

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

June 5, 2023

**City and Borough of Sitka, Electric Department (CBS)
Jarvis Street Diesel Plant**

**STATEMENT OF BASIS
for the terms and conditions of
Permit No. AQ0014TVP03**

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INTRODUCTION

This document sets forth the statement of basis for the terms and conditions of Operating Permit No. AQ0014TVP03.

STATIONARY SOURCE IDENTIFICATION

Section 1 of Operating Permit No. AQ0014TVP03 contains information on the stationary source as provided in the Title V permit application.

The Jarvis Street Diesel Plant is owned and operated by the City and Borough of Sitka, Electric Department (CBS) and the City and Borough of Sitka, Electric Department (CBS) is the Permittee for the stationary source's operating permit. The SIC code for this stationary source is 4911 - Electrical Services.

The CBS is a small public electric utility that provides all electric power generation, transmission, and distribution within the City and Borough of Sitka, Alaska. The primary source of power are two hydroelectric plants with a combined maximum output of 32 MW. CBS also operates the standby Jarvis Street Diesel Plant to provide supplemental power to the community if there is insufficient hydroelectric power available. The Jarvis Street Diesel Plant consists of four diesel reciprocating internal combustion engines (RICE) (2 MW, 2.5 MW, 2.5 MW and 4.8 MW), one diesel fuel-fired turbine (16 MW), and three diesel bulk storage tanks. Each generating unit operates independently and exhausts through its own stack. The generating units are fueled with ultra-low sulfur diesel fuel (No. 2). The fuel storage tanks are deemed insignificant.

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 C.F.R. 71.5(c)(3).

The emissions units at the Jarvis Street Diesel Plant that have specific monitoring, recordkeeping, and reporting requirements are listed in Table A of Operating Permit No. AQ0014TVP03. Table A of Operating Permit No. AQ0014TVP03 contains information on the emissions units regulated by this 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 from the Jarvis Street Diesel Plant as indicated in the application for Operating Permit No. AQ0014TVP02² submitted by the Permittee 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).

² The Permittee had initially submitted a different set of PTEs in their application for Operating Permit No. AQ0014TVP03. In an email (2/16/2023), the Permittee indicated that it was not their intention to indicate any changes to the source's PTE. They stated that they believed it was appropriate to use the same PTEs from Operating Permit No. AQ0014TVP02.

Table D - Emissions Summary, in Tons Per Year (TPY)⁴

Emissions	NO _x	CO	PM ₁₀	SO ₂	VOC	CO _{2e} ¹	HAPs ³	Total ²
PTE	249.90	57.28	8.06	2.20	24.09	114,903.16	1.96	341.52
Assessable PTE	249.90	57.28	8.06	2.20	24.09	114,903.16	1.96	341.52

Notes:

1. CO_{2e} 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 CO_{2e} and HAPs.
3. HAP emissions are a subset of either VOC emissions or PM₁₀ emissions and are excluded from the assessable emissions total to avoid double counting.
4. There have been no changes on the stationary source's emissions units, operations, nor emissions limits since Title V permit renewal application for AQ0014TVP02, therefore, Table D shows the same PTE as submitted for Permit AQ0014TVP02.

The assessable PTE listed under Condition 36.1 is the sum of the PTE of each individual air pollutant, other than greenhouse gases (GHGs). The emissions listed in Table D are estimates that are for informational use only. The listing of the emissions does not create an enforceable limit for the stationary source.

For criteria pollutants, potential emissions are as provided in the application for Operating Permit No. AQ0014TVP02, as follows: NO_x potential emissions are set at the stationary source's capped NO_x owner requested limit (ORL) of 249.9 TPY. Potential emissions for all other criteria pollutants are based on individual unit's highest possible annual fuel consumption (or operational hours) that provides the estimate of potential emissions equivalent to but no more than the 249.9 TPY NO_x limit. Emission factors used for calculating NO_x, CO, PM₁₀, and VOC potential emissions are based on vendor provided emission factors or AP-42 emission factors current as of the date of the permit application submittal. SO₂ potential emissions were calculated based on mass balance and the diesel fuel sulfur content limit of 0.0036 percent by weight. Potential emissions for HAPs and GHG pollutants were calculated using the worst-case fuel consumption combination scenario for emissions units that would be equivalent to the capped NO_x limit of 249.9 TPY (i.e., year-round operations for EU ID 5 combined with 135 hours per year operations for EU ID 4). Potential GHG emissions were calculated using emission factors found in 40 C.F.R. 98, Subpart C, Tables C-1 and C-2. Potential HAPs emissions were estimated using emission factors from Maine Department of Environmental Protection's *Default Emission Factors for Calculating Hazardous Air Pollutants from Combustion of Distillate Fuel Oil*, as reported in CBS letter "Response to Completeness Items AQ0014MSS01P" to the Department in May 2013. Each individual HAP has a PTE less than 10 TPY with highest individual HAP (Benzene) at 0.67 TPY. The aggregated HAPs total is 1.96 TPY. Based on these results, Jarvis Street Diesel Plant is not a major source of HAPs emissions since HAP emissions are less than the triggers of 10/25 TPY.

BASIS FOR REQUIRING AN OPERATING PERMIT

In accordance with AS 46.14.130(b), an owner or operator of a Title V source³ 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 the following categories of sources that require an operating permit:

³ Title V source means a stationary source classified as needing a permit under AS 46.14.130(b) [ref. 18 AAC 50.990(111)].

- 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 CAA;
- Another stationary source designated by the Federal Administrator by regulation.

The Permittee is required to obtain an operating permit for the Jarvis Street Diesel Plant as specified under 18 AAC 50.326(a) and 40 C.F.R. 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 CAA, it directly emits, or has the potential to emit, 100 TPY or more of any air pollutant subject to regulation; and
- A source, including an area source, subject to a standard, limitation or other requirement under Section 111 of the Act (NSPS) not exempted or deferred under AS 46.14.120(e) or (f);

AIR QUALITY PERMITS

Permits to Operate

No previous air quality control permit-to-operate exists for this stationary source.

Pre-Approved Emission Limit (PAEL)

The Jarvis Street Diesel Plant initially operated under Pre-Approved Emission Limit (PAEL) No. AQ0014PL201, issued September 24, 1997, which limited the stationary source to burning no more than 327,000 gallons of fuel in any consecutive 12-month period. The PAEL enabled the stationary source to avoid the need for a Title V permit.

Owner Requested Limit (ORL)

The Department issued ORL No. AQ0014ORL01 to the stationary source on March 27, 2010, to replace the PAEL. The ORL included an emission limit of 99 TPY NO_x and enabled the stationary source to avoid the need for a Title V permit.

Title I (Construction and Minor) Permits

Minor Permit No. AQ0014MSS01. The Department issued Minor Permit No. AQ0014MSS01 to this stationary source on April 20, 2012, which rescinded and replaced ORL No. AQ0014ORL01. The minor permit was issued to establish an ORL to avoid prevention of significant deterioration (PSD) classification. Because the stationary source has emissions above the Title V permitting threshold of 100 TPY, the Department required a Title V operating permit application within one year of beginning operation under Minor Permit No. AQ0014MSS01.

Minor Permit No. AQ0014MSS02. The Department issued Minor Permit No. AQ0014MSS02 to the stationary source on September 25, 2013, which rescinded and replaced Minor Permit No. AQ0014MSS01. Minor Permit No. AQ0014MSS02 was issued to authorize the installation and operation of a 16,045 kW Solar turbine (EU ID 5), include the turbine NO_x emissions in the existing source-wide 249.9 TPY NO_x ORL and revise the associated monitoring, recordkeeping, and reporting (MR&R) requirements, and limit stationary source-wide fuel consumption to 8.8 million gallons per year.

Minor Permit No. AQ0014MSS03. The Department issued Minor Permit No. AQ0014MSS03 to the stationary source on September 12, 2018, which revised Minor Permit No. AQ0014MSS02. Minor Permit No. AQ0014MSS03 was issued to rescind Condition 9 of Minor Permit No. AQ0014MSS02 that allowed avoidance from PSD major classification for GHGs of the stationary source. This permit has also rescinded and replaced Footnote 2 to Condition 10.7b and Condition 10.8b of Minor Permit No. AQ0014MSS02. The revisions processed under this minor permit were carried over into the renewal Title V Operating Permit No. AQ0014TVP02, using the integrated review procedures described in 18 AAC 50.326(c)(1).

All stationary source-specific requirements that are still in effect and established in Minor Permit Nos. AQ0014MSS02 and AQ0014MSS03 are included in this renewal operating permit as described in Table E and Table F.

Title V Operating Permits

Under AS 46.14.190, the owner or operator has requested multiple operating permits for this stationary source.

Permit No. AQ0014TVP01. The Department received an initial Title V permit application on February 15, 2013. The application was deemed complete upon receipt. The Department requested supplementary information on April 30, 2013, and received the supplementary information for the Title V application on May 13, 2013. The Department issued the initial Title V Operating Permit No. AQ0014TVP01 on December 4, 2013.

- Revision No. 1. Revision 1 to Title V Permit No. AQ0014TVP01 was issued on March 19, 2015. This was an administrative revision to correct the Emission Inventory Reporting timeline error Condition 63.1.

Permit No. AQ0014TVP02. The Department received an application to renew Title V Operating Permit No. AQ0014TVP01 on June 1, 2018. The application was deemed complete on June 20, 2018. The Department issued the renewal Title V Operating Permit No. AQ0014TVP02 on November 13, 2018.

Permit No. AQ0014TVP03. The Department received an application to renew Title V Operating Permit No. AQ0014TVP02 on December 20, 2018.

COMPLIANCE HISTORY

The stationary source has operated at its current location since 1979. Review of the permit files for this stationary source, which includes the past inspection reports and compliance evaluations, indicates a stationary source generally operating in compliance with its operating permit, except for some procedural violations. These violations had been resolved accordingly. Following are non-compliance findings from Full Compliance Evaluation (FCE) reports during the last 5 years:

- On October 13, 2017, the Department finalized an off-site full compliance evaluation covering the period January 1, 2016 through September 30, 2017. The Department identified compliance issues with Conditions 24 through 27 and 59.1c of Operating Permit No. AQ0014TVP01 Rev. 1 due to failure to conduct annual fuel oil sampling on EU IDs 2, 3, and 4 on due dates required under NESHAP Subpart ZZZZ, as well as, due to failure to report the deviations on time as required by the permit. No action was required by the Department to address these violations other than an advisory that CBS must continue to follow all permit conditions.

- On June 28, 2021, the Department finalized a full compliance evaluation covering the period July 1, 2019 through June 31, 2021, with an on-site inspection conducted on May 20, 2021. The Department identified procedural violations due to late submittal of the operating report covering the period of July 1 through December 31, 2020. A Permit Deviation addressing the late submission was received by the Department on February 24, 2021, within the 30-day of discovery requirement per Condition 58.1.c.(i) of Operating Permit No. AQ0014TVP02. No further action was required by the Department.
- On June 1, 2023, the Department finalized a full compliance evaluation covering the period April 1, 2021 through December 31, 2022. The full compliance evaluation did not include an on-site inspection. The Department identified procedural violations due to late submittal of a summary report on January 28, 2022. The summary report was for the source testing of EU ID 5, as required under NSPS Subpart KKKK, that occurred on October 15, 2021. Additionally, the Permittee incorrectly certified continuous compliance with Condition 18 of Operating Permit No. AQ0014TVP02. No action was required by the Department to address these violations other than an advisory that CBS must continue to follow all permit conditions.

APPLICABLE REQUIREMENTS FROM PRECONSTRUCTION PERMITS

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

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

- Permit 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. AQ0014TVP03.

Table E and Table F below lists the requirements carried into Operating Permit No. AQ0014TVP03 to ensure compliance with the preconstruction permit requirements.

Table E - Comparison of Minor Permit No. AQ0014MSS02 Conditions to Operating Permit No. AQ0014TVP03 Conditions⁴

Permit No. AQ0014MSS02 Condition No.	Description of Requirement	Permit No. AQ0014TVP03 Condition No.	How Condition was Revised
Table 1	Emissions Unit Authorization	Table A	Added Serial Number and Manufacture/Install Date for EU ID 5
5	State visible emissions (VE) standard and MR&R (one-time VE test within 60 days of initial operation)	1-4	Same limit; replaced MR&R with standard VE MR&R conditions for liquid fuel-fired emissions units (SPC IX).
6	Particulate Matter (PM) state standard	5-8	Same limit; removed obsolete requirements for initial compliance; added standard MR&R conditions for diesel engines and turbines (SPC IX).
7	Sulfur Compound (SO ₂) state standard and MR&R	9 and 10	Same limit and same MR&R (streamlined by referencing Condition 11).
8	ORL for fuel sulfur content	11	Replaced “and” with “or” in Condition 11.1 to clarify that using only one of the applicable ASTM methods is necessary. Added Condition 11.2 to gap-fill the operating report requirement for compliance verification.
9	ORL for fuel consumption	None	Not carried forward, condition has been rescinded by Minor Permit No. AQ0014MSS03.
10	NO _x emissions ORL for EUs 1-5	12	Same limit. For consistency, changed “EU” to “EU ID” in all occurrences under this condition and sub-conditions. Added “rolling” before “12-consecutive-month” where appropriate, for clarity.
10.1-10.2c	NO _x emissions MR&R	12.1-12.3.c	Added Condition 12.1 to gap-fill fuel consumption monitoring and recordkeeping requirements for EU IDs 1-4 needed for NO _x emissions monitoring. This is necessary with the rescission of Condition 9 in Minor Permit No. AQ0014MSS02. Removed requirement to install a non-resettable fuel meter on EU ID 5 in Condition 12.3; already complete. Added Footnotes 6 and 7 to Conditions 12.1 and 12.3 to indicate that the initial requirements to install fuel flow meters has already been completed.

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

Permit No. AQ0014MSS02 Condition No.	Description of Requirement	Permit No. AQ0014TVP03 Condition No.	How Condition was Revised
			Added requirement to “maintain and operate” fuel flow meters under Conditions 12.1 and 12.3.
10.2d	At the end of each month, calculate and record fuel consumed by EU 5 during the month	12.3.d	Revised to require calculating and recording fuel use before the end of each month for the previous month . Corrected the typo error on the referenced condition – there is no Condition 10.1c in Minor Permit No. AQ0014MSS02.
10.3-10.4	Calculate and record the previous month’s and the 12 consecutive months’ NO _x emissions	12.4	Same requirements. Merged the conditions under Condition 12.4 to simplify and for better organization. Reworded Condition 12.4 to describe purpose of condition more clearly. Reworded description of calculating monthly NO _x emissions in Conditions 12.4.a and 12.4.b for clarity. Changed “monthly” to “monthly combined” in Condition 12.4.c to describe the NO _x emissions from EU IDs 1-5 in Condition 12.4.c for clarity.
10.5	Operating report requirement	12.5	Added monthly NO _x emissions to be included in the operating report; this will make it easier to track accuracy of reported rolling 12-consecutive-month emissions.
10.6	Excess emissions/permit deviation report requirement	12.6	Changed “permit deviation” to “excess emissions.” Exceeding the NO _x emissions ORL falls under “excess emissions” category.
10.7	NO _x source testing requirements for EU IDs 1-4	12.7	Same requirements. Added the subhead title “NO _x Source Testing Requirements” for clarity and readability.
10.8, 10.8a, and 10.8b	NO _x source testing requirements for EU ID 5	12.8	Conditions 10.8 and 10.8a of Minor Permit No. AQ0014MSS02 were not carried forward; one-time initial source test requirement is already completed. Added footnote 8 to indicate completion of this requirement. Carried forward Minor Permit No. AQ0014MSS02 Condition 10.8b as revised in Minor Permit No. AQ0014MSS03, i.e., revised source testing frequency from “within 5 years” to “within 12 months of exceeding 500 hours of operation in any 60- consecutive-month period” and added an option to conduct source testing in conjunction with NSPS Subpart KKKK source testing.
Footnote 2 to Condition 10.7b	Operational hours equivalent to 50,000	Footnote 10 to Condition 12.7	Carried forward as revised in Minor Permit No. AQ0014MSS03.

Permit No. AQ0014MSS02 Condition No.	Description of Requirement	Permit No. AQ0014TVP03 Condition No.	How Condition was Revised
	gallons of fuel consumed		
10.9	Calculate and report NO _x emissions using the emission factors determined in the source tests.	12.9	Replaced “calculate” with “recalculate” to emphasize that the emissions are being recalculated with new emission factors determined in source tests described in Conditions 12.7.a, 12.7.b, and 12.8. Replaced “12 consecutive month NO _x emissions” in Condition 10.9 of Minor Permit No. AQ0014MSS02 to “rolling 12-consecutive-month combined NO _x emissions from EU IDs 1-5 in tons” to be specific and clear.

Table F - Comparison of Minor Permit No. AQ0014MSS03 Conditions to Operating Permit No. AQ0014TVP03 Conditions⁵

Permit No. AQ0014MSS03 Condition No.	Description of Requirement	Permit No. AQ0014TVP03 Condition No.	How Condition was Revised
1	Rescind Condition 9 of Minor Permit No. AQ0014MSS02 (pertaining to avoidance of PSD major classification for GHGs)	None	Not carried forward; condition authorizes rescission of an obsolete ORL.
2	Revise Footnote 2 to Condition 10.7b of Minor Permit No. AQ0014MSS02	Footnote 10 to Condition 12.7	No change
3	NO _x periodic source testing requirements for EU ID 5	12.8	Same requirements. Added references to Table B and Section 6 in Conditions 12.8 and 12.8.b, respectively, to be specific and clear.

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

NON-APPLICABLE REQUIREMENTS

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

- **40 C.F.R. 82.270(A) – (F), Subpart H:** The stationary source does not manufacture halon. CO₂ is used for fire suppression at this stationary source, and not halon. All handheld extinguishers are either filled with an EPA-approved halon substitute or are standard ABC extinguishers.
- **NSPS Subpart IIII:** The four diesel generators (EU IDs 1-4) at the stationary source are not subject to 40 C.F.R. 60, Subpart A and Subpart IIII because they were installed before the applicability date July 11, 2005.
- **NSPS Subparts K, Ka, and Kb:** The stationary source contains several insignificant diesel fuel storage tanks. Except for Tanks 100, 101, and 102, the capacities of the tanks are below the size threshold for Subparts K, Ka, and Kb. Tanks 100, 101, and 102 are not subject to Subparts K, Ka, and Kb because the vapor pressure of diesel fuel is below the thresholds in these rules and/or the tanks were constructed outside the effective date of the rule.
- **Compliance Assurance Monitoring (CAM) (40 C.F.R 64):** The stationary source does not use a control device to achieve compliance with an emission limitation or standard. Therefore, it does not satisfy the criteria of 40 C.F.R. 64.2(a)(2) and is not subject to CAM.
- **Risk Management Plan (40 C.F.R. 68):** The stationary source is not subject to the general duty clause under the Clean Air Act Section 112(r)(1) (40 C.F.R. 68.10) because it does not process or store regulated flammable or toxic substances in excess of threshold quantities in a process as determined in §68.115.

STATEMENT OF BASIS FOR THE PERMIT CONDITIONS

The Department adopted regulations from 40 C.F.R. 71, as specified in 18 AAC 50.040(j), to establish operating permit regulations. The EPA fully approved the Alaska Operating Permit Program on November 30, 2001, as noted in Appendix A to 40 C.F.R. 70. This Statement of Basis, required under 40 C.F.R. 71.11(b), provides the legal and factual basis for each condition of Operating Permit No. AQ0014TVP03. Additionally, and as required by 40 C.F.R. 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 1-5 are fuel-burning equipment.

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

Factual Basis: Condition 1 prohibits the Permittee from causing or allowing visible emissions in excess of the applicable standard in 18 AAC 50.055(a)(1). MR&R requirements are listed in Conditions 2 through 4 of the permit. These conditions have been adopted into regulation as Standard Permit Condition (SPC) IX – Visible Emissions and Particulate Matter Monitoring Plan for Liquid Fuel-Burning Equipment and Flares.

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

The Permittee must establish by visual observations of emissions unit exhaust, 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 emission standards for visible emissions.

These conditions detail a stepwise process for monitoring to determine compliance with the state's visible emissions standard for liquid fuel-burning equipment. Equipment types covered by these conditions are stationary 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 either through maintenance programs and/or more rigorous tests that will quantify whether a specific emission standard has been exceeded.

Liquid Fuel- Burning Equipment:

Monitoring – The emissions unit exhaust must be observed by either the Method 9 Plan or the Smoke/No Smoke Plan as detailed in Condition 2. Corrective actions such as maintenance

procedures or more frequent observations may be required depending on the results of the observations.

Recordkeeping - The Permittee is required to record the results of all observations of emissions unit exhaust 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, PM 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 1-5 are fuel-burning equipment.

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

Factual Basis: Condition 5 prohibits emissions in excess of the applicable state PM standard. MR&R requirements are listed in Conditions 6 through 8 of the permit. These conditions have been adopted into regulation as SPC IX.

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

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 PM.

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 corresponds to 16.8 % opacity
- For stacks normalized to 10 inches – 0.05 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 PM source tests and visible emissions observations conducted during the source tests.

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

Conditions 9 and 10, Sulfur Compound Emissions Standard and MR&R

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

- 18 AAC 50.055(c) applies to the operation of fuel-burning equipment and industrial processes. EU IDs 1-5 are fuel-burning equipment.

The sulfur compound standard applies because it is contained in the federally-approved SIP. The Department included permit conditions for MR&R as required by 40 C.F.R. 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., fuel oils).

Liquid Fuels:

For the liquid fuel-burning equipment, EU IDs 1-5, to avoid minor permitting under 18 AAC 50.502(c)(1), the Permittee is required to limit sulfur contents of diesel fuel burned in the emissions units to concentrations lower than necessary, as shown in Condition 11. The MR&R requirements in Condition 10 for compliance with the state SO₂ standard in Condition 9 have been streamlined based on the more stringent fuel sulfur content limit of Condition 11 (0.0036 percent by weight) rather than have two sets of MR&R. Therefore, the Department concludes that the conditions, as modified, meet the requirements of 40 C.F.R. 71.6(a)(3).

Conditions 11 and 12, 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 (PTO) 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 (ORLs) established under 18 AAC 50.225. These requirements include Best Available Control Technology (BACT), 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: These conditions are carried over from Minor Permit Nos. AQ0014MSS02 issued on September 25, 2013 and AQ0014MSS03 issued September 12, 2018. Condition 11 is an ORL to avoid minor permitting under 18 AAC 50.502(c)(1) for SO₂ emissions. The Department added Condition 11.2 to gap-fill the operating report requirement for compliance verification. Condition 12 is an ORL to avoid PSD major classification for NO_x emissions. The conditions contain MR&R requirements to ensure compliance with the ORLs.

Condition 13, 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. 18 AAC 50.050(a) and 50.055 are contained in the federally-approved SIP. The Department also added permit conditions for MR&R as required by 40 C.F.R. 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 with the state emission standards. However, the Permittee may not cause or allow insignificant emissions 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 emissions units at this stationary source do not require specific monitoring, recordkeeping, and reporting to ensure compliance under these conditions.

Condition 13.4.a requires certification that the insignificant emissions units did not exceed state emission standards during the previous year and did not emit any prohibited air pollution, based on reasonable inquiry.

The Department used the language in SPC V, adopted by reference under 18 AAC 50.346(b)(4), for the permit condition.

Conditions 14 through 18, NSPS Subpart A Requirements

Legal Basis: The EPA approved Alaska's Part 70 Program granted on November 30, 2001 (40 C.F.R. 70 Appendix A). The Department is the permitting authority for the Part 70 program. As the permitting authority, the Department requires compliance with all permit conditions. Although the EPA has not delegated to the Department the authority to administer the New Source Performance Standard (NSPS) program, NSPS requirements are included in the definition for "applicable requirement" under 40 C.F.R. 71.2, which has been adopted by the Department under 18 AAC 50.040(j)(1).

The NSPS provisions under Subpart KKKK apply to the stationary source. Therefore, the Department requires compliance with those standards in a Part 70 permit issued under the approved program. However, the Department is unable to change the actual wording of the relevant standard to substitute “the Department” for “the Administrator” in those standards. Since the Department expects access to any permit-related information provided by the Permittee to the EPA, the Department will act on its responsibility as the permitting authority to determine compliance with the standard. To reflect this relationship and for the purposes of this permit, the Department has defined “the Administrator” to mean the “EPA and the Department” for conditions implementing the federal emission standards under Section 4.

Most affected facilities (with the exception of some storage tanks) subject to an NSPS are subject to Subpart A. At this stationary source, EU ID 5 is subject to NSPS Subpart KKKK and therefore subject to Subpart A.

Conditions 14.1 through 14.3 – The Permittee has already complied with the notification requirements in 40 C.F.R. 60.7 (a)(1) - (4) for EU ID 5. However, the Permittee is still subject to these requirements in the event of a new NSPS affected facility⁶ or in the event of a modification or reconstruction of an existing facility⁷ into an affected facility.

Condition 14.4 – 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 15 – The requirements in 40 C.F.R. 60.7(b) to maintain start-up, shutdown, or malfunction records are applicable to all NSPS affected facilities subject to Subpart A.

Condition 16 – The Permittee has already complied with the initial performance test requirements in 40 C.F.R. 60.8 for EU ID 5. 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 17 – The condition states that any credible evidence may be used to demonstrate compliance or to establish violations of relevant NSPS standards for EU ID 5.

Condition 18 – Concealment of emissions prohibitions in 40 C.F.R. 60.12 are applicable to EU ID 5.

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.

⁶ *Affected facility* means, with reference to a stationary source, any apparatus to which a standard applies, as defined in 40 C.F.R. 60.2.

⁷ *Existing facility* means, with reference to a stationary source, any apparatus of the type for which a 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.

Conditions 19 through 21, NSPS Subpart KKKK Requirements

Legal Basis: NSPS Subpart KKKK applies to combustion turbines with a heat input at peak load equal to or greater than 10.7 gigajoules (10 MMBtu) per hour, based on the higher heating value of the fuel, which commenced construction, modification, or reconstruction after February 18, 2005. EU ID 5 meets these criteria and is therefore subject to these requirements.

Factual Basis: Conditions 19 and 20 prohibit the Permittee from exceeding emission standards for NO_x and SO₂ set out in Subpart KKKK. The Permittee may not cause or allow EU ID 5 to violate these standards. Condition 21 states the “good air pollution control practices” requirements for the affected emissions unit. These conditions document the MR&R required by Subpart KKKK. Conditions 19.5 and 19.6 were added to gap-fill recordkeeping and reporting requirements under this subpart.

Subpart KKKK includes two options to demonstrate compliance with the NO_x standard if water and steam injection are not used to control NO_x emissions [see 40 C.F.R. 60.4340]. Condition 19.2 presents the option to conduct periodic source tests as outlined in 40 C.F.R. 60.4340(a). The alternative option outlined in 40 C.F.R. 60.4340(b) to install, calibrate, maintain, and operate a continuous monitoring system and the requirements for a continuous emission monitoring system outlined in 40 C.F.R. 60.4345, 60.4350, 60.4355, 60.4375(a), 60.4405, and 60.4410 are not included in the permit because the Permittee does not intend to use this option to demonstrate compliance with the NO_x standard for the affected turbine at the stationary source.

On April 18, 2018, the EPA issued a waiver letter to CBS, reducing the 2-year source testing frequency to a 5-year frequency, provided that CBS meets all the requirements described in Conditions 19.3(i) through 19.3(iv). However, if CBS fails to meet any of these conditions, then the reduced testing frequency will no longer be effective and CBS will need to source test the turbine as outlined in Conditions 19.2.a and 19.2.b. The Department added the notification requirement in Condition 19.3.b(i) to gap-fill compliance reporting for the EPA-granted alternative source testing frequency.

As indicated in Condition 20.1, the Permittee has elected not to monitor the total sulfur content of the fuel combusted in EU ID 5 and will demonstrate that potential sulfur emissions will not exceed the SO₂ standard by obtaining fuel quality characteristics in a current, valid purchase contract, tariff sheet or transportation contract. The fuel sulfur monitoring exemption under Subpart KKKK is found at 40 C.F.R. 60.4365. For diesel fuel, the fuel quality characteristics must specify that the maximum total sulfur content of diesel fuel delivered to the stationary source is 0.05 weight percent (500 ppmw) or less. Ultra-Low Sulfur Diesel (ULSD) fuel satisfies this requirement. MR&R requirements for compliance with the Subpart KKKK SO₂ standard have been streamlined by referencing the MR&R under Condition 11 that requires a more stringent fuel sulfur content ORL.

Condition 22, NESHAP Subpart A Requirements

Legal Basis: Most sources subject to National Emission Standards for Hazardous Air Pollutants (NESHAP) requirements are subject to NESHAP Subpart A. This stationary source is subject to 40 C.F.R. 63 Subpart ZZZZ and therefore is subject to the general provisions of Subpart A as specified in the provisions for the applicability of NESHAP Subpart A in Table 8 to NESHAP Subpart ZZZZ.

Factual Basis: Subpart A contains the general requirements applicable to all affected sources subject to NESHAP. In general, the intent of NESHAP is to regulate specific categories of stationary sources that emit or have the potential to emit one or more hazardous air pollutants.

Conditions 23 through 27, NESHAP 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), whose construction commenced before June 12, 2006, located at major and area sources of HAP emissions, excluding stationary RICE units being tested at a stationary RICE test cell/stand. Jarvis Street Diesel Plant is an area source that owns and operates RICE units, EU IDs 1-4, subject to NESHAP Subpart ZZZZ.

Factual Basis: These conditions incorporate the current (as amended through August 10, 2022) NESHAP Subpart ZZZZ requirements applicable to the existing stationary RICE, EU IDs 1-4. Jarvis Street Diesel Plant is located in an area of Alaska that is accessible by the Federal Aid Highway System (FAHS) only through the Alaska Marine Highway System (AMHS). However, on January 30, 2013, the EPA promulgated revisions to NESHAP Subpart ZZZZ rules that extended the same exemptions granted to stationary sources not accessible by the FAHS to some sources whose only connection to the FAHS is the AMHS.

Per 40 C.F.R. 63.6603(b), existing stationary non-emergency CI RICE with a site rating of more than 300 Hp located at an area source of HAP that meets either 40 C.F.R. 63.6603(b)(1) or (2) do not have to meet the numerical CO emission limitations specified in Subpart ZZZZ Table 2d but must meet the management practices for a stationary non-emergency CI RICE with a site rating of less than or equal to 300 Hp in Table 2d. Jarvis Street Diesel Plant meets the criteria in 40 C.F.R. 63.6603(b)(2), as follows: (i) the only connection to the FAHS is through the Alaska Marine Highway System (AMHS); (ii) at least 10 percent of the power generated by the stationary RICE (EU IDs 1-4) on an annual basis is used for residential purposes; and (iii) the stationary RICE are used exclusively for backup power for renewable energy. Consequently, EU IDs 1-4 are subject to the management practices standards in Subpart ZZZZ Table 2d, item 1, as provided in Condition 25 and no numerical emission standards and operational limits apply. Continuous compliance is demonstrated through work or management practices as described in Subpart ZZZZ Table 6, item 9 (Condition 24.2).

For EU IDs 1-4, the Permittee is required to perform inspections and maintenance at intervals specified by the subpart (see Conditions 25.1 through 25.4). The Permittee must also comply with the NESHAP GAPCP requirements, as reflected in Condition 24, which suffices the State GAPCP requirement under 18 AAC 50.346(b)(5).

The Permittee must comply with the recordkeeping requirements of 40 C.F.R. 63.6655(e), 63.6625(i), and 63.6660, as set out in Condition 26. The reporting requirements are provided in Condition 27. The Permittee is required to include reports of deviations from NESHAP Subparts A and ZZZZ requirements with the semiannual operating reports, per 40 C.F.R. 63.6650(f). The Department also added an excess emissions and permit deviation gap-fill reporting requirement in Condition 27.2.

The Permittee is exempt from the subpart's fuel requirements per 40 C.F.R. 63.6604(d), and from the notification requirements per 40 C.F.R. 63.6645(a)(5) since none of the affected emissions units are subject to numerical emission standards.

The provisions of NESHAP Subpart ZZZZ listed in Conditions 23 through 27 are current as amended through August 10, 2022. Should EPA promulgate revisions to this subpart, the Permittee shall be subject to the revised final provisions as promulgated and not the superseded provisions summarized in these conditions.

Condition 28, Asbestos NESHAP

Legal Basis: The requirements of 40 C.F.R. 61 are applicable requirements for Title V permitting purposes, as stated in item 4 of the "applicable requirement" definition under 40 C.F.R. 71.2. The condition requires the Permittee to comply with asbestos demolition or renovation requirements in 40 C.F.R. 61, Subpart M and associated general provisions under Subpart A, as adopted by reference under 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. ADEC received delegation for §61.145 and §61.154 of Subpart M (Asbestos), along with other sections and appendices which are referenced in §61.145, as §61.145 applies to sources required to obtain an operating permit under Alaska's regulations. ADEC has not received delegation for Subpart M for sources not required to obtain an operating permit under Alaska's regulations.

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.

Conditions 29 through 30, Protection of Stratospheric Ozone, 40 C.F.R. 82

Legal Basis: The requirements of 40 C.F.R. 82 are applicable requirements for Title V permitting purposes, as stated in item 12 of the "applicable requirement" definition under 40 C.F.R. 71.2.

Condition 29 requires compliance with the applicable requirements in 40 C.F.R. 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 C.F.R. 82, Subpart F.

Condition 30 also requires compliance with the applicable requirement adopted under 18 AAC 50.040(d). Condition 30 prohibitions apply to all stationary sources that use substitutes for ozone-depleting compounds. These conditions prohibit the Permittee from causing or allowing violations of these requirements.

Factual Basis: These conditions incorporate applicable 40 C.F.R. 82 requirements. 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 require compliance with this federal regulation.

Condition 31, NESHAP Applicability Determinations

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

Factual Basis: The Permittee has conducted an analysis of the stationary source and determined that it is not a major HAPs stationary source based on emissions. This condition requires the Permittee to notify the Department and EPA if the stationary source becomes an affected source subject to a standard promulgated by EPA under 40 C.F.R. 63 and to keep records of applicability determinations and make those records available to the Department.

Conditions 32 through 34, Standard Terms and Conditions

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

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

Condition 35, Administration Fees

Legal Basis: This condition requires compliance with the applicable fee requirements in 18 AAC 50.400-403. As stated in 18 AAC 50.326(j)(1), the provisions of 18 AAC 50.400 through 50.430 are applicable and 40 C.F.R. 71.9 is not applicable.

Factual Basis: Paying administration fees is required as part of obtaining and holding a permit with the Department or as a fee for a Department action. The regulations in 18 AAC 50.400-403 specify the amount, payment period, and the frequency of fees applicable to a permit action.

Conditions 36 and 37, Emission Fees

Legal Basis: These conditions require compliance with the applicable fee requirements in 18 AAC 50.410-420. 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 C.F.R. 71.9 is not applicable.

Factual Basis: Except as noted in the last paragraph, the Department used the language in SPC I, adopted by reference under 18 AAC 50.346(b), for the permit. SPC I requires 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.

SPC I also allows the Permittee to recalculate the stationary source's 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 must be based on actual emissions 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.

As indicated in Condition 37.3, if the stationary source has not commenced construction or operation on or before March 31st, the Permittee may submit a waiver letter certified by the responsible official under 18 AAC 50.205 indicating that the assessable emissions for the source is zero for the previous fiscal year.

The Department has modified Condition 36 by deleting the phrase “in quantities 10 tons per year or greater” to match the revision made in 18 AAC 50.410 effective September 7, 2022. Beyond as noted, the Department has determined that the standard conditions adequately meet the requirements of 40 C.F.R. 71.6(a)(3).

Condition 38, Dilution

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

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

Condition 39, 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. 18 AAC 50.045 is included in the SIP approved by EPA and, therefore, is an applicable requirement, per 40 C.F.R. 71.2.

Factual Basis: The Department used the language in SPC 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 40, Stack Injection

Legal Basis: This condition reiterates 18 AAC 50.055(g), which 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). 18 AAC 50.055 is included in the SIP approved by EPA and, therefore, is an applicable requirement, per 40 C.F.R. 71.2.

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 verified by inspections, because the unit or stack would need to be modified to accommodate stack injection.

Condition 41, Air Pollution Prohibited

Legal Basis: This condition requires compliance with 18 AAC 50.110. 18 AAC 50.110 is included in the SIP approved by EPA and, therefore, is an applicable requirement, per 40 C.F.R. 71.2. 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 C.F.R. 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 42, Technology-Based Emission Standard

Legal Basis: The Permittee is required to take reasonable steps to minimize emissions if unavoidable emergency, malfunction, or non-routine repair 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 58. Excess emission reporting under Condition 58 requires information on the steps taken to minimize emissions. Monitoring of compliance for this condition consists of the report required under Condition 58.

Condition 43, Open Burning

Legal Basis: The condition requires the Permittee to comply with the regulatory requirements in 18 AAC 50.065 when conducting open burning at the stationary source. 18 AAC 50.065 is included in the SIP approved by EPA and, therefore, is an applicable requirement, per 40 C.F.R. 71.2. 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-info>. Condition 43.1 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. Compliance is demonstrated through annual certification required under Condition 60.

Condition 44, 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). Compliance is demonstrated through the submission of the required source test plan and report.

Conditions 45 through 47, Operating Conditions, Reference Test Methods, Excess Air Requirements

Legal Basis: Conditions 45 and 47 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 46 specifies source test methods, as required by 40 C.F.R. 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 45 through 47.

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

Condition 48, 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 49 through 52, Test Deadline Extension, Test Plans, Notifications and Reports

Legal Basis: Condition 49 contains the requirement in 18 AAC 50.345(l) while Conditions 50 through 52 require compliance with the applicable requirements in 18 AAC 50.345(m) through (o). . The requirements in 18 AAC 50.345(l) through (o) are included in the SIP approved by the EPA. These requirements constitute standard conditions that must be included in each operating permit, as specified in 18 AAC 50.345(a). Additionally, 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 53, 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 standards in 18 AAC 50.050 or 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 54, Recordkeeping Requirements

Legal Basis: This condition requires the Permittee to keep records in accordance with 40 C.F.R. 71.6(a)(3)(ii), which the Department adopted by reference under 18 AAC 50.040(j)(4). It also incorporates the general NSPS recordkeeping requirement under 40 C. F. R. 60.7(f), which the Department adopted by reference under 18 AAC 50.040(a)(1).

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 evidence of compliance with this requirement.

40 C.F.R. 60.7(f) requires records retention for at least two years of the measurements required to be maintained by this Part while 40 C.F.R. 71.6(a)(3)(ii) requires at least five years of records retention. The five-year records retention requirement in Condition 54 satisfies both 40 C.F.R. 60.7(f) and 40 C.F.R. 71.6(a)(3)(ii).

Condition 55, Certification

Legal Basis: All operating permits must contain a requirement to certify permit applications, reports, affirmations, or compliance certification, per 18 AAC 50.345(j). The requirement is a 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). 18 AAC 50.345(j) allows the excess emissions reports to be certified with the operating report. However, the Department reminds the Permittee that excess emissions reports must be submitted according to the applicable deadline given in Condition 58 and must not be withheld from the Department until the deadline for submittal of an 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 56, Submittals

Legal Basis: This condition applies because the Permittee is required to send reports to the Department and supplements the standard reporting and notification requirements of this permit.

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. This condition states that the Department requires one certified copy of submitted reports (except as otherwise required by the Department or other conditions of the permit) and provides an allowance for either electronic or hard copy document submittals. 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 57, 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 345(a). This condition requires the Permittee to submit information requested by the Department.

Condition 58, 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). 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, adopted by reference under 18 AAC 50.346(b)(2), for the permit condition. The Department used the notification form in SPC IV adopted by reference under 18 AAC 50.346(b)(3), for the notification requirements (see Section 12) for the notification requirements.

Condition 59, Operating Reports

Legal Basis: The condition specifies reporting requirements as required by 40 C.F.R. 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, adopted by reference under 18 AAC 50.346(b)(6), for the permit condition. The condition restates the requirements for reports listed in regulation. The condition supplements the specific reporting requirements identified 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.

Condition 60, Annual Compliance Certification

Legal Basis: This condition requires compliance with the requirements in 40 C.F.R. 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 60.2 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 61, 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 C.F.R. 51.15 and 51.321. The federal emission inventory requirement applies to sources defined as point sources in 40 C.F.R. 51.50. Under 18 AAC 50.275, the state also requires reporting of emissions triennially for stationary sources with an air quality permit, regardless of permit classification. This includes sources that do not meet the federal emission thresholds in Table 1 to Appendix A of 40 C.F.R. 51 Subpart A. The state must report emissions data as described in 40 C.F.R. 51.15 and the data elements in Tables 2a and 2b to Appendix A of 40 C.F.R. 51 Subpart A to EPA.

Factual Basis: Except as noted in the last paragraph, 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 C.F.R. 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 <http://dec.alaska.gov/Applications/Air/airtoolsweb/>. 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 page <http://dec.alaska.gov/Applications/Air/airtoolsweb/PointSourceEmissionInventory> 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, stationary sources with air quality permits are required to submit with each report emissions data described in 40 C.F.R. 51.15 and the data elements in Tables 2a and 2b to Appendix A of 40 C.F.R. 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 C.F.R. 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.

Stationary sources, excluding owner requested limits (ORLs) issued under 18 AAC 50.225 and preapproved emission limits (PAELs) issued under 18 AAC 50.230, that do not meet any of the emission thresholds for Type A (large) sources are required to report emission inventory data every third year (i.e., triennially) for the previous inventory year under Condition 61. As of the issue date of this permit, the Jarvis Street Diesel Plant is required to report under Condition 61.

The Department has removed the annual reporting language not applicable to sources that are below the thresholds for Type A sources. Additionally, the Department modified the triennial reporting requirements under Condition 61 by including stationary sources' PTEs that are below the thresholds for annual reporting listed in Table 1 to Appendix A of 40 C.F.R. 51 Subpart A, instead of pollutant-specific thresholds for attainment and non-attainment areas. Thus, all stationary sources regardless of permit classification (excluding ORLs and PAELs) are covered under this condition, to capture the new requirements found in 18 AAC 50.275, effective September 7, 2022. Beyond as noted, the Department has determined that the standard conditions adequately meet the requirements of 40 C.F.R. 71.6(a)(3).

Condition 62, Consistency of Reporting Methodologies

Legal Basis: Condition 62 is from 18 AAC 50.275(a) and requires all stationary sources, regardless of permit classification (with the exception of owner requested limits (ORLs) issued under 18 AAC 50.225 and preapproved emission limits (PAELs) issued under 18 AAC 50.230), to report actual emissions to the state so that the state can meet its obligation under 40 C.F.R. 51. Condition 62.1 is from 18 AAC 50.275(b) and requires consistency on the stationary sources' actual emissions reports submitted for NEI and the state's assessable emissions.

Factual Basis: The regulation was added to 18 AAC 50 on September 7, 2022 so as to include all stationary sources required to report actual emissions for the purpose of federal emissions inventory and to avoid inconsistencies in actual emissions reports submitted. When reporting actual emissions under Condition 61 or assessable emissions under Condition 36.1, consistent emission factors and calculation methods shall be used for all reporting requirements for the stationary source.

Condition 63, NSPS and NESHAP Reports

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

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

Condition 64, Permit Applications and Submittals

Legal Basis: 40 C.F.R. 71.10(d)(1), adopted by reference 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, adopted by reference under 18 AAC 50.346(b)(7), for the permit condition. The condition directs the applicant to send a copy of each application for modification or renewal of this permit to the EPA. The information may be submitted in electronic format, if practicable. This condition shifts the burden of compliance with 40 C.F.R. 71.10(d)(1) from the Department to the Permittee as allowed under 40 C.F.R. 71.10(d)(1).

Conditions 65 through 67, 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)(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 C.F.R. 71.6(a)(12) and (13), as reflected in Conditions 66 and 67, respectively, specify changes that may be made without a permit revision, and 40 C.F.R. 71.6(a)(8) (Condition 65) 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 C.F.R. 71.6(a)(13)(iii); therefore, language addressing these provisions has not been included in this permit as part of Condition 65.

Condition 68, 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 C.F.R. 71.5(a) – (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 C.F.R. 71.5(a)(1)(iii), submission for a permit renewal application is considered timely if it is submitted at least six months but no more than eighteen months prior to expiration of the operating permit. According to 40 C.F.R. 71.5(a)(2), a complete renewal application is one that provides all information required pursuant to 40 C.F.R. 71.5(c) and remits 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, as long as an application has been submitted within the timeframe specified 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.

Conditions 69 through 73, 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 C.F.R. 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 74 and 75, Permit Shield

Legal Basis: These conditions require compliance with the requirements in 40 C.F.R. 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 C of Operating Permit No. AQ0014TVP03 shows the permit shield that the Department granted to the Permittee. The Department based the determinations on the permit application, past operating permit, Title I permits, and inspection reports. Should any of the shielded requirements become applicable during the permit term, the Permittee is required to take necessary steps to comply with all applicable requirements in a timely manner.

ATTACHMENT A

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

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

Pollutant (*Circle One*): SO₂ NO_x TRS H₂S CO Opacity

Reporting period dates: From _____ to _____

Company:

Emission Limitation: _____

Address: _____

Monitor Manufacturer: _____

Model No.: _____

Date of Latest CMS Certification or Audit: _____

Process Unit(s) Description: _____

Total source operating time in reporting period ¹: _____

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

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

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

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

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

Name: _____

Signature: _____ Date: _____

Title: _____