

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

**Public Comment - January 11, 2024
City of Unalaska, Department of Public Utilities
Dutch Harbor Power Plant**

**STATEMENT OF BASIS
for the terms and conditions of
Permit AQ0215TVP05**

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INTRODUCTION

This document sets forth the statement of basis for the terms and conditions of Operating Permit AQ0215TVP05.

STATIONARY SOURCE IDENTIFICATION

Section 1 of Operating Permit AQ0215TVP05 contains information on the stationary source as provided in the Title V permit application.

The Dutch Harbor Power Plant (DHPP) is owned and operated by the Permittee, City of Unalaska, Department of Public Utilities. The SIC code for this stationary source is 4911 - Electric Services. The NAICS code for this stationary source is 221112 - Electric Power Generation.

The stationary source is a prime power, diesel-electric generating facility that provides electricity to about 550 residential and commercial customers in the Unalaska and Dutch Harbor area. As provided in the application, the stationary source contains seven diesel-electric generator sets. The stationary source also includes storage tanks and a SmartAsh® cyclonic burn barrel that are insignificant emission units under 18 AAC 50.326(e).

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 DHPP that have specific monitoring, recordkeeping, and reporting requirements are listed in Table A of Operating Permit AQ0215TVP05.

Table A of Operating Permit AQ0215TVP05 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 Dutch Harbor Power Plant is shown in Table H below. The PTE totals in Table H represent a compilation of different operating scenarios. Individual pollutants were maximized while remaining below the established limits for PM₁₀ and NO_x. Maximum CO occurs with high utilization of EU IDs 7, 8, 13, and 14. Maximum NO_x occurs with high utilization of EU IDs 13, 14, 15, and 16.

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 H - Emissions Summary, in Tons Per Year (tpy)

Emissions	NO _x	CO	PM	PM ₁₀	SO ₂	VOC	CO _{2e} ¹	HAP	Total ²
PTE	1261.63	134.19	28.99	28.43	4.55	50.83	67,234	2.56	1,481.09
Assessable PTE	1261.63	134.19	28.99	Included in PM	4.55	50.83	0	0.90	1,481.09

Notes:

1. CO_{2e} emissions are defined as the sum of the mass emissions of each individual greenhouse gas (GHG) adjusted for its global warming potential. CO_{2e} emissions are excluded from the total PTE and total assessable PTE as they are not regulated under 18 AAC 50.
2. Total PTE and total assessable PTE include 0.90 tpy of HCl as hazardous air pollutant (HAP) emissions from the incinerator. Assessable HAP includes any HAP that is not included in the VOC or PM total. To avoid double counting, the Total PTE only includes the portion of HAP that is assessable.

The assessable PTE listed under Condition 51.1 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 H 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 and GHGs, emissions are as provided in the application and revised by the Department. The PTE for the SmartAsh® burn barrel was calculated using emission factors from Table 2.1-12 (industrial/commercial, single chamber for combustor type) in EPA’s AP 42.

HAP emission estimates submitted with the application included only eight individual hazardous air pollutants and did not include incinerator emissions. The Department recalculated HAP emissions using a list of 31 emission factors from EPA’s AP 42 (and WebFIRE for formaldehyde). The Department also estimated HAP PTE for the incinerator.

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

The Permittee is required to obtain an operating permit for the DHPP 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 CAA, it directly emits, or has the potential to emit, 100 tpy or more of any air pollutant subject to regulation.

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)].

AIR QUALITY PERMITS

Permits to Operate

The last permit to operate issued for this stationary source was Permit to Operate 9625-AA003. This permit to operate included all construction authorizations issued through November 9, 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 Operating Permit 215TVP01. However, all of the emissions units authorized in the permit to operate have been shut down and removed.

Title I (Construction and Minor) Permits

Construction Permit AQ0215CPT01. The application for this permit was withdrawn.

Construction Permit AQ0215CPT02. The Department issued this permit on January 31, 2007 for the installation of EU IDs 13 through 18. EU IDs 13, 14, 17, and 18 were to be installed as Phase I of the project and EU IDs 15 and 16 were to be installed as Phase II.

- Revision 1. The Department issued this revision to more clearly define the emission units covered under Phase I and Phase II and to correct other typographical errors. All stationary source-specific requirements established in this permit are included in Operating Permit AQ0215TVP05 as described in Table I below.

Construction Permit AQ0215CPT03. The Department issued this permit on July 14, 2011 to revise specific conditions of Construction Permit AQ0215CPT02. Additionally, EU ID 16 was no longer part of Phase II, and the Department removed authorization to construct the unit.

- Revision 1. The Department issued this revision to correct a material mistake in Condition 18.1. This permit was rescinded by Minor Permit AQ0215MSS03.

Construction Permit AQ0215CPT04. The application for this permit was withdrawn.

Construction Permit AQ0215CPT05. The application for this permit was withdrawn.

Minor Permit AQ0215MSS01. The application for this permit was withdrawn.

Minor Permit AQ0215MSS02. The application for this permit was withdrawn.

Minor Permit AQ0215MSS03. The Department issued this permit on November 28, 2012 to revise stack height requirements and operational requirements for certain emission units. The permit rescinds Construction Permit AQ0215CPT03, Rev 1. All stationary source-specific requirements established in this permit are included in Operating Permit AQ0215TVP05 as described in Table J below.

Minor Permit AQ0215MSS04. The Department issued this permit on November 24, 2014 to authorize installation of an engine as EU ID 16. This permit was rescinded by Minor Permit AQ0215MSS05.

Minor Permit AQ0215MSS05. The Department issued this permit on May 13, 2020 to reauthorize installation of EU ID 16 and authorize the restart of EU IDs 7 and 8. This permit revised Minor Permit AQ0215MSS03 and rescinded Minor Permit AQ0215MSS04.

- Revision 1. The Department issued this revision to correct a material mistake in the PM₁₀ emission factors for EU IDs 7 and 8. All stationary source-specific requirements established in this permit are included in Operating Permit AQ0215TVP05 as described in Table K below.

Title V Operating Permits

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

Operating Permit 215TVP01. The Department issued this permit on July 28, 2000.

- Revision 1. The Department issued an administrative amendment on September 16, 2002 for the emission fee condition.

Operating Permit AQ0215TVP02. The Department issued this permit on August 8, 2007.

- Revision 1. The Department issued a significant modification on November 22, 2010 to include the conditions of Construction Permit AQ0215CPT02 and to allow used oil to be blended with diesel fuel in accordance with the Department approval letter dated May 28, 2009.
- Revision 2. The Department issued an administrative amendment on October 25, 2011 to include the conditions of Construction Permit AQ0215CPT03, Rev 1.

Operating Permit AQ0215TVP03. The Department issued this permit on May 10, 2013.

- Revision 1. The Department issued an administrative amendment on January 16, 2015 to include the conditions of Minor Permit AQ0215MSS04.

Operating Permit AQ0215TVP04. The Department issued this permit on September 14, 2018.

- Revision 1. The Department issued a significant revision of Operating Permit AQ0215TVP04, incorporating the requirements of Minor Permit AQ0215MSS05, on July 1, 2020.
- Revision 2. The Department issued an administrative amendment on April 13, 2023 to correct a material mistake.

Operating Permit AQ0215TVP05. The Department received the application for this renewal operating permit on March 13, 2023.

COMPLIANCE HISTORY

The stationary source has operated at its current location since 1986. Review of the permit files for this stationary source, which includes the past inspection reports and compliance evaluations, shows three non-compliance determinations between 2018 and 2022. The FCE covering the period between July 1, 2016 and May 31, 2018 found the source to be out of compliance with Conditions 46.5, 62.1, and 63.2 of Operating Permit AQ0215TVP03, for reporting violations. The FCE covering the period between June 1, 2018 and December 31, 2019 found the source to be out of compliance with Conditions 1, 2.3d(i), 2.3e, and 6.2 of Operating Permit AQ0215TVP04, for exceedances of the visible emissions standard and failure to conduct Method 9 observations as

required by the permit. The FCE covering the period between January 1, 2020 and December 31, 2021 found the source to be out of compliance with several conditions of Operating Permit AQ0215TVP04 and Condition 12.2 of Minor Permit AQ0215MSS05. The Department reviewed and accepted the 2022 Annual Compliance Certification on May 2, 2023.

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:

- 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 AQ0215TVP05.

Table I below lists the requirements carried into Operating Permit AQ0215TVP05 to ensure compliance with the preconstruction permit requirements.

Table I - Comparison of Construction Permit AQ0215CPT02 , Rev 1 Conditions to Operating Permit AQ0215TVP05 Conditions

AQ0215CPT02, Rev 1 Condition No.	Description of Requirement	AQ0215TVP05 Condition No.	How Condition was Revised
5	Stack requirements	11	EU ID 16 not included because the authorization to construct was removed with Construction Permit AQ0215CPT03. EU ID 16 was re-permitted later under Minor Permit AQ0215MSS05.
11	Phase I ORL	None	Phase I has ended.
12	Phase I PSD avoidance for SO ₂	None	Phase I has ended.
13, 14, & 16	Phase II limits for PSD avoidance	None	Conditions are rescinded by Condition 21 of Minor Permit AQ0215MSS03.
15	Phase I limit for PSD avoidance	None	Condition is rescinded by Condition 21 of Minor Permit AQ0215MSS03.

AQ0215CPT02, Rev 1 Condition No.	Description of Requirement	AQ0215TVP05 Condition No.	How Condition was Revised
17	NOx BACT for EU IDs 13 & 14	12	Did not include Condition 17.2 of Construction Permit AQ0215CPT02, Rev 1 because the Permittee complied with the one-time requirement. Did not include initial source test requirements from Condition 17.3 of Construction Permit AQ0215CPT02, Rev 1 because the Permittee complied with these one-time requirements.
18	NOx BACT for EU IDs 15 & 16	None	With the issuance of Construction Permit AQ0215CPT03, the limit for EU ID 15 was revised and the installation of EU ID 16 was no longer authorized. Conditions 18.1 through 18.5 are rescinded by Condition 19 of Minor Permit AQ0215MSS03.
18.6	NOx BACT for EU ID 17	13	Not revised.
19	Reassessment of NOx BACT for Phase II	None	A new BACT analysis was conducted for Construction Permit AQ0214CPT03.
20 & 22	Stack configuration and Phase II requirements	None	Conditions are rescinded by Condition 14 of Minor Permit AQ0215MSS03.
21	Phase I requirements	None	Phase I has ended.

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

Table J - Comparison of Minor Permit AQ0215MSS03 Conditions to Operating Permit AQ0215TVP05 Conditions

AQ0215MSS03 Condition No.	Description of Requirement	AQ0215TVP05 Condition No.	How Condition was Revised
15 through 18	Ambient air quality requirements	15 & 17 through 19	Did not include Conditions 15.2 and 17.1a(iii) of AQ0215MSS03 because the Permittee complied with the one-time requirements. Conditions 19.1–19.3 of AQ0215TVP05 are modified slightly from the Title I conditions but are still the same requirements
20	BACT requirements for EU ID 15	14	Did not include the initial compliance requirements from Conditions 20.2a and 20.3a of Minor Permit AQ0215MSS03 because the Permittee has complied with the one-time requirements.
22 & 23	ORLs for PSD avoidance	20 & 21	Did not include EU IDs 1 through 6 since those units have been removed.

AQ0215MSS03 Condition No.	Description of Requirement	AQ0215TVP05 Condition No.	How Condition was Revised
24 through 36	NSPS and NESHAP requirements for EU ID 15	27 through 34, 36, & 37	NSPS and NESHAP requirements for EU ID 15 are included in Operating Permit AQ0215TVP05 as currently applicable.

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

Table K - Comparison of Minor Permit AQ0215MSS05 Rev 1 Conditions to Operating Permit AQ0215TVP05 Conditions

AQ0215MSS05 Revision 1 Condition No.	Description of Requirement	AQ0215TVP05 Condition No.	How Condition was Revised
6	Ambient air quality protection requirements	16	Not revised.
8	PSD avoidance ORL for SO ₂ and VOC	20.2	Not revised.
10	PSD avoidance ORL for PM ₁₀	21 through 21.5	Not revised.
11	ORLs for PSD avoidance for NO _x	23	Not revised.
12	EU 16 power production limit for PSD avoidance	25	Not revised.

Note: 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 CFR 64 Compliance Assurance Monitoring (CAM):** CAM applies to a pollutant-specific emissions unit at a major source if the emission unit satisfies all of the following criteria listed in 40 CFR 64.2(a): (1) the emission unit is subject to an applicable emission limitation or standard; (2) the emission unit uses a control device to comply with any such emission limitation or standard; and (3) the emission unit has potential pre-control device emissions of the applicable regulated air pollutant equal to or greater than 100 percent of the amount, in tpy, required for the stationary source to be classified as a major source for the applicable regulated air pollutant.

Although EU ID 15 uses positive crankcase ventilation as an add on control to comply with a PM_{2.5} BACT limit, the potential pre-control emissions are well below 100 tpy. If the removal efficiency of crankcase ventilation were conservatively assumed to be 50%, the pre-control emissions of PM₁₀ would still be less than 10 tpy.

The Permittee certified in the application for Operating Permit AQ0215TVP05 that the CAM rule does not apply to any emission unit at the stationary source.

- 40 CFR 68 Chemical Accident Prevention Provisions:** The Risk Management Plan requirements do not apply because the stationary source has no threshold quantities of a regulated substance used in a process, as defined in 40 CFR 68.10.

STATEMENT OF BASIS FOR THE PERMIT CONDITIONS

The Department adopted regulations from 40 CFR 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 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 AQ0215TVP05. 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 ID(s) 7, 8, and 13 through 17 are fuel-burning equipment.

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: 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 CFR 71.6(a)(3).

Except for gas fuel-burning equipment, 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.

Significant Emissions Units under 18 AAC 50.326(d)(1):

For EU ID 17, no visible emissions monitoring is required because it is insignificant based on potential emissions. EU ID 17 is limited to 100 hours of operation every 12-month period by Condition 17 and resulting emissions are less than the significant emissions thresholds in 18 AAC 50.326(e). In accordance with Department Policy and Procedure No. 04.02.103, Topic # 3, no visible emissions observations are required. The Permittee must annually certify compliance under Condition 75 with the visible emissions standard based on reasonable inquiry.

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 7, 8, and 13 through 17 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 CFR 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 CFR 71.6(a)(3).

Except for gas fuel-burning equipment, 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.

The results of the correlation study predict 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.

Significant Emissions Units under 18 AAC 50.326(d)(1):

For EU ID 17, no monitoring is required because the EU is insignificant based on potential emissions. EU ID 17 is limited to 100 hours of operation every consecutive 12-month period by Condition 17. The resulting emissions are less than the significant emissions thresholds in 18 AAC 50.326(e) and in accordance with Department Policy and Procedure No. 04.02.103, Topic # 3, no PM monitoring is required. The Permittee must annually certify compliance under Condition 75 with the PM emissions standard based on reasonable inquiry.

Condition 9, 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 ID(s) 7, 8, and 13 through 17 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 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., natural gas, fuel oils).

Liquid Fuels:

To protect the ambient air quality standards, the Permittee is required to limit the sulfur content of diesel fuel burned in EU IDs 7, 8, and 13 through 17. This requirement was established in Minor Permit AQ0215MSS03. Conditions 16.3 and 18 limit the sulfur content of the liquid fuel to no greater than 0.01 percent by weight (100 ppm) and will ensure compliance with the SO₂ emission standard in Condition 9. Therefore, the requirements for demonstrating compliance with the state SO₂ standard are streamlined based on the more

stringent fuel sulfur limits under Conditions 16.3 and 18 and the MR&R requirements under Condition 18.1. The Permittee is required to obtain fuel receipts from the fuel supplier or to determine the sulfur content of the fuel using an approved test method. The records must be submitted with the operating report. Since the minor permit condition includes a cross reference to the sulfur testing requirements in SPC XI, Condition 9.2 is retained.

The Department concludes that the standard condition, as modified, meets the requirements of 40 CFR 71.6(a)(3) and intent of the Standard Permit Condition XI MR&R.

Condition 10, Used Oil Requirements

Legal Basis: This condition should ensure compliance with state particulate matter emission standard when used oil is added to diesel fuel. As previously stated, the particulate matter standard is contained in the federally approved SIP.

Factual Basis: Because of various additives and metal contaminants, used oil may have higher particulate emissions and/or sulfur emissions than virgin fuel oil. In a letter dated May 28, 2009, the Department approved a method for blending used oil with fuel oil. The method keeps the used oil ratio under 0.8%.

At low blend ratios ($\leq 0.80\%$ used oil), the Department concludes there is probably no significant difference between the fuel properties of the blended fuel and that of regular fuel oil after normal contamination from storage & transfer systems and handling. The Department expects the blended fuel will still meet ASTM No. 2 diesel fuel specification.

With a fuel blend of 0.8 percent or less of used oil, the state sulfur standard will be met. However, monitoring must be conducted when used oil is added to fuel to ensure the ambient air quality limit of 0.01 percent fuel sulfur is met.

Conditions 11 through 25, 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 Prevention of Significant Deterioration (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: EU IDs 13 through 15 and 17 have NO_x BACT limits (Conditions 12 through 14). NO_x source testing is required for EU IDs 13 and 14 anytime an engine is reconfigured to show the engine continues to meet the NO_x BACT limit. For EU IDs 15 and 17, the NO_x limits in NSPS Subpart III are as stringent or more stringent than the NO_x BACT limits. The Permittee must demonstrate compliance with the NO_x BACT limits by following the compliance requirements for NO_x in NSPS Subpart III, which includes purchasing an engine that is certified to meet the emissions standard.

EU ID 15 also has a BACT limit for PM_{2.5}, which is equal to the PM limit for EU ID 15 in NSPS Subpart IIII. Therefore, the Permittee also demonstrates compliance with the PM_{2.5} BACT limit by following the compliance requirements for PM in NSPS Subpart IIII. The Department added gap fill reporting requirements.

Conditions 15 through 19 were established to protect the Alaska Ambient Air Quality Standards (AAAQS). Condition 18 contains a fuel sulfur content limit of 0.01 wt%S (100 ppm) for EU IDs 7, 8, 13 through 15 and 17. This limit protects protect the 1-hour, 3-hour, 24-hour, and annual SO₂ AAAQS and the 3-hour, 24-hour, and annual SO₂ increment.

Limits for ambient air quality require EU ID 17 to operate 100 hours or less each year and 12 hours or less each day (Conditions 17 and 19, respectively). Therefore, the Department did not require source testing to verify the PM₁₀ emission factor for EU ID 17 in Operating Permit AQ0215TVP05.

The PSD avoidance limits of 51.2 tpy for VOC and 46.8 tpy for SO₂ were established in Construction Permit AQ0215CPT03, which contained requirements for EU IDs 7, 8, 13 through 15 and 17 (see Condition 20). The limits were established to prevent increases of VOC and SO₂ emissions from exceeding 39.9 tpy, each. The limits were carried into Minor Permit AQ0215MSS03. Compliance with the limits is demonstrated by calculating and reporting actual emissions.

Total PM₁₀ emissions from EU IDs 7, 8, 13 through 15 and 17 are limited to no more than 22.3 tpy to avoid PSD requirements (Condition 21). MR&R requirements include monitoring fuel usage and kilowatt hours produced for each engine and calculating PM₁₀ emissions using emission factors provided in the operating permit or more recent emission factors from a Department accepted source test. If a recent source test result is greater than an emission factor in the permit, the Permittee should calculate actual emissions using the recent source test result, beginning on the first day of the month in which the source test results were accepted by the Department. EU ID 14 was tested in 2020 at 25%, 75%, and full load but the EF was not given in units of g/kW-hr. EU ID 13 was tested in 2021 at only 50% load, but the results of the first run are questionable. Condition 22 requires a PM₁₀ source test on either EU ID 13 or 14 during the permit term.

The Department realizes the difficulties of mobilizing testing equipment to Dutch Harbor, however, demonstrating compliance with BACT and PSD avoidance limits requires that emission factors (EFs) be validated regularly (typically once every five years). The PM₁₀ EFs in Table E are from AP-42, manufacturer's data, and a 2012 source test result.

The ORL in Condition 23 limits the combined NO_x emissions from EU IDs 7 and 16 to no more than 161.7 tpy. This limit allows DHPP to continue to avoid PSD review for EU ID 16. The PSD applicability analysis is included in the technical analysis report for Minor Permit AQ0215MSS05. Compliance is demonstrated by tracking and reporting actual NO_x emissions. The NO_x emission factor for EU ID 16 is from a 2015 source test and corresponds to a load of 3,760 kWe. Therefore, the Department imposed a power production limit on EU ID 16 of no greater than 3,760 kWe during any given hour. Condition 24 requires NO_x source testing of both EUs because EU ID 7 has not been tested and EU ID 16 was last tested in 2015.

PM₁₀ emissions for EU ID 16 are operationally restricted to an upper limit of 6.1 tpy as a result of the NO_x limit to avoid PSD review and using the manufacturer's not-to-exceed value at 75 percent load for the PM₁₀ emission factor. A source test conducted in 2015 showed emissions of 2.35 lb/hr or 0.284 g/kW-hr at a load of 3,760 kWe (the maximum load at which EU ID 16 is permitted to operate under Condition 25). The engine is subject to the PM limit in NSPS Subpart IIII of 0.5 g/kW-hr and the Permittee complies with Subpart IIII by purchasing an engine certified to meet the emission standards of the subpart. Therefore, the Department did not require a PM source test on EU ID 16 in Operating Permit AQ0215TVP05.

Condition 26, Insignificant Emissions Units

Legal Basis: The Permittee is required to meet the state emission standards in 18 AAC 50.050(a) for all incinerators regardless of size and 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 CFR 71.6(a)(3) and 71.6(c)(1).

Factual Basis: The condition requires insignificant emissions units, including the SmartAsh® cyclonic burn barrel, 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 26.4.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 27 through 29, NSPS Subpart A Requirements

Legal Basis: The EPA approved Alaska's Part 70 Program granted on November 30, 2001 (40 CFR 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 CFR 71.2, which has been adopted by the Department under 18 AAC 50.040(j)(1).

Most affected facilities (with the exception of some storage tanks) subject to an NSPS are subject to Subpart A. At this stationary source, EU IDs 15 through 17 are subject to NSPS Subpart IIII and therefore the Permittee must comply with the applicable requirements of

Subpart A. EU IDs 15 through 17 are exempt from certain provision of Subpart A per 40 CFR 60.4218 because those provisions are also in NSPS Subpart III.

Conditions 27.1 through 27.3 - 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 27.4 - The requirements to notify the EPA and the Department of any proposed replacement of components of an existing facility (40 CFR 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 28 – The NSPS general recordkeeping requirements under 40 CFR 60.7(f) requires records retention for at least two years of the measurements required to be maintained by this Part. This requirement is satisfied by Condition 69, which requires at least five years of records retention, in accordance with 40 CFR 71.6(a)(3)(ii)(B) adopted under 18 AAC 50.040(j)(4).

Condition 28 - The Permittee is 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 29 – Prohibits concealment of emissions in accordance with 40 CFR 60.12.

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.

Conditions 30 through 34, NSPS Subpart III Requirements

Legal Basis: NSPS Subpart III applies to stationary compression ignition internal combustion engines (CI ICE) that commence construction, modification, or reconstruction after July 11, 2005 where the stationary CI ICEs are manufactured after April 1, 2006 for non-fire pump engines and manufactured as a certified National Fire Protection Association (NFPA) fire pump engine after July 1, 2006 for fire pump engines. EU IDs 15 through 17 are subject to Subpart III requirements because they are generator engines constructed after July 11, 2005 and manufactured after April 1, 2006. EU ID 17 is an emergency engine under Subpart III. For EU IDs 13 and 14, the Permittee entered into a purchase contract for the engines in 2004. Therefore, construction of these engines commenced prior to July 11, 2005 and these engines are not subject to the requirements of Subpart III.

Factual Basis: These conditions incorporate the Subpart III emissions standards applicable to EU IDs 15 through 17. The Permittee may not cause or allow these emissions units to violate these standards. These conditions also provide MR&R specifically called for within the Subpart. The Permittee is required to operate and maintain the stationary CI ICE

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.

according to the manufacturer's written instructions or procedures developed by the Permittee that are approved by the engine manufacturer.

Emission standards that apply to Subpart IIII-affected CI ICE depend on several factors, including, but not limited to, the unit's purpose (whether emergency or non-emergency), model year, displacement in liters/cylinder and location. Some of this information are provided in Table A of the permit.

MR&R requirements are provided in Conditions 32 and 33. Provisions for importing or installing stationary CI ICE in previous model years required under 40 CFR 60.4208 are provided in Condition 34.

The provisions of NSPS Subpart IIII listed in Conditions 30 through 34 are current as amended through March 27 2023. 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 35, Asbestos NESHAP

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 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 40 CFR 61.145 and 61.154 of Subpart M (Asbestos), along with other sections and appendices which are referenced in 40 CFR 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.

Condition 36, 40 CFR 63 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 CFR 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.

Condition 37 through 42, 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. The DHPP is an area source that owns and operates RICE units subject to NESHAP Subpart ZZZZ.

Factual Basis: This condition incorporates the current (as amended through May 30, 2023) NESHAP Subpart ZZZZ requirements applicable to EU IDs 7, 8, and 13 through 17.

EU IDs 15 through 17 are new engines under Subpart ZZZZ and must comply with Subpart ZZZZ by complying with NSPS Subpart IIII.

EU IDs 7, 8, 13, and 14 are existing, non-emergency, compression ignition (CI) RICE located in an area not accessible by the Federal Aid Highway System (FAHS). These engines are not subject to emission or operational limitations, but are subject to work and management practice standards for stationary non-emergency CI RICE with a rating of less than or equal to 300 hp, as specified in Table 2d to Subpart ZZZZ. Additionally, fuel requirements do not apply as specified in 40 CFR 63.6604(d).

Under 40 CFR 63.6645(a)(5), initial notification is not required for existing stationary CI RICEs that are not subject to any numerical emission standards.

The provisions of NESHAP Subpart ZZZZ listed in Conditions 37 through 42 are current as amended through May 30, 2023. 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.

Conditions 43 through 45, Protection of Stratospheric Ozone, 40 CFR 82

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 43 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 44 and 45 also require compliance with the applicable requirement adopted under 18 AAC 50.040(d). Condition 44 prohibitions apply to all stationary sources that use substitutes for ozone-depleting compounds. Condition 45 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.

Factual Basis: These conditions incorporate applicable 40 CFR 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 46, NESHAP Applicability Determinations

Legal Basis: This condition requires the Permittee to determine rule applicability of NESHAP and requires recordkeeping 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 HAP 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 CFR 63 and to keep records of applicability determinations and make those records available to the Department.

Conditions 47 through 49, 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 CFR 71.6(a)(5) through (7).

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

Condition 50, 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 CFR 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 51 and 52, 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 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. 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 at 10 tons per year or greater (AS 46.14.250(h)(1)).

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.

Condition 53, 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 CFR 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 54, 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 CFR 71.2.

This requirement applies because the Permittee has an emission unit or activity listed under Table 7 of 18 AAC 50.346(c).

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 55, 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 CFR 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 emissions unit or stack would need to be modified to accommodate stack injection.

Condition 56, 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 CFR 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 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 57, 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 Conditions 73. Excess emission reporting under Condition 73 requires information on the steps taken to minimize emissions. Monitoring of compliance for this condition consists of the report required under Condition 73.

Condition 58, 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 CFR 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 58.1 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 75.

Condition 59, 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 60 through 62, Operating Conditions, Reference Test Methods, Excess Air Requirements

Legal Basis: Conditions 60 and 62 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 61 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 60 through 62.

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

Condition 63, 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 64 through 67, Test Deadline Extension, Test Plans, Notifications and Reports

Legal Basis: Condition 64 contains the requirement in 18 AAC 50.345(l), while Conditions 65 through 67 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 68, 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 69, 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). It also incorporates the general NSPS recordkeeping requirement under 40 CFR 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 CFR 60.7(f) requires records retention for at least two years of the measurements required to be maintained by this Part while 40 CFR 71.6(a)(3)(ii) requires at least five years of records retention. The five-year records retention requirement in Condition 69 satisfies both 40 CFR 60.7(f) and 40 CFR 71.6(a)(3)(ii).

Condition 70, 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 73 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 71, 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 72, 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 73, 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. For the notification requirements under Condition 73.3, the Department modified the SPC language to align with new regulations under 18 AAC 50.270. Beginning no later than September 7, 2023, it is mandatory to report using the Air Online Services (AOS) system webpage. After that date, the notification form in SPC IV (Section 12) may only be used with prior Department approval. The Department concludes that the standard conditions, as modified, meet the requirements of 40 CFR 71.6(a)(3).

Condition 74, Operating Reports

Legal Basis: 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, 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 75, 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 75.2 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 76, 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 federal emission inventory requirement applies to sources defined as point sources in 40 CFR 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 CFR 51 Subpart A. 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: 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 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 <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 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 shown in Condition 76.1 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.

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 in Condition 76.1 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 76.2.

The Department has modified the triennial reporting requirements under Condition 76.2 by including stationary sources' PTEs that are below the thresholds for annual reporting in Condition 76.1, instead of listing 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 CFR 71.6(a)(3).

Condition 77, Consistency of Reporting Methodologies

Legal Basis: Condition 77 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 CFR 51. Condition 77.1 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 76 or assessable emissions under Condition 51.2, consistent emission factors and calculation methods shall be used for all reporting requirements for the stationary source.

Condition 78, 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 CFR 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 CFR 60, 40 CFR 61, and 40 CFR 63. The reports themselves provide monitoring for compliance with this condition.

Condition 79, Permit Applications and Submittals

Legal Basis: 40 CFR 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 CFR 71.10(d)(1) from the Department to the Permittee as allowed under 40 CFR 71.10(d)(1).

Conditions 80 through 82, 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 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), as reflected in Conditions 81 and 82, respectively, specify changes that may be made without a permit revision, and 40 CFR 71.6(a)(8) (Condition 80) states permit revisions are not required for some emissions trading and similar programs.

Condition 83, 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 84 through 89, General Compliance Requirements

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 required for all operating permits.

Conditions 90 and 91, 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 G of Operating Permit AQ0215TVP05 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.