

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

[Public Comment - November 10, 2025]

**Hilcorp Alaska, LLC
Northstar Production Facility**

**STATEMENT OF BASIS
for the terms and conditions of
Permit No. AQ0503TVP04**

**Prepared by Zachary Boyden
ADEC AQ/APP (Anchorage)**

INTRODUCTION

This document sets forth the statement of basis for the terms and conditions of Operating Permit No. AQ0503TVP04.

STATIONARY SOURCE IDENTIFICATION

Section 1 of Operating Permit No. AQ0503TVP04 contains information on the stationary source as provided in the Title V permit application.

The Northstar Production Facility is owned and operated by, Hilcorp Alaska, LLC and Hilcorp Alaska, LLC is the Permittee for the stationary source's operating permit. The SIC code for this stationary source is 1311 - Crude Petroleum and Natural Gas Production.

The Northstar Production Facility is located on Seal Island, an artificial gravel island about six miles offshore of the Point McIntyre/Point Storkerson area in the Beaufort Sea, north of Prudhoe Bay. Northstar is a self-contained production facility containing emissions units (EUs) associated with oil and gas production and living quarters. Significant EUs at the Northstar Production Facility are turbines, generators, heaters, incinerators, flares, and storage tanks.

The Department decided that the Northstar Production Facility was a separate stationary source from the natural gas off-take facility at Caribou Crossing and from the Northstar Tie-in Module at TAPS Pump Station 1 when the Department issued the construction permit to establish the source on February 5, 1999. On October 27, 2003, in the statement of basis for Operating Permit AQ0472TVP01, the Department reaffirmed that the Northstar Caribou Crossing stationary source was separate from both the Prudhoe Bay Unit and the Northstar Production Facility. The statement of basis for Operating Permit AQ0503TVP02 further discusses the issue of aggregation and the commonsense notion of a plant.

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 Northstar Production Facility that have specific monitoring, recordkeeping, and reporting requirements are listed in Table A of Operating Permit No. AQ0503TVP04.

Table A of Operating Permit No. AQ0503TVP04 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 as indicated in the application and verified by the Department from the Northstar Production Facility is shown in the table below.

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

Emissions	NO _x	CO	PM	SO ₂	VOC	CO _{2e} ¹	HAPs	Total ²
PTE	585.64	1,443.71	53.88	201.20	543.34	561,438	11.26	2,839.02
Assessable PTE	585.64	1,443.71	53.88	201.20	543.34	0	5.05	2832.82

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}.
3. Excluding 5.05 TPY of hydrochloric acid, HAP emissions are a subset of either VOC emissions or PM₁₀ emissions and are excluded from the assessable emissions total to avoid double counting.

The assessable PTE listed under Condition 74.1 is the sum of the PTE of each individual air pollutant, other than greenhouse gases (GHGs). The emissions listed in Table E 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, as follows: NO_x and CO BACT limits for EU IDs 1 through 7, ambient protection limit for EU IDs 11, and 12; manufacturer data sheets for EU IDs 6 through 8 and 22; AP-42 Tables 1.3-1, 1.4-1, 1.4-2, 2.1-12, 3.1-1, 3.1-2a, 7.1, 13.5-1; TANKS 4.0.9d; and SO₂ mass balance.

The applicant calculated HAP emissions using AP-42 and Ventura County Air Pollution Control District flare emission factors.

BASIS FOR REQUIRING AN OPERATING PERMIT

In accordance with AS 46.14.130(b), an owner or operator of a Title V source² must obtain a Title V permit consistent with 40 C.F.R. Part 71, as adopted by reference in 18 AAC 50.040.

Except for 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.

¹ *Potential to Emit* or *PTE*, as defined in AS 46.14.990 (22), 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.

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)].

The Permittee is required to obtain an operating permit for the Northstar Production Facility 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
 - it is a major stationary source as defined in Part D of Title I of the Act.
- 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); and
- A source, including an area source, subject to a standard or other requirement under Section 112 of the Act (NESHAP) 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.

Title I (Construction and Minor) Permits

Construction Permit No. 9873-AC020. The Department issued Construction Permit No. 9873-AC020 on January 20, 1999. The permit established an oil and gas processing facility, transportable drill rig, camp infrastructure, and emissions units associated with development drilling, pipeline tie-in, on-island construction activities, and crude oil processing.

- Revision No. 1. The Department issued this revision on November 12, 1999 to revise several dates specified in the permit.

Construction Permit No. 0073-AC001. The Department issued this permit on March 28, 2000. The permit revised monitoring requirements and authorized additional temporary emitting activities on the island. Construction Permit 0073-AC001 rescinded Construction Permit 9873-AC020. The Department established stationary source-specific requirements in this Title I permit.

Construction Permit No. 0073-AC011. The Department issued this permit on August 16, 2000. The permit revised specific conditions of Construction Permit 0073-AC001. Construction Permit 0073-AC011 rescinded Construction Permit 0073-AC001. The Department established stationary source-specific requirements in this Title I permit.

Construction Permit No. 0073-AC021. The Department issued this permit on November 1, 2000. The permit updated emission factors for the five natural gas-fired nonroad engines (EU IDs 200 through 204), which have since been removed from the stationary source. Construction Permit 0073-AC021 rescinded Construction Permit 0073-AC011. The Department established stationary source-specific requirements in this Title I permit.

- Revision No. 1. The Department issued this revision on September 12, 2001 to authorize small changes for the small warehouse space heaters.

Minor Permit No. AQ0503MSS01. On December 8, 2005, the Permittee submitted a minor permit application to address issues in COBC 2001-673-50-2654; revise Construction Permit 0073-AC021, Revision 1; re-characterize several EUs; authorize replacement of emergency generators

with similar equipment; authorize replacement of EU ID 9b with a new incinerator (EU ID 9a); combine flare limits; simplify monitoring, recording, and reporting (MR&R) requirements; revise emission factors for several emissions units; and update the emissions unit inventory. The Department issued Minor Permit No. AQ0503MSS01 on July 20, 2007. Minor Permit AQ0503MSS01 effectively rescinded COBC 2001-673-50-2654. Minor Permit AQ0503MSS01 rescinded Construction Permit 0073-AC021, Revision 1. The Department established stationary source-specific requirements in this Title I permit.

Minor Permit No. AQ0503MSS02. On August 8, 2008, the Permittee submitted a minor permit application to authorize the delay of a 15 parts per million by weight (ppmw) fuel sulfur requirement for some emissions units until after June 1, 2010. The Department issued Minor Permit No. AQ0503MSS02 to this stationary source on December 30, 2008. Minor Permit AQ0503MSS02 revised Condition 9.2 of Minor Permit AQ0503MSS01. The Department established stationary source-specific requirements in this Title I permit.

Minor Permit No. AQ0503MSS03. On December 12, 2008, the Permittee submitted a minor permit application to update the emissions unit inventory, revise stack height requirements for the fire water pump, limit H₂S content of the fuel gas to 50 parts per million by volume (ppmv), and limit the sulfur content of diesel burned in some emissions units to 15 ppmw. The Department issued Minor Permit No. AQ0503MSS03 on March 14, 2011. Minor Permit AQ0503MSS03 rescinded Minor Permits AQ0503MSS01 and AQ0503MSS02. The Department established stationary source-specific requirements in this Title I permit.

Construction Permit No. AQ0503CPT05. The application for this permit was withdrawn.

Construction Permit No. AQ0503CPT06. The Department issued this permit on June 26, 2012. The permit authorized a PSD major modification for sulfur dioxide (SO₂) emissions. The permit also revised an established Best Available Control Technology (BACT) limit. Construction Permit AQ0503CPT06 rescinded Minor Permit AQ0503MSS03. The Department established stationary source-specific requirements in this Title I permit.

Construction Permit No. AQ0503CPT07. The Department issued this permit on October 24, 2012. The permit authorized a PSD major modification for carbon monoxide (CO) emissions, revised the limit on fuel gas flared at the Northstar Production Facility and established a BACT limit for CO emissions for the flares. Construction Permit AQ0503CPT07 rescinded Construction Permit AQ0503CPT06. The Department established stationary source-specific requirements in this Title I permit.

- Revision No. 1. The Department issued this revision on November 18, 2014 to transfer ownership of the Northstar Production Facility from BPXA (Alaska) to Hilcorp Alaska, LLC. All stationary source-specific requirements established in this permit are included in Operating Permit No. AQ0503TVP04 as described in Table F.

Minor Permit No. AQ0503MSS04. On March 28, 2019, the Permittee submitted a minor permit application to require HAP emissions controls for the dehydration unit and establish a federally enforceable limit to ensure the stationary source remains an area source of HAP emissions. The Department issued Minor Permit No. AQ0503MSS04 to this stationary source on June 3, 2019. The Department established stationary source-specific requirements in this Title I permit. All stationary source-specific requirements established in this permit are included in Operating Permit No. AQ0503TVP04 as described in Table G.

Title V Operating Permits

Permit No. AQ0503TVP01. The owner or operator submitted an application for an initial Title V operating permit dated November 1, 2007. The Department issued Operating Permit No. AQ0503TVP01 on August 15, 2008.

- Revision No. 1. The Department administratively amended the permit on July 18, 2012 to incorporate the terms and conditions of Construction Permit AQ0503CPT06.
- Revision No. 2. The Department administratively amended the permit on December 5, 2012 to incorporate the terms and conditions of Construction Permit AQ0503CPT07.

Permit No. AQ0503TVP02. The Permittee submitted an application to renew Operating Permit No. AQ0503TVP01 dated January 15, 2013. The Department issued Operating Permit No. AQ0503TVP03 on March 11, 2014.

- Revision No. 1. The Department administratively amended the permit on November 18, 2014 to transfer ownership of the Northstar Production Facility from BPXA (Alaska) to Hilcorp Alaska, LLC.
- Revision No. 2. The Department issued a significant modification to the permit on June 3, 2016 to delete Condition 29 of Operating Permit AQ0503TVP02 Revision 1. The purpose of Condition 29 was to avoid exceedances of the CO and NO_x BACT limits. However, the permit already contained requirements to ensure that the NO_x and CO emission rates did not exceed the BACT limits. Therefore, the Department decided that Condition 29 was no longer necessary and deleted it.

Permit No. AQ0503TVP03. The Permittee submitted an application to renew Operating Permit No. AQ0503TVP02 dated May 4, 2018. The Permittee amended the application on September 14, 2018, February 12, 2019, and May 31, 2019. The Department issued Operating Permit No. AQ0503TVP03 on June 10, 2020.

Permit No. AQ0503TVP04. Hilcorp Alaska, LLC submitted an application to renew Operating Permit No. AQ0503TVP03 under a December 5, 2024 cover letter. The Department received the application on December 6, 2024. The Department received additional information on February 4, 2025. The Department issued Operating Permit No. AQ0503TVP04 on *DATE*.

COMPLIANCE HISTORY

The stationary source has operated at its current location since 1999. 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.

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. AQ0503TVP04.

Table F and Table G below lists the requirements carried into Operating Permit No. AQ0503TVP04 to ensure compliance with the preconstruction permit requirements.

Table F - Comparison of Construction Permit No. AQ0503CPT07, Revision 1 Conditions to Operating Permit No. AQ0503TVP04 Conditions¹

AQ0503CPT07 Rev 1 Condition No.	Description of Requirement	AQ0503TVP04 Condition No.	How Condition was Revised
4.1	Incinerator visible emissions MR&R	2.1	No change.
5.2a	EU IDs 6 and 7 visible emissions MR&R	1.1.a	No change.
5.2b	EU ID 8 visible emissions MR&R	1.2.a	No change.
8	Notification	20	No change.
9	Used Oil	21	No change.
10	General Ambient Air Quality Provisions	22	Removed Condition 10.1.c as completed one-time requirement. Replaced EU ID 9a with 9c. Removed EU IDs 10a & 10b.
11	Fuel Sulfur Limits	23	No change.
12	Operating Limits	24	Revised column title "Rating" to "Maximum Aggregate Capacity/Limit" Revised rating for EU IDs 1 through 8 to clarify these units have unrestricted ratings.
13, 14	MR&R for Condition 12	0, 26	Revised term "hourly operational limit" to "cumulative rated capacity/limit"
15	Commercial and Industrial Wastes Burned in Incinerator	None	EU ID 9a has been removed.
16	NO _x BACT	27	Revised recurring testing and testing frequency of EU IDs 1 – 5 to follow NSPS GG. Removed test run duration and number of test loads requirements. Removed requirement to test EU IDs 6 or 7 during the life of AQ0503TVP04.

AQ0503CPT07 Rev 1 Condition No.	Description of Requirement	AQ0503TVP04 Condition No.	How Condition was Revised
17	CO BACT	28	Removed requirement to test EU IDs 6 or 7, and 8 during the life of AQ0503TVP04. Removed test run duration and number of test loads requirements.
18	SO ₂ BACT	29	Clarified that BACT limits do not apply to EU IDs not included in EU inventory at time of BACT determination. EU ID 22 was not included in EU inventory at time of current BACT determination.
19	VOC BACT	30	Specified equipment name for affected EU IDs.
20	PM ₁₀ BACT	31	Clarified that BACT limits do not apply to units not included in EU IDs inventory at time of BACT determination. EU ID 22 was not included in EU inventory at time of current BACT determination.

Note:

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

Table G - Comparison of Minor Permit No. AQ0503MSS04 Conditions to Operating Permit No. AQ0503TVP04 Conditions¹

AQ0503MSS04 Condition No.	Description of Requirement	AQ0503TVP04 Condition No.	How Condition was Revised
2	Maintenance Requirements	None	Part of general requirements and not carried over as part of the ORL Condition.
4	ORLs for VOC and HAP emissions	32	Removed mention of glycol heater EU ID 13 from requirement to route and flare gas. Glycol heater is separate from the reboiler. Removed one-time requirement for flare visible observation. Note this does not remove the requirement for periodic flare visible observations in Condition 6.

Note:

1. 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.

- NSPS Subpart KKKK: Although the Permittee has several turbines (EU IDs 1 through 5), the provisions of this Subpart are not currently applicable since the turbines have not been modified or reconstructed since the Subpart applicability date. A permit shield has been granted for this regulation.
- NSPS Subpart IIIa: The Department determined that EU ID 9c incinerator qualifies as a small, remote incinerator (SRI) operating in Alaska under the Subpart IIIa exemption language 40 C.F.R. 62.14530a(1). EU ID 9c is an existing Commercial Industrial Solid Waste Incineration (CISWI) unit. Absent a state plan submitted for Alaska to follow the Emission Guidelines Subpart DDDD for existing CISWI, EPA developed a federal plan (Subpart IIIa) to implement CISWI guidelines. Under the Consolidated Appropriations Act of 2024, H.R. 4366, section 432, the EPA is prohibited from implementing Subparts CCCC and DDDD (CISWI regulations) on Alaskan SRI. SRI are defined as an incinerator that combusts solid waste and combusts 3 tons per day or less solid waste and is more than 25 miles driving distance to the nearest municipal solid waste landfill. Northstar Production Facility is over 25 driving miles from the nearest municipal landfill, satisfying part of the definition. However, the renewal application lists EU ID 9c rated capacity to be 4.32 tons per day, which is above the SRI threshold. Absent an EPA finding, the Department has decided that incinerator operators may demonstrate adherence to the SRI definition by providing records of actual combustion for the preceding 6 months, following the definition of CISWI. EU ID 9c combusted less than 3 tons per day for the six months preceding the application to renew the operating permit. Therefore, the incinerator satisfies the definition of SRI.
- NSPS Subpart EEEE: On June 17, 2025, the EPA signed revisions to NSPS Subparts EEEE and FFFF (standards of performance and emission guidelines for Other Solid Waste Incineration [OSWI] units) which will become a final rule after publication in the Federal Register. This rule states that incinerators previously defined as SRI under CISWI will now be subject to the OSWI rule as very small municipal waste combustors (VSMWC). The Department anticipates that after federal publication and state adoption of the rule, the Permittee will apply for an operating permit revision to include the applicable requirements for EU ID 9c under NSPS EEEE. The Permittee is not subject to Subpart FFFF because the subpart contains standards for the State of Alaska, should Alaska develop a state plan for OSWI units.
- NESHAP Subpart ZZZZ: Group B and C engines in Table A of the operating permit are not subject to Subpart ZZZZ because they are nonroad engines as defined under 40 C.F.R. 1068.30, and are not considered stationary engines under 40 C.F.R. 63.6675. The intermittent well servicing equipment; and wire line and truck cranes, only operate periodically at Northstar. These engines are moved from one location to another on Northstar Island to perform different functions.
- 40 C.F.R. 64 Compliance Assurance Monitoring (CAM): None of the emissions units at the stationary source use a control device to achieve compliance with emission limits or standards. EU IDs 13 and 23 HAP and VOC vent emissions are controlled by the low

pressure flare. However, the VOC and HAP emission limits are emission caps. Therefore, CAM requirements are not applicable.

- 40 C.F.R. 68 Chemical Accident Prevention Provisions: The Risk Management Plan (RMP) requirements do not apply because the stationary source has no threshold quantities of a regulated substance used in a process as defined in 40 C.F.R. 68.10.

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. AQ0503TVP04. 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 and 3 through 6, Visible Emissions Standard and MR&R

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

- 18 AAC 50.055(a) applies to the operation of fuel-burning equipment and industrial processes. EU IDs 1 through 8, 11 through 13, 16 through 18, 22, 23, Group B Snow Melters, Group B Heaters, Group C Heaters & Boilers, and Group C Turbines are fuel-burning equipment or industrial processes.

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 3 through 5 (for liquid fuel-burning equipment) and Condition 6 (for flares) 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 modified these conditions, as follows:

- Minimum hours for required visible emissions observations for EU IDs 6 through 8 are included as specified in Construction Permit AQ0503CPT07.

Beyond as noted above, the Department has determined that the standard conditions adequately meet the requirements of 40 C.F.R. 71.6(a)(3). No additional 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, as modified, meet the requirements of 40 C.F.R. 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.

Condition 6 was developed to provide a standardized version of flare monitoring that is not dependent upon the type or design of upstream equipment. It has been claimed that gas fuel-burning flares normally burn without emitting visible emissions. However, gas fuel-burning flares have been shown to smoke when a control device malfunctions (e.g., knockout drum, flare scrubber, gas or steam assist, or vapor recovery system). The condition sets out a protocol to collect actual field data to determine compliance with the 20 percent visible emissions standard for flares.

Gas Fuel-Burning Equipment:

Monitoring – The monitoring of gas fuel-burning emissions units for visible emissions is waived; i.e., no Method 9 observations will be required. The Department has found that natural gas fuel-burning equipment inherently has negligible visible emissions. However, the Department can request a source test for PM emissions from any smoking equipment.

Reporting – The Permittee must state in each operating report whether only gaseous fuels were used in the equipment during the period covered by the report.

Liquid Fuel- Burning Equipment:

Monitoring – The emissions unit exhaust must be observed by the Method 9 Plan as detailed in Condition 3. 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 copies of the results of all visible emission observations.

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

EU IDs 8, 22, 23, Group B Snow Melters, Group B Heaters, and Group C Turbines do not qualify as insignificant per 18 AAC 50.326(d)(1) because they are subject to operational limits established under a Title I permit and standards established under NSPS IIII and NESHAP ZZZZ.

EU ID 23 is a TEG dehydration unit; thus, it has potential emissions less than the significant emissions thresholds in 18 AAC 50.326(e). Therefore, the Department has waived visible emissions monitoring for EU ID 23 but the unit is subject to compliance certification requirements, in accordance with Department Policy and Procedure No. 04.02.103, Topic #3.

For EU IDs 8, 22, Group B Snow Melters, Group B Heaters, and Group C Turbines, no visible emissions monitoring is required when these emissions units are insignificant based on actual or potential emissions due to permit Condition 24 that limits their hours of operation or fuel consumption. As long as the emissions units operate within these limits, they are insignificant by emissions rate as specified in 18 AAC 50.326(e) and no monitoring is required in accordance with Department Policy and Procedure No. 04.02.103, Topic # 3. The Permittee must

annually certify compliance under Condition 99 with the visible emissions standard based on reasonable inquiry.

Flares:

Monitoring for flares requires Method 9 observations of scheduled daylight flaring events lasting more than one hour. The Permittee must report the results of these observations to the Department.

For stationary flares, EU IDs 11 and 12, the Permittee is required to conduct an initial visible emissions observation within 12 months of issuance of the permit, and a subsequent visible emissions observation within 14 months, but not earlier than three months, after the preceding flare event visible emissions observation.

Condition 2, Incinerator Visible Emissions Standard and MR&R

Legal Basis: This visible emissions standard under 18 AAC 50.050(a) applies to the operation of any incinerator in Alaska, including an air curtain incinerator. The visible emission standard is included in the SIP approved by EPA, and 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 2 requires the Permittee to comply with the applicable visible emissions standard in 18 AAC 50.050(a). The Permittee shall not cause or allow the affected incinerator to violate this standard. The Permittee is required to monitor, record, and report according to Conditions 2.1 and 2.2.

Conditions 7 through 13, 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 through 8, 11 through 13, 16 through 18, 22, 23, Group B Snow Melters, Group B Heaters, Group C Heaters & Boilers, and Group C Turbines are fuel-burning equipment or industrial processes.

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 7 prohibits emissions in excess of the applicable state PM standard. MR&R requirements are listed in Conditions 8 through 10 and 11 through 13 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).

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.

Gas Fuel-Burning Equipment:

Monitoring – The monitoring of gas fuel-burning emissions units for PM is waived; i.e., no source testing will be required. The Department has found that natural gas fuel-burning equipment inherently has negligible PM emissions. However, the Department can request a source test for PM emissions from any smoking equipment.

Reporting – The Permittee must state in each operating report whether only gaseous fuels were used in the equipment during the period covered by the report.

Liquid Fuel-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 %

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.

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

EU IDs 8, 22, 23, Group B Snow Melters and Heaters, and Group C Turbines do not qualify as insignificant per 18 AAC 50.326(d)(1) because they are subject to operational limits

established under a Title I permit and standards established under NSPS IIII and NESHAP ZZZZ.

EU ID 23 is a TEG dehydration unit; thus, it has potential emissions less than the significant emissions thresholds in 18 AAC 50.326(e). Therefore, the Department has waived PM emissions monitoring for EU ID 23 but the unit is subject to compliance certification requirements, in accordance with Department Policy and Procedure No. 04.02.103, Topic #3.

For EU IDs 8, 22, Group B Snow Melters and Heaters, and Group C Turbines, no visible emissions monitoring is required when these emissions units are insignificant based on actual or potential emissions due to permit Condition 24 that limits their hours of operation or fuel consumption. As long as the emissions units operate within these limits, they are insignificant by emissions rate as specified in 18 AAC 50.326(e) and no monitoring is required in accordance with Department Policy and Procedure No. 04.02.103, Topic # 3. The Permittee must annually certify compliance under Condition 99 with the PM emissions standard based on reasonable inquiry.

Flares:

Monitoring of flares for PM is waived; i.e., no source testing is required, because of the difficulty and questionable results these tests produce when applied to flares. Compliance with the state visible emissions standard serves as surrogate compliance demonstration for the state particulate matter emissions standard.

Condition 14 through 19, 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 through 8, 11 through 13, 16 through 18, 22, 23, Group B Snow Melters, Group B Heaters, Group C Heaters & Boilers, and Group C Turbines are fuel-burning equipment or industrial processes.

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., coal, natural gas, fuel oils).

Liquid Fuels:

For the liquid fuel-burning equipment, EU IDs 6 through 8, 22, Group B Snow Melters and Heaters, and Group C Heaters, Boilers and Turbines, the MR&R conditions are SPCs XI and XII adopted into regulation pursuant to AS 46.14.010(e). Sulfur dioxide comes from the sulfur in the liquid, hydrocarbon fuel (e.g., diesel or No.2 fuel oil). Fuel sulfur testing will verify compliance. Fuel containing no more than 0.75 percent sulfur by weight will always comply with the emission standard. For fuels with a sulfur content higher than 0.75 percent, the condition requires the Permittee to use the equations in Section 12, or Method 19 of 40 C.F.R. 60, Appendix A-7, adopted by reference in 18 AAC 50.040(a)(3), to calculate the sulfur-dioxide concentration to show that the standard is not exceeded.

The Department has determined that the standard permit 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 the 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).

Gaseous Fuels:

Fuel sulfur testing will verify compliance with SO₂ emission standard. The Permittee must obtain a statement from the fuel supplier semiannually or conduct a semiannual analysis for fuel gas sulfur content using either ASTM D4084, D5504, D4810, D4913, D6228 or GPA Standard 2377, or a listed method approved in 18 AAC 50.035(b)-(c) and 40 C.F.R. 60.17 incorporated by reference in 18 AAC 50.040(a)(1).

The Permittee is required to report excess emissions whenever the fuel combusted causes sulfur compound emissions to exceed the standards in this condition. The Permittee is required to include copies of the records of semiannual statement from the fuel supplier or the sulfur content analysis with the stationary source operating report.

Conditions 20 through 32, 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: The operating permit contains preconstruction permit requirements from Construction Permit AQ0503CPT07 Revision 1 and Minor Permit AQ0503MSS04 for ambient air quality protection and BACT.

Ambient Air Quality Protection Requirements

The Permittee must provide unique identification and labels on each emissions unit, per Condition 20. The Permittee owns and operates significant number of fuel burning equipment on the North Slope. Labels allow for more accurate compliance tracking and monitoring by both the Department and the Permittee.

Condition 21 prohibits the Permittee from combusting used oil. The Permittee generates used oil in service and maintenance of equipment. Adding used oil to fuel supplies is a commonplace practice to dispose of used oil. This practice alters the fuel properties and contributes to changes in emission factors and is not approved by the Department at this source.

Stack height requirements on permanent emissions units must be complied with so ambient air quality standards and increments are not exceeded. Condition 22 specifies stack orientation and minimum stack height requirements.

Condition 23 sets fuel standards for the emissions units at Northstar Production Facility. Fuel sulfur standards protect ambient air quality. These limits are based on an ambient modeling assessment reviewed and approved by the Department. MR&R in accordance with the requirements for the state sulfur compound emissions standard is required.

Condition 24 specifies operating limits for several emissions units. As part of previous Prevention of Significant Deterioration (PSD) permit applications, the Permittee performed ambient air quality modeling analyses. The assumptions used in the model were codified as these operating limits to prevent emissions from exceeding those in the models. Conditions 0 and 26 provide MR&R for these operating limits.

BACT

Conditions 27 through 31 address BACT limits. BACT limits assigned for the entire stationary source at the time of the preconstruction permit affect the emissions units included in the permit inventory at that time. The Department revised the BACT limit conditions to clarify which emissions units were not part of the EU inventory at the time each BACT limit was set.

EU IDs 1 through 7 have NO_x BACT emission limits. Source testing for EU IDs 1 through 5 was last conducted on March 17, 2023. All tests showed compliance with the emission limits, so testing is required every 5 years. The Department database shows EU IDs 1 through 5 have a history of operating well over 400 hours per year. Therefore, the test exemption for units that operate less than 400 hours is not included in the renewal operating permit. If operating hours decrease during the term of Operating Permit AQ0503TVP04, the Permittee may request the exemption be added to the next operating permit. Operating Permit AQ0503TVP03 required EU IDs 6 or 7 to complete a NO_x source test because the previous test was conducted in 2003. The Permittee completed a source test on EU ID 6 on April 28, 2025. The Department is not continuing this source test requirement in Operating Permit AQ0503TVP04 on account of the low hours of operation. The Department may require recurring testing of EU IDs 6 or 7 in future operating permits, should annual operating hours increase or the duration between previous testing warrant a new test. The Permittee requested that the requirement for testing at different times of the year be removed from Condition 27.3.b(i) on account of the turbines having preheaters on the inlet air. The Department did not remove this requirement, because winter source testing is necessary to demonstrate compliance with the temperature shift, load levels, and power demands in winter.

The Department approved a request by the Permittee to align the NO_x and CO BACT source testing frequency with the source testing requirements of NSPS GG. Previously, the operating permit included gap-fill conditions including performing the source tests across a minimum of three loads, and for each test run to be at least one hour in length. The Department removed these requirements from Operating Permit AQ0503TVP04 after finding them to be duplicative or inconsistent with conditions elsewhere in the permit under NSPS GG.

EU IDs 1 through 8, 11, and 12 have CO BACT emission limits. Source testing for EU IDs 1 through 5 was last conducted on March 17, 2023. Testing for EU ID 2 showed compliance with the emission limits, so testing for EU IDs 1 and 2 is required every 5 years. The 400 hour exemption is not included as noted above for NO_x testing. The Department removed the CO source testing requirement for EU IDs 6 or 7 and 8 for the same reasons discussed above for EU IDs 6 and 7 for NO_x. EU IDs 11 and 12 meet the emission limit by operating the flares with air-assist or sonic design and smokeless flare technology. The Permittee must operate the

flares as required and keep a copy of the manufacturer's design parameters on site and make them available to Department personnel on request.

SO₂ BACT limits are fuel sulfur content limits. The current H₂S BACT limit was established in 2012 by Minor Permit AQ0503CPT06. The current diesel fuel sulfur content BACT limit was set in 2007 by Minor Permit AQ0503MSS01. MR&R in accordance with the requirements for the state sulfur compound emissions standard is required.

VOC BACT requires the use of control systems. The VOC BACT limits were first established in Construction Permit 9873-AC020 in 1999. The Permittee must operate and maintain the associated equipment and keep a log of preventative maintenance, surveillance activities, and repairs.

EU IDs 1 through 5 have a 10 percent opacity limit for PM₁₀ BACT. PM BACT limits were set in Construction Permit 9873-AC020. The BACT limit of 10% opacity was set for gas-fired EU IDs 1 through 5. The Department recognizes that well maintained gas-fired equipment inherently do not cause visible emissions. Therefore, visible emissions observation requirements are only triggered if visible emissions are observed. This BACT requirement is more stringent than the state PM standard for gas-fired equipment of 20% opacity. The Department has since waived the 20% opacity monitoring requirement for gas-fired equipment under the state emissions standard, but has elected to maintain the 10% opacity requirement for these units, as it is a BACT limit.

ORL to Avoid PSD Modification

Condition 32 is an ORL established in Minor Permit No. AQ0503MSS04, which limits HAP emissions from EU IDs 11, 12, 13, and 23 to 12 TPY and VOC emissions from EU IDs 11, 12, 13, and 23 to no less than 39 TPY. The Condition requires routing dehydrator gas from the reboiler and flash tank to the flare system. MR&R requirements are included in the condition.

Condition 33, 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 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 33.4.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 34 through 42, 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 Subparts GG and IIII 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 IDs 1 through 5 and 22 are subject to NSPS Subparts GG and IIII, respectively, and therefore subject to Subpart A.

Conditions 34.1 through 34.3 - The Permittee has already complied with the NSPS notification requirements. However, the Permittee is still 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 34.4 - 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 35 – The requirements in 40 C.F.R. 60.7(b) to maintain start-up, shutdown, or malfunction records are applicable to most NSPS affected facilities subject to Subpart A.

Conditions 36 and 37 - NSPS excess emission and monitoring systems performance report and summary report form in 40 C.F.R. 60.7(c) and (d) are applicable to an owner or operator required to or electing to install a continuous monitoring device to monitor EUs subject to an

³ *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.

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 C.F.R. 60.2.

NSPS emissions standard. Excess emissions are defined in applicable subparts. According to 40 C.F.R. 60.334(j) Subpart GG, periodically monitoring fuel sulfur content for compliance with Subpart GG SO₂ standard is a continuous monitoring system. Therefore, these reporting requirements apply to EU IDs 1 through 5 when monitoring under Condition 47.1.a. The Department has included in Attachment A of the statement of basis a copy of the federal EEMSP summary report form for use by the Permittee.

Condition 38 – The NSPS general recordkeeping requirements under 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. This requirement is satisfied by Condition 93, which requires at least five years of records retention, in accordance with 40 C.F.R. 71.6(a)(3)(ii)(B) adopted under 18 AAC 50.040(j)(4).

Condition 39 - The Permittee has already complied with the initial performance test requirements in 40 C.F.R. 60.8 for EU ID 22. 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 40 - Good air pollution control practices in 40 C.F.R. 60.11 are applicable to most NSPS affected facilities subject to Subpart A (EU IDs 1 through 5).

Condition 41 - The condition states that any credible evidence may be used to demonstrate compliance or to establish violations of relevant NSPS standards for EU IDs 1 through 5.

Condition 42 - Concealment of emissions prohibitions in 40 C.F.R. 60.12 are applicable to EU IDs 1 through 5 and 22.

The flare is not subject to 40 C.F.R. 60.18 because it is a safety device and not a control device. It does not control emissions from any NSPS regulated emissions units.

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 43 through 47, NSPS Subpart GG Requirements

Legal Basis: As stated in Condition 43 and in accordance with NSPS Subpart GG 40 C.F.R. 60.330(a) and (b), the subpart applies to stationary gas turbines with a heat input at peak load (maximum load at 60 percent relative humidity, 59 °F, and 14.7 psi) equal to or greater than 10.7 gigajoules (10 million Btu) per hour, based on the lower heating value of the fuel fired which commenced construction, modification, or reconstruction after October 3, 1977. EU IDs 1 through 5 meet these criteria and are therefore subject to these requirements.

Factual Basis: Conditions 44 and 47 incorporate the Subpart GG NO_x and SO₂ emissions standards applicable to EU IDs 1 through 5, as specified in 40 C.F.R. 60.332(a)(2) for NO_x, and 40 C.F.R. 60.333(b) for SO₂. The Permittee must not cause or allow EU IDs 1 through 5 to violate these standards.

Per Condition 47.1.b and pursuant to 40 C.F.R. 60.334(h)(3), the owner or operator may elect not to monitor the total sulfur content of the gaseous fuel combusted in the turbine if the gaseous fuel is demonstrated to meet the definition of natural gas in 40 C.F.R. 60.331(u),

regardless of whether an existing custom schedule approved by the Administrator requires such monitoring. Custom sulfur monitoring schedules set forth in 40 C.F.R. 60.334(i)(3)(i)(A) through (D) and 60.334(i)(3)(ii) are acceptable without prior Administrative approval.

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

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

Where:

STD_{NO_x} = allowable ISO corrected (if required as given in §60.335(b)(1)) NO_x emission concentration (percent by volume at 15 percent oxygen and on a dry basis)

Y = manufacturer's rated heat rate at manufacturer's rated load (kilojoules per watt hour) or, actual measured heat rate based on lower heating value of fuel as measured at actual peak load for the facility. The value of Y shall not exceed 14.4 kilojoules per watt hour, and

F = NO_x emission allowance for fuel-bound nitrogen, percent by volume assumed to be zero for distillate fuel oil and gaseous fuels.

Based on the manufacturer's heat rating at manufacturer's rated peak load, and assuming fuel bound nitrogen of zero, the NO_x standard is 220 ppmv for EU IDs 1 and 2 and 172 for EU IDs 3 through 5.

SO₂ Standard: To demonstrate compliance with the Subpart GG SO₂ standard, the Permittee is required to comply with one of the following options:

- (1) do not cause or allow SO₂ emissions in excess of 0.015 percent by volume, at 15 percent O₂ and on a dry basis (150 ppmv); or
- (2) do not cause or allow the sulfur content for the fuel burned in EU IDs 1 through 5 to exceed 0.8 percent by weight.

The Permittee elected to limit the fuel sulfur content, as described in option 2.

Condition 45, NO_x Monitoring, Recordkeeping, and Reporting

Legal Basis: Conditions 45.1 through 45.3 includes periodic monitoring, recordkeeping, and reporting requirements for all turbines that normally operate for greater than 400 hours in a 12-month period. These additional MR&R requirements are necessary to ensure that turbine emissions comply with the NSPS Subpart GG NO_x standard and is required under 40 C.F.R. 71.6(a)(3) as the subpart does not contain MR&R sufficient for an operating permit.

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

The Department may determine that to assure compliance it is necessary to retain or increase the current monitoring frequency.

These conditions do not include the initial NSPS performance test requirements as the Subpart A conditions cover these requirements. If an existing or new turbine under this permit is still subject to the performance test requirement of 40 C.F.R. 60.8, the requirement is covered under the Subpart A related conditions.

The intent of these conditions is that turbines or groups of turbines be routinely tested on no less than a 5-year cycle. If the most recent performance test on a turbine showed NO_x emissions at less than or equal to 90 percent of the more stringent of limits shown in Condition 44, then periodic monitoring is required at the first applicable of three criteria: either within 5 years of the last performance test, or within a year of the effective date of the permit, or within a year of exceeding 400 hours of operation within a 12-month period. For clarification, the Department added a 6 month cut-off date for triggering source testing within 1 year after permit effective date in accordance with Condition 45.1.a(i)(B). The 6-month trigger identifies when Condition 45.1.a(i)(C) would be enacted to require source testing within 1 year of triggering 400 hours. This ensures that a unit would not appear to be out of compliance with Condition 45.1.a(i)(B) once it finally triggered Condition 45.1.a(i)(C). If the most recent performance test showed operations at greater than 90 percent of the more stringent of the NO_x limits, then periodic monitoring source testing is required every year until two consecutive tests show emissions at less than or equal to 90% of that limit.

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

Subpart GG defines “emergency gas turbine” and exempts turbines meeting that definition from the Subpart GG NO_x emission standards. Some turbines may be operated as standby equipment but not meet the definition of emergency turbine, so the Department has added a Method 20, or Method 7E and either Method 3 or 3A, monitoring threshold of 400 hours per 12-month period. For turbines expected to operate less than 400 hours the Department has also added recordkeeping for hours of operation. The Department does not intend to require the Permittee to operate a turbine solely for the purpose of testing.

The condition requires testing at a range of loads, consistent with the performance test requirements in Subpart GG, that is, test at 30, 50, 75, and 90-to-100 percent load. If testing at these four loads is not reasonable, the condition allows the Permittee to propose to the Department what test loads will be reasonable and adequate, and the Department will have the responsibility to make a finding on that proposal. If EPA has already approved alternative test loads for the initial performance test the Department would allow those test loads if the information that went into that decision were still representative of the turbine operation.

In Condition 45.1.b(ii)(C)(4), the Department considers “fuel type” to mean, for liquid fuels a type of fuel as described in an ASTM or similar fuel specification.

Load measurements or load calculations from load surrogate measurements are for one-hour periods. The intent is to match the averaging period for the test method. Method 20 refers to Method 7E, which identifies a number of traverse points that vary based on the stratification test at a stack. From these points the tester is to conduct the NO_x measurements. The time at each point is to be at least one minute plus the average response time of the instrument. The recorded value is the average steady state response. Presumably, the steady state response would exclude some or all of the response time of the instrument. Three runs are to be done at each test load.

The three runs would represent 24 minutes of measurement time or more. A one-hour average load is therefore a reasonable approximation of a load period corresponding to the test method.

Condition 47, SO₂ Monitoring, Recordkeeping, and Reporting

Legal Basis: Monitoring, recordkeeping, and reporting requirements for this condition are described in NSPS Subpart GG and have been referenced here. These MR&R requirements are necessary to ensure that turbine emissions comply with the Subpart GG SO₂ standard, as required under 40 C.F.R. 71.6(a)(3) and in accordance with corresponding MR&R requirements provided under NSPS Subpart GG.

Factual Basis: Conditions 47.1 through 47.4 includes periodic monitoring, recordkeeping, and reporting requirements for all turbines subject to the NSPS Subpart GG SO₂ emissions standards. No additional monitoring outside of the Subpart GG requirements is necessary to ensure compliance with the Subpart GG SO₂ standard.

Monitoring: Condition 47.1 incorporates NSPS Subpart GG fuel sulfur monitoring requirements. The Permittee may demonstrate compliance with the Subpart GG SO₂ standard by either periodically monitoring the total sulfur content of the gaseous fuel being fired in the affected turbine (as described in Condition 47.1.a) or by demonstrating that the gaseous fuel burned at the stationary source meet the definition of natural gas in 40 C.F.R. 60.331(u) using representative fuel sampling data, as described in Condition 47.1.b.

Recordkeeping: The Permittee is required to maintain records of all sulfur monitoring data required by NSPS Subpart GG for five years as specified in Condition 93.

Reporting: NSPS Subpart GG SO₂ reporting requirements are incorporated in the permit in Condition 47.4.a. For the purpose of the EEMSP report (Condition 36) and summary report (Condition 37) required under 40 C.F.R. 60.7(c), report daily periods during which the sulfur content of the fuel being fired in the turbine exceeds 0.8 percent as excess emissions. As stated in Condition 102.1, reports are to be submitted to the Department and EPA, and summarized in the operating report required under Condition 98. If the Permittee has demonstrated that the gaseous fuel burned at the stationary source meets the definition of “natural gas” in 40 C.F.R. 60.331(u), as set out by Condition 47.1.b, then the reporting requirements under Condition 47.4.a do not apply. The Department added Condition 47.4.b to gap-fill reporting requirements if the Permittee elects to comply with Condition 47.1.b.

Conditions 48 through 53, 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 ID 22 is a certified firewater pump emergency engine. This EU meets the applicability criteria of Subpart IIII under 40 C.F.R. 60.4200(a)(2)(ii).

Factual Basis: These conditions incorporate the Subpart IIII emissions standards applicable to EU ID 22. The Permittee may not cause or allow these emissions units to violate these standards. These conditions also provide MR&R specifically called out for the EUs within the Subpart. The Permittee is required to operate and maintain the stationary CI ICE 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 (L/cyl), and location. Some of this information are provided in Table A of the permit.

EU ID 22 does not need and is not equipped with a diesel particulate filter to comply with the applicable PM standard. Therefore, the provisions regarding diesel particulate filter in 40 C.F.R. 60.4209(b) and 60.4214(c) are not included in the permit.

Because the stationary source location meets the definition of "remote Alaska" in 40 C.F.R. 60.4219, the applicable standards and MR&R requirements for EU ID 22 are rooted from the provisions under 40 C.F.R. 60.4216 that specifically address engines used in remote Alaska. In particular, 40 C.F.R. 60.4216(c) allows the Permittee to comply with the applicable emission standards for emergency engines in 40 C.F.R. 60.4202 and 60.4205, and not those for non-emergency engines in 40 C.F.R. 60.4201 and 60.4204, whether the unit is operated as emergency or non-emergency CI ICE. Specific standards and requirements applicable to emergency fire pump engines are specified in 40 C.F.R. 60.4205(c) and Table 4 to Subpart IIII.

EU ID 22 is certified to meet the stricter Tier 3 standards [specified in 40 C.F.R. 60.4201(a), and 40 C.F.R. 1039, Appendix I, Table 3], as shown in Condition 50.1. Because the emergency engine EU ID 22 is certified to meet the standards that meet the corresponding applicable non-emergency standards for the same model year and maximum engine power, the requirements to install a non-resettable hour meter and associated recordkeeping requirements for emergency and nonemergency operational hours are not included in the conditions, in accordance with 40 C.F.R. 60.4209(a) and 60.4214(b). However, as an emergency engine, EU ID 22 is still subject to the applicable requirements specified in 40 C.F.R. 60.4211(f), as shown in Condition 51.4. More plainly, EU ID 22 is not required to record hours in emergency usage, but is still required to follow hour limits for non-emergency usage.

The Department added Condition 52 to gap-fill the operating and excess emissions and permit deviation reporting requirements.

The NSPS GAPCP requirements provided in 40 C.F.R. 60.4211(a), as reflected in Condition 49, suffices the State GAPCP requirement under 18 AAC 50.346(b)(5). MR&R requirements are provided in Conditions 51 through 52. Provisions for importing or installing stationary CI ICE in previous model years required under 40 C.F.R. 60.4208 are provided in Condition 53.

The provisions of NSPS Subpart III listed in Conditions 48 through 53 are current as amended through August 30, 2024. 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 54, 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 Subparts HH and 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 2 to NESHAP Subpart HH and 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 55 through 59, NESHAP Subpart HH 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 HH applies to triethylene glycol (TEG) dehydration units located at oil and natural gas production facilities that are area sources of HAP emissions. EU ID 23 is a TEG dehydration unit located at an area source oil and natural gas production facility.

Factual Basis: These conditions incorporate the current (as amended through October 22, 2024) NESHAP Subpart HH requirements applicable to EU ID 23. The stationary source is not located within a UA plus offset and UC boundary (as defined in 40 C.F.R. 63.761). The Permittee is exempt from the requirements of 40 C.F.R. 63.764(d)(2)(i) through (iii) if the actual annual average flowrate of natural gas to the glycol dehydration unit is less than 85 thousand standard cubic meters per day (3 MMscfd) or the actual average emissions of benzene from the glycol dehydration unit process vent to the atmosphere is less than 0.90 megagrams per year (1 TPY). The Permittee is required to keep records of the annual average flowrate and/or actual average benzene emissions.

Conditions 60 through 64, 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. Northstar Production Facility is an area source that owns and operates RICE units, EU IDs 6 through 8 and 22, subject to NESHAP Subpart ZZZZ.

Factual Basis: These conditions incorporate the current (as amended through August 30, 2024) NESHAP Subpart ZZZZ requirements applicable to the existing stationary RICE, EU IDs 6 through 8. Northstar Production Facility is located in an area of Alaska that is not accessible by the Federal Aid Highway System (FAHS). Per 40 C.F.R. 63.6603(b)(1), existing non-emergency compression ignition (CI) RICE rated greater than 300 hp (as in the case of EU IDs 6 through 8) located at area sources that are not accessible by the FAHS do not have to meet the numerical CO emission limitations (therefore, no operational limitations apply as well) under Subpart ZZZZ but must meet the work and management practices for stationary non-emergency CI RICE with a rating of less than or equal to 300 hp as specified in Table 2d item 1.

For EU IDs 6 through 8, the Permittee is required to perform inspections and maintenance at intervals specified by the subpart (see Conditions 62.1 through 62.4); as well as, comply with the NESHAP GAPCP requirements, as reflected in Condition 61, 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 63. The reporting requirements are provided in Condition 64. 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 64.2.

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 60 through 64 are current as amended through August 30, 2024. 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 65, 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 66 through 68, 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 66 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.

Conditions 67 and 68 also require compliance with the applicable requirement adopted under 18 AAC 50.040(d). Condition 67 prohibitions apply to all stationary sources that use substitutes for ozone-depleting compounds. Condition 68 prohibitions apply to all stationary sources that use halon for extinguishing fires and inert gas to reduce explosion risk. These conditions prohibit the Permittee from causing or allowing violations of these requirements. The Northstar Production Facility uses halon and is therefore subject to the federal regulations contained in 40 C.F.R. 82.

Factual Basis: These conditions incorporate applicable 40 C.F.R. 82 requirements. 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 69, 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 70 through 72, 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 73, 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 74 and 75, 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.

The Department has modified Condition 74 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 76, Good Air Pollution Control Practice

Legal Basis: This condition requires compliance with the requirements in 18 AAC 50.346(b)(5) and applies to all emissions units, **except** those subject to an emission standard in 40 C.F.R. 60, 61, or 63, those subject to continuous emission or parametric monitoring requirements, and insignificant emissions units; i.e., except EU IDs 1 through 8, 9c, 13, 16 through 18, 22 through 25, Group B Crane, Snow Melters, and Heaters, and Group C IC Engines and Turbines.

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

The Department adopted this condition under 18 AAC 50.346(b) as SPC VI pursuant to AS 46.14.010(e). Records kept in accordance with Condition 76.2 for units subject to GAPCP need to be maintained for 5 years in accordance with Condition 93 even if a unit is no longer subject to this condition.

Maintaining and operating equipment in good working order is fundamental to preventing unnecessary or excess emissions. Standard conditions for monitoring compliance with

emission standards are based on the assumption that good maintenance is performed. Without appropriate maintenance, equipment can deteriorate more quickly than with appropriate maintenance. If appropriate maintenance is not applied to the equipment, the Department may have to apply more frequent periodic monitoring requirements (unless the monitoring is already continuous) to ensure that the monitoring results are representative of actual emissions.

The Permittee is required to keep maintenance records to show that proper maintenance procedures were followed, and to make the records available to the Department. The Department may use these records as a trigger for requesting source testing if the records show that an adequate maintenance schedule is not maintained.

Condition 77, 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 78, 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 79, 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 emissions unit or stack would need to be modified to accommodate stack injection.

Condition 80, 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 81, 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 97. Excess emission reporting under Condition 97 requires information on the steps taken to minimize emissions. Monitoring of compliance for this condition consists of the report required under Condition 97.

Condition 82, 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 82.1 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 99.

Condition 83, 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 84 through 86, Operating Conditions, Reference Test Methods, Excess Air Requirements

Legal Basis: Conditions 84 and 86 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 85 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 84 through 86.

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

Condition 87, 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 88 through 91, Test Deadline Extension, Test Plans, Notifications and Reports

Legal Basis: Condition 88 contains the requirement in 18 AAC 50.345(l), while Conditions 89 through 91 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 92, 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 93, 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 93 satisfies both 40 C.F.R. 60.7(f) and 40 C.F.R. 71.6(a)(3)(ii).

Condition 94, 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 97 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 95, 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 96, 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 97 and Section 13, Excess Emission and Permit Deviation Reports and Notification Form

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.

Except as noted in the last paragraph, the Department used the language in SPCs III and IV, 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 13).

The Department has modified Condition 97.3 and the Notification Form in Section 13 to reflect the electronic submittal requirements in 18 AAC 50.270 using the Department's online form to submit notification of excess emissions and permit deviations beginning September 7, 2023. The electronic notification form is found at the Division of Air Quality's Air Online Services (AOS) system webpage <http://dec.alaska.gov/applications/air/airtoolsweb> using the Permittee Portal option. Submittal through other methods may be allowed only upon written Department approval. 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 98, 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 99, 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 99.2 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 100, 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 shown in Condition 100.1 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 in Condition 100.1 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 100.2. As of the issue date of this permit, the Northstar Production Facility is required to report under Condition 100.1.

The Department has modified the triennial reporting requirements under Condition 100.2 by including stationary sources' PTEs that are below the thresholds for annual reporting in Condition 100.1, 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 101, Consistency of Reporting Methodologies

Legal Basis: Condition 101 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 101.1 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 100 or assessable emissions under Condition 74.2, consistent emission factors and calculation methods shall be used for all reporting requirements for the stationary source.

Condition 102, 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 103, Federal Electronic Reporting Allowance

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 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 electronic reporting provisions in Condition 103 is a general advisory option for stationary sources subject to federal rules to facilitate and streamline reporting requirements, in lieu of paper or email format. It reflects the EPA notice in the Federal Register (Vol. 89, No. 186, page 78300) on September 25, 2024. The notice announces the EPA's allowance for affected facilities to electronically submit reports, notifications, or other submission types to CEDRI, consistent with the provisions of the Cross-Media Electronic Reporting Rule (CROMERR), codified under 40 C.F.R. 3. CROMERR establishes electronic reporting as an acceptable regulatory alternative to paper reporting and establishes requirements to assure that electronic documents are as legally dependable as their paper counterparts. The submittals must be in acceptable digital formats. *Acceptable digital formats* are file types that are compatible with CEDRI or other EPA electronic document receiving system that the Administrator may designate.

Condition 104, 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. Condition 104.2 lists the methods, in EPA's preferred order, to which the applicant may submit the application documents, as specified in the EPA's February 12, 2024 memorandum guidance for Submitting Air Permits to EPA Region 10. 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 105 through 107, 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 106 and 107, respectively, specify changes that may be made without a permit revision, and 40 C.F.R. 71.6(a)(8) (Condition 105) 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 105.

Condition 108, 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 109 through 114, 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 115 and 116, 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 D of Operating Permit No. AQ0503TVP04 shows the permit shield that the Department granted to the Permittee. The following table shows the requests that were

denied and the reasons that they were denied. The Department based the determinations on the permit application, past operating permit, Title I permits, and inspection reports. Should any of the shielded requirements become applicable during the permit term, the Permittee is required to take necessary steps to comply with all applicable requirements in a timely manner.

Table H - Permit Shields Denied

Shield Requested for:	Reason for Shield Request:	Reason for Denial
40 C.F.R. 63 Subpart JJJJJ	EU IDs 13 and 16 through 18 are gas-fired as defined in 40 C.F.R. 63.11237 and are not subject per 40 C.F.R. 63.11195(e).	A permit shield was requested and granted for the entire stationary source. A permit shield is not additionally necessary for individual emissions units.
40 C.F.R. 60 Subpart K	EU IDs 24 and 25 commenced construction after the applicability date of May 19, 1978.	A permit shield was requested and granted for the entire stationary source. A permit shield is not additionally necessary for individual emissions units.
40 C.F.R. 60 Subpart Ka	EU IDs 24 and 25 commenced construction after the applicability date of July 23, 1984.	A permit shield was requested and granted for the entire stationary source. A permit shield is not additionally necessary for individual emissions units.
40 C.F.R. 60 Subpart Kb	Subpart Kb does not apply to storage vessels greater than 151 m ³ storing a liquid with a maximum true vapor pressure less than 3.5 kilopascals (kPa) or a capacity greater than 75 m ³ but less than 151 m ³ and with a maximum true vapor pressure less than 15.0 kPa.	A permit shield was requested and granted for the entire stationary source. A permit shield is not additionally necessary for individual emissions units.
40 C.F.R. 60 Subpart Kc	EU IDs 24 and 25 commenced construction prior to applicability date of October 4, 2023 and have not been modified or reconstructed thereafter.	A permit shield was requested and granted for the entire stationary source. A permit shield is not additionally necessary for individual emissions units.
40 C.F.R. 60 Subparts D, Da, Db, & Dc	Group B – Portable Equipment, Snow Melters and Heaters & Group C – Intermittent Well Servicing Equipment, Diesel-Fired Heaters and Boilers are not stationary sources.	A permit shield was requested and granted for the entire stationary source. A permit shield is not additionally necessary for individual emissions units.
40 C.F.R. 63 Subpart JJJJJ	Group B – Portable Equipment, Snow Melters and Group C – Intermittent Well Servicing Equipment, diesel heaters and boilers meet the definition of temporary boiler and are not subject per 40 C.F.R. 63.11195.	A permit shield was requested and granted for the entire stationary source. A permit shield is not additionally necessary for individual emissions units.
40 C.F.R. 63 Subpart JJJJJ	Group B- Portable Equipment, Heaters are not boilers as defined in 40 C.F.R. 63.11237.	A permit shield was requested and granted for the entire stationary source. A permit shield is not additionally necessary for individual emissions units.
40 C.F.R. 60 Subpart EEEE	EU ID 9c is excluded from the subpart as a commercial and	The exemption criteria in 40 C.F.R. 60.2887(d) specifies that a unit is

Shield Requested for:	Reason for Shield Request:	Reason for Denial
	industrial solid waste incinerator unit per 40 C.F.R. 60.2887(d).	excluded from Subpart EEEE if it is regulated under Subpart CCCC and is required to meet the emission limitations in Subpart CCCC. EU ID 9c is not regulated by Subpart CCCC. The unit must be subject to CISWI to claim the exemption under 60.2887(d). EU ID 9c is exempt from Subpart EEEE because it qualifies as a small remote incinerator. Until December 29, 2025, small remote incinerators are not considered under Subpart EEEE to be very small municipal waste combustion units, which are a regulated incinerator type.

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 _____	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 duration of excess emissions _____	2. Total CMS Downtime _____
3. Total duration of excess emissions x (100) / [Total source operating time] % ²	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: _____