary source does not manufacture halon.	A shield is not necessary for requirements that are clearly not applicable.
EU IDs 1 and 2: 40 CFR 60.7(a)(1) & (3) (Initial Notification Only)	Initial notifications completed as required.	A shield is not necessary for requirements with previous compliance demonstrations.
EU IDs 1 and 2: 40 CFR 60.8(a) (Initial Performance Test Only)	Initial performance tests completed as required.	
EU IDs 1 and 2: 40 CFR 60.7(a)(4)	This requirement only applies to "existing facilities," as defined in 40 CFR 60.2.	For the purposes of 40 CFR 60 Subpart KKKK, these units are existing facilities.
EU IDs 13b and 14a: 40 CFR 63.6645(f)	The stationary source is not a major source of HAP emissions.	This requirement does not apply to only major sources.
Portable IEU Heaters: 40 CFR 63 Subpart DDDDD	Stationary source is not a major source of HAP.	The portable insignificant unit heaters are not listed in the permit. Therefore, a

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Portable IEU Heaters: 40 CFR 63 Subpart JJJJJ	These emissions units: 1) are not <i>boilers</i> as defined in 40 CFR 63.11237; or 2) are <i>temporary boilers</i> or <i>hot water heaters</i> as defined in 40 CFR 63.11237. Units that fit these classifications are exempt from this rule per 40 CFR 63.11195(f) & (h).	permit shield is not necessary. If these requirements were applicable, these units would be listed in the permit and the requirements would be included in the permit.
Non-Road Engines: 40 CFR 60 Subpart IIII	This rule applies to stationary engines (see 40 CFR 60.4200(a)). These engines do not meet the definition of stationary internal combustion engines as provided in the rule.	The non-road engines are not listed in the permit. Therefore, a permit shield is not necessary. If these requirements were applicable, these units would be listed in the permit and the requirements would be included in the permit.
Non-Road Engines: 40 CFR 63 Subpart ZZZZ	This rule applies to stationary engines (see 40 CFR 63.6585(a)). These engines do not meet the definition of stationary internal combustion engines as provided in the rule.	
Storage Tank IEUs: 40 CFR 60 Subpart K	Vessel storage capacity below threshold (40,000 gallons).	The tanks are not listed in the permit. Therefore, a permit shield is not necessary. If these requirements were applicable, these units would be listed in the permit and the requirements would be included in the permit.
Storage Tank IEUs: 40 CFR 60 Subpart Ka	Vessel storage capacity below threshold (40,000 gallons); and commenced construction prior to effective date of subpart.	
Storage Tank IEUs: 40 CFR 60 Subpart Kb	Vessel commenced construction prior to effective date of subpart.	