

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

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**Hilcorp North Slope, LLC
Crude Oil Topping Unit**

**STATEMENT OF BASIS
for
Permit No. AQ0265TVP04**

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INTRODUCTION

This document sets forth the statement of basis for the terms and conditions of Operating Permit No. AQ0265TVP04.

STATIONARY SOURCE IDENTIFICATION

Section 1 of Operating Permit No. AQ0265TVP04 contains information on the Crude Oil Topping Unit (COTU) as provided in the Title V permit application.

COTU is owned by Hilcorp North Slope, LLC (Hilcorp), Chevron USA Inc., ConocoPhillips Alaska, Inc., and ExxonMobil Alaska Production, Inc. Hilcorp North Slope, LLC is the Operator and Permittee for the operating permit. The standard industrial classification (SIC) code for COTU is 1311 - Crude Petroleum and Natural Gas.

COTU is located in Prudhoe Bay approximately two miles north-northeast of Deadhorse, Alaska. COTU produces Arctic Heating Oil (similar to diesel fuel) and jet A fuel using a distillation process and distributes natural gas to the Prudhoe Bay Operations Center (PBOC). The Arctic Heating Oil is distributed to many of the oil producing facilities on the Alaska North Slope. COTU receives crude oil from Flow Station 2 (FS-2), by way of the pipeline from FS-2 to the Alyeska Pipeline Service Company Pump Station 1. COTU is composed of two process units: Train #1 built in 1969 and Train #2 built in 1975. Both trains heat and fractionate crude oil into fuel and residuals. Two sales facilities located next to COTU and the Main Construction Camp (MCC) distribute fuel in retail amounts for mobile equipment and in bulk amounts for deliveries to rigs, well work operations, non-unit users, and production facilities (COTU Fuel Terminal 1). Residuals are reinjected into the pipeline from FS-2 to the Alyeska Pipeline Service Company Pump Station 1.

COTU, PBOC, and MCC are considered one stationary source for purposes of determining source classification under 18 AAC 50.326, 50.306, and 50.502 (i.e., Title V and Title I permitting). The stationary source also includes a modular living facility known as the Tarmac Camp, which is located on the same gravel pad as the COTU and PBOC. Multiple operating permits have been issued to the stationary source under the authority of AS 46.14.190(b). The emissions units at PBOC and MCC operate under a separate operating permit from the emissions units at COTU. The permit terms and limits in the operating permit for COTU represent only those permit terms and limits applicable to the COTU portion of the stationary source.

The facilities are aggregated because they either share the same gravel pad (COTU, PBOC, and Tarmac Camp) or are located on adjacent/nearby pads (MCC compared to COTU, PBOC, and Tarmac Camp).

EMISSIONS UNIT INVENTORY AND DESCRIPTION

Under 18 AAC 50.326(a), the Department requires operating permit applications to include identification of all emissions-related information, as described under 40 CFR 71.5(c)(3).

The emissions units at COTU that have specific monitoring, recordkeeping, and reporting requirements are listed in Table A of the operating permit. Table A contains information on the emissions units regulated by the operating permit as provided in the permit application. The table

is provided for informational and identification purposes only. Specifically, the emissions unit rating/size provided in the table does not create an enforceable limit.

EMISSIONS

A summary of the potential to emit (PTE)¹ and assessable PTE for COTU is shown in the table below. The PTE for PBOC/MCC is addressed and can be found in the statement of basis for the operating permit for PBOC/MCC (currently Operating Permit AQ0274TVP02).

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

Emissions	NO _x	CO	PM ₁₀	SO ₂	VOC	CO _{2e} ¹	HAPs	Total ²
PTE	33.19	47.24	2.70	6.07	65.76	41,992	7.51	154.96
Assessable PTE	33.19	47.24	2.70	6.07	65.76	0	0	154.96

Table Notes:

- ¹ CO_{2e} emissions are defined as the sum of the mass emissions of each individual GHG adjusted for its global warming potential.
- ² Total PTE and total assessable PTE shown in the table do not include CO_{2e} and HAPs. HAPs are not included because all significant HAPs are also VOCs.

The assessable PTE listed under Condition 45.1 is the sum of the PTE of each individual air pollutant, other than greenhouse gases (GHGs), for which COTU has the potential to emit. The emissions listed in Table C are estimates that are for informational use only. The listing of emissions does not create an enforceable limit.

The Department calculated SO₂ PTE for EU ID E1 using a fuel sulfur content of 0.5 weight percent since there is no limit for fuel sulfur content. Otherwise, criteria pollutant, GHG, and HAP emissions are as provided in the operating permit application.

NO_x and CO PTE for the total combined stationary source (COTU/PBOC/MCC) is greater than 100 tpy. HAP PTE for the total combined stationary source is less than 10 tpy. Therefore, the stationary source is not a major source of HAPs.

BASIS FOR REQUIRING AN OPERATING PERMIT

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

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

- A major source;

¹ *Potential to Emit* or PTE means the maximum capacity of a stationary source to emit a pollutant under its physical or operational design. Any physical or operational limitation on the capacity of the source to emit a pollutant, including air pollution control equipment and restrictions on hours of operation or on the type or amount of material combusted, stored, or processed, shall be treated as part of its design if the limitation or the effect it would have on emissions is federally enforceable. Secondary emissions do not count in determining the potential to emit of a stationary source, as defined in AS 46.14.990(22).

² *Title V source* means a stationary source classified as needing a permit under AS 46.14.130(b) [ref. 18 AAC 50.990(111)].

- A stationary source, including an area source, subject to federal New Source Performance Standards (NSPS) under Section 111 of the Clean Air Act or National Emission Standards for Hazardous Air Pollutants (NESHAP) under Section 112 of the Clean Air Act;
- Another stationary source designated by the Federal Administrator by regulation.

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

AIR QUALITY PERMITS

Permits to Operate

The Department did not issue any air quality control permits to operate for COTU.

Title I (Construction and Minor) Permits

The Department has not issued any construction or minor permits for COTU.

Title V Operating Permits

Operating Permit No. AQ0265TVP01. The Department issued this permit on July 29, 2002.

Operating Permit No. AQ0265TVP02. The Department issued this permit on January 22, 2010.

Operating Permit No. AQ0265TVP03. The Department issued this permit on January 4, 2019.

- Revision No. 1. The Department issued an administrative permit amendment on July 1, 2020 to include Hilcorp North Slope, LLC as an owner and the Permittee.

The Department received the application for Operating Permit AQ0265TVP04 on July 3, 2023.

COMPLIANCE HISTORY

COTU has operated at its current location since 1969.

Three flare opacity exceedances were reported in 2019 and another in 2020. Corrective action was taken in each instance and the compliance case was closed with no further action required.

Review of the remaining 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 CFR Part 71.2 defines “applicable requirement” to include the terms and conditions of any preconstruction permit issued under rules approved in Alaska’s State Implementation Plan (SIP).

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

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

There are no pre-construction permit conditions for COTU since none of the types of permits listed above have been issued for COTU.

NON-APPLICABLE REQUIREMENTS

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

- **40 CFR 63 Subpart CC:** Although the stationary source produces arctic heating oil and jet A fuel using a distillation process, the provisions of this subpart are not currently applicable because the plant site is not a major source as defined in section 112(a) of the Clean Air Act.
- **40 CFR 63 Subpart UUU:** Although the stationary source produces arctic heating oil and jet A fuel using a distillation process, the provisions of this subpart are not currently applicable because the stationary source is not a major source of HAP emissions.

STATEMENT OF BASIS FOR THE PERMIT CONDITIONS

The Department adopted regulations from 40 CFR 71, as specified in 18 AAC 50.040(j), in addition to creating state regulations, to establish an operating permit program. The EPA fully approved the Alaska Operating Permit Program on November 30, 2001, as noted in Appendix A to 40 CFR 70. This Statement of Basis, required under 40 CFR 71.11(b), provides the legal and factual basis for each condition of Operating Permit No. AQ0265TVP04. Additionally, and as required by 40 CFR 71.6(a)(1)(i), the state and federal regulations for each permit condition are cited in the permit.

Conditions 1 through 5, 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 E1, F1, F2, H1, H2, and H4 are fuel-burning equipment or industrial processes.

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

Factual Basis: These conditions prohibit the Permittee from causing or allowing visible emissions in excess of the applicable standard in 18 AAC 50.055(a)(1) and specify MR&R requirements. These conditions have been adopted into regulation as Standard Permit Condition (SPC) IX. The Department has modified SPC IX for Operating Permit AQ0265TVP04, as follows:

- The Permittee has opted not to use the Smoke/No Smoke Plan and requested that this option not be included in the permit, so the Department did not include this provision in the permit.

The Permittee must establish by visual observations 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 standards for visible emissions. These conditions detail a stepwise monitoring program to determine compliance with the applicable state visible emissions standard. Equipment types covered by these conditions are internal combustion engines, turbines, heaters, boilers, and flares. Initial monitoring frequency schedules are established along with subsequent reductions or increases in frequency depending on the results of the self-monitoring program. Reasonable action thresholds are established in these conditions that require the Permittee to progressively address potential visible emission problems from emissions units through maintenance programs and/or more rigorous tests that will quantify whether a specific emission standard has been exceeded.

Gas Fuel-Burning Equipment:

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

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

Liquid Fuel-Burning Equipment:

Monitoring – The emissions unit exhaust must be observed by the Method 9 Plan. Corrective actions such as maintenance procedures or more frequent observations may be required depending on the results of the observations.

In accordance with 18 AAC 50.326(d)(1), EU ID E1 does not qualify as insignificant because it is subject to a federal requirement in 40 CFR 63 Subpart ZZZZ. This unit is otherwise insignificant because it is a small, intermittently operated, standby air compressor with actual emissions less than the significant emissions thresholds in 18 AAC 50.326(e). Therefore, the Department has waived the requirement for visible emissions observations for EU ID E1 in accordance with Department Policy and Procedure No. 04.02.103, Topic #3. Visual emissions observations must be conducted if any actual emissions exceed the thresholds in 18 AAC 50.326(e) at any point during the term of the operating permit.

Recordkeeping – The Permittee is required to record the results of all visible emissions observations.

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.

Flares:

The Department developed a standardized version of flare monitoring that is not dependent upon the type or design of upstream equipment. It has been claimed that gas-fired flares normally burn without emitting visible emissions. However, gas-fired 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.

Monitoring for EU ID F2 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.

EU ID F1 is subject to the requirements of 40 CFR 60.18. Monitoring, recordkeeping, and reporting requirements in 40 CFR 60.18 are used to demonstrate compliance with the State visible emissions standard.

Conditions 6 through 9, Particulate Matter Standard and MR&R

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

- 18 AAC 50.055(b)(1) applies to the operation of fuel-burning equipment and industrial processes. EU IDs E1, F1, F2, H1, H2, and H4 are fuel-burning equipment or industrial processes.

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

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

The Permittee must establish by visual observations, which may be supplemented by other means (e.g., a defined stationary source operation and maintenance program), that the stationary source is in continuous compliance with the state's emission standards for particulate matter.

Gas Fuel-Burning Equipment:

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

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

Liquid Fuel-Burning Equipment:

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

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

This means that the trend line for the complete data set predicts that 20% opacity corresponds to a little less than the PM limit for an 18-inch stack. There may be engines that exceed the thresholds, but the intent of the standard condition is not to guarantee that each engine that might exceed the PM standard will be tested. The Department expects few, if any, engines to actually be tested under this condition. What the Department does expect is that with the adopted condition in place, operators that find an opacity above or near the testing threshold will take corrective action necessary to reduce PM emissions. This would achieve the desired environmental outcome without the added cost of testing. The Department expects this to be the case with both thresholds.

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

In accordance with 18 AAC 50.326(d)(1), EU ID E1 does not qualify as insignificant because it is subject to a federal requirement in 40 CFR 63 Subpart ZZZZ. This unit is otherwise insignificant because it is a small, intermittently operated, standby air compressor with actual emissions less than the significant emissions thresholds in 18 AAC 50.326(e). Therefore, the Department has waived the monitoring requirements for EU ID E1 in accordance with Department Policy and Procedure No. 04.02.103, Topic #3. Monitoring must be conducted if any actual emissions exceed the thresholds in 18 AAC 50.326(e) at any point during the term of the operating permit.

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

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

Flares:

Monitoring of gas-fired flares for particulate matter 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 a surrogate compliance demonstration for the state particulate matter emissions standard.

Conditions 10 through 16, Sulfur Compound Emissions Standard and MR&R

Legal Basis: These conditions require 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 E1, F1, F2, H1, H2, and H4 are fuel-burning equipment or industrial processes.

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

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

Liquid Fuels:

For liquid fuel-burning equipment, the MR&R conditions are SPCs XI and XII, adopted into regulation pursuant to AS 46.14.010(e). SPC XI states the condition applies to any emissions unit capable of burning liquid fuel. Therefore, SPC XI and XII apply to EU ID E1.

Gaseous Fuels:

Fuel sulfur testing must be conducted to determine compliance with the SO₂ emission standard. The Permittee must conduct a semiannual analysis (and upon a change in fuel supply) 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) or 40 CFR 60.17 incorporated by reference in 18 AAC 50.040(a)(1). The Permittee may use the continuous monitoring system under Condition 29.2 for refinery fuel gas.

The Permittee is required to report excess emissions whenever the fuel combusted causes sulfur compound emissions to exceed the sulfur compound emissions standard. The Permittee is required to include copies of the records of the sulfur content analyses with the operating report.

Condition 17, Insignificant Emissions Units

Legal Basis: The Permittee is required to meet the state emission standards in 18 AAC 50.055 for all industrial processes and fuel-burning equipment regardless of size. As previously noted, 18 AAC 50.055 is contained in the federally approved SIP. The Department also added permit conditions for MR&R as required by 40 CFR 71.6(a)(3) and 71.6(c)(1).

Factual Basis: The condition requires insignificant emissions units to comply with the state emission standards for visible emissions, particulate matter emissions, and sulfur-compound emissions. Insignificant emissions units are not generally listed in operating permits unless specific monitoring, recordkeeping and reporting are necessary to ensure compliance. However, the Permittee may not cause or allow insignificant 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. The conditions require certification based on reasonable inquiry that the units did

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

Conditions 18 through 27, 40 CFR 60 Subpart A Requirements

Legal Basis: New Source Performance Standard³ (NSPS) requirements in 40 CFR 60 are included in the applicable requirement definition under 40 CFR 71.2, which has been adopted by the Department under 18 AAC 50.040(j)(1). The provisions of 40 CFR 60 apply to the owner or operator of any stationary source which contains an affected facility⁴, the construction or modification of which is commenced after the date of publication in 40 CFR 60 of any standard (or, if earlier, the date of publication of any proposed standard) applicable to that facility.

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

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

Conditions 18.1 through 18.3 - The Permittee is subject to these requirements in the event of a new NSPS affected facility or in the event of a modification or reconstruction of an existing facility⁵ into an affected facility.

Condition 18.4 - The requirements to notify the Administrator of any proposed replacement of components of an existing facility (40 CFR 60.15) apply in the event that the fixed capital cost of the new components exceeds 50 percent of the fixed capital cost that would be required to construct a comparable entirely new facility.

Condition 19 - The start-up, shutdown, and malfunction (SSM) record maintenance requirements in 40 CFR 60.7(b) are applicable to NSPS affected facilities subject to Subpart A that do not have the SSM requirements in the applicable NSPS subpart for the affected facility.

Conditions 20 and 21 - NSPS excess emission reporting requirements and the summary report form in 40 CFR 60.7(c) & (d) are applicable to EU ID F1. The Department has included a copy of the federal EEMSP summary report form as Attachment 1 to the operating permit.

³ EPA has not delegated to the Department the authority to administer the NSPS program as of the issue date of this permit

⁴ *Affected facility* means, with reference to a stationary source, any apparatus to which a standard applies, as defined in 40 CFR 60.2.

⁵ *Existing facility* means, with reference to a stationary source, any apparatus of the type for which a standard is promulgated in this part, and the construction or modification of which was commenced before the date of proposal of that standard; or any apparatus which could be altered in such a way as to be of that type, as defined in 40 CFR 60.2.

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

Condition 23 - The Permittee has already complied with the initial performance test requirements in 40 CFR 60.8. However, the Permittee is still subject to these requirements in the event of a new NSPS affected facility, in the event of a modification or reconstruction of an existing facility into an affected facility, or at such other times as may be required by EPA.

Condition 24 - Good air pollution control practices (GAPCP) in 40 CFR 60.11(d) are applicable to NSPS affected facilities subject to Subpart A that do not have the GAPCP requirements in the applicable NSPS subpart for the affected facility.

Condition 25 - 40 CFR 60.11(g) states that any credible evidence may be used to demonstrate compliance with, or to establish violations of, relevant NSPS standards.

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

Condition 27 - Monitoring requirements in 40 CFR 60.13 are applicable because a continuous monitoring system (CMS) is used to determine compliance with NSPS Subpart J fuel sulfur standards for EU ID F1.

Condition 28 - The control device requirements of 40 CFR 60.18 apply to EU ID F1 due to the emission control requirements of NSPS Subpart Kb. The flare exit velocity measurements required under Condition 28.7 are waived for vapors which originate from the residuum tank. On August 7, 1997, Bonnie Thie of EPA Region X wrote to ARCO Alaska, Inc. (previous owner of COTU) stating, "This letter is in response to your May 20, 1997, resubmittal of a request for waiver of the flow measurement requirement of 40 CFR part 60.18(f)(4). For the reasons explained below, I am granting your request and waiving the requirement of 40 CFR part 60.18(f)(4) to measure the flow of vapors to the flare which originate from the residuum tank. Please note that the overhead accumulator must still comply with the flow measurement requirements of 40 CFR part 60.18(f)(4)."

The condition requires the Permittee to comply with the federal visible emission standard to design and operate EU ID F1 with no visible emissions. The Department added MR&R requirements since the subpart requirements are not sufficient to ensure compliance with the visible emissions standard.

The emergency flare (EU ID F2) is not subject to the requirements of 40 CFR 60.18 because it is a safety device and not a control device. Additionally, it does not control emissions from any NSPS regulated emissions units.

Factual Basis: General provisions of 40 CFR 60, Subpart A apply to owners or operators who are subject to a relevant subpart under Part 60, except when otherwise specified in an applicable subpart or relevant standard. In general, the intent of NSPS Subpart A is to

eliminate the repetition of requirements applicable to all owners or operators affected by NSPS.

Condition 29, 40 CFR 60 Subpart J Requirements

Legal Basis: The Department has incorporated by reference the NSPS requirements for specific industrial activities, as listed in 18 AAC 50.040(a). Per 40 CFR 60.100(a) and (b), NSPS Subpart J applies to affected facilities at petroleum refineries, including any fuel gas combustion device other than a flare which commences construction, reconstruction, or modification after June 11, 1973, and on or before May 14, 2007, or any fuel gas combustion device that is also a flare which commences construction, reconstruction or modification after June 11, 1973, and on or before June 24, 2008. COTU is a petroleum refinery as defined in 40 CFR 60.101, and flare EU ID F1 is a fuel gas combustion device that was modified after June 11, 1973 and before June 24, 2008. Therefore, EU ID F1 is subject to the requirements of NSPS Subpart J. EU ID H1 was constructed prior to June 11, 1973, so Subpart J requirements are not applicable. The Permittee has stated EU IDs H2 and H4 burn natural gas and not refinery fuel gas and has requested a permit shield from Subpart J requirements for these emissions units.

Factual Basis: This condition incorporates the NSPS Subpart J H₂S standard. The Permittee may not cause or allow this standard to be exceeded. In refineries that have two fuel gas sources, the piping is usually flexible so that either gas can be used in all combustion sources. If natural gas is blended into the refinery fuel gas line, then the mixed gas also becomes subject to NSPS Subpart J, no matter how large the proportion of natural gas. The Department included 162 ppmv with the H₂S limit in Conditions 29.1 and 29.3 because 162 ppmv is identified as an exceedance of the 3-hour H₂S concentration limit under 40 CFR 60.105(b)(3)(iii).

Condition 30, 40 CFR 60 Subpart Kb Requirements

Legal Basis: The Department has incorporated by reference the NSPS requirements for specific industrial activities, as listed in 18 AAC 50.040(a). Per 40 CFR 60.110b(a), NSPS Subpart Kb applies to each storage vessel with a capacity greater than or equal to 75 cubic meters (m³) that is used to store volatile organic liquids (VOL) for which construction, reconstruction, or modification is commenced after July 23, 1984. EU ID TK1 has a capacity of 238.5 m³. Per 40 CFR 60.110b(b), Subpart Kb does not apply to storage vessels with a capacity greater than or equal to 151 m³ storing a VOL with a maximum true vapor pressure (TVP) less than 2.5 kilopascals (kPa). EU ID TK1 stores a VOL with a TVP that is greater than 2.5 kPa. Therefore, EU ID TK1 is subject to the requirements of NSPS Subpart Kb.

Factual Basis: EU ID TK1 is subject to the requirements of 40 CFR 60.112b(a) because it has a design capacity greater than 151 m³ and contains a VOL that, as stored, has a maximum TVP greater than 5.2 kPa. The Permittee has equipped EU ID TK1 with a closed vent system and a flare control device (EU ID F1) as required under 40 CFR 60.112b(a). Subpart Kb, 40 CFR 112b(a)(3)(i), specifies that the closed vent system shall be designed to collect all VOC vapors and gases discharged from the storage vessel and operated with no

detectable emissions as indicated by an instrument reading of less than 500 ppm above background and visual inspections, as determined in part 60, Subpart VV, 40 CFR 60.485(b). Subpart VV requires the use of Method 21 (40 CFR 60, Appendix A) to determine no detectable emissions. COTU is not in the synthetic organic chemicals manufacturing industry (SOCMI) source category, so Subpart VV is not otherwise applicable.

Because EU ID TK1 is equipped with a closed vent system and a flare control device meeting the specifications of 40 CFR 60.112b, it is exempt from the monitoring provisions of 40 CFR 60.116b(c) and (d).

Condition 31, 40 CFR 61 Subpart A & M Requirements

Legal Basis: The requirements of 40 CFR 61 are applicable requirements for Title V permitting purposes, as stated in item 4 of the “applicable requirement” definition under 40 CFR 71.2. The condition requires the Permittee to comply with 40 CFR 61 Subpart A and Subpart M (asbestos demolition or renovation requirements), as adopted by reference under 18 AAC 50.040(b)(1) and 50.040(b)(2)(F). The asbestos demolition and renovation requirements apply if the Permittee engages in asbestos demolition or renovation.

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

Condition 32, 40 CFR 61 Subpart FF Requirements

Legal Basis: The requirements of 40 CFR 61 are applicable requirements for Title V permitting purposes, as stated in item 4 of the “applicable requirement” definition under 40 CFR 71.2. NESHAP Subpart FF applies to owners and operators of chemical manufacturing plants, coke by-product recovery plants, and petroleum refineries. COTU is a petroleum refinery, as that term is defined in 40 CFR 61.341, and COTU infrequently generates benzene-containing waste from periodic tank or vessel cleaning operations.

Records required in the subpart are required to be kept for five years in accordance with 40 CFR 71.6(a)(3)(ii)(B) rather than the two years specified in 40 CFR 61.356(a).

Factual Basis: The total annual benzene quantity generated at COTU is documented to be less than 1.0 megagram per year (Mg/yr). Therefore, pursuant to 40 CFR 61.342(a), COTU is exempt from the standards under 40 CFR 61.342.

This condition incorporates certain recordkeeping and reporting requirements from NESHAP Subpart FF. Pursuant to 40 CFR 61.356(b), the Permittee is required to maintain records that identify each waste stream at the facility subject to Subpart FF, and indicate whether the waste stream is controlled for benzene emissions in accordance with Subpart FF.

In the event that there is a change in the process generating the waste stream that could cause the total annual benzene quantity from facility waste to increase to 1 Mg/yr (1.1 ton/yr) or more, the Permittee is required to repeat the determination of total annual benzene quantity from facility waste using test methods and procedures set out in 40 CFR 61.355 and submit a report to the permitting authority and EPA Administrator updating the total annual benzene quantity determination.

Condition 33, 40 CFR 63 Subpart A Requirements

Legal Basis: NESHAP requirements are included in the “applicable requirement” definition in item 4 under 40 CFR 71.2, which has been adopted by the Department under 18 AAC 50.040(j)(1). The Permittee must comply with 40 CFR 63 Subpart A if the stationary source is subject to the requirements of another subpart under 40 CFR 63.

Factual Basis: Subpart A contains general requirements applicable to all facilities and emissions units subject to NESHAP requirements. EU ID E1 is subject to 40 CFR 63 Subpart ZZZZ and therefore is subject to the general provisions of Subpart A as specified in the provisions for the applicability of Subpart A in Table 8 of Subpart ZZZZ.

Condition 34, 40 CFR 63 Subpart ZZZZ Requirements

Legal Basis: The Department has incorporated by reference the NESHAP requirements for specific industrial activities, as listed in 18 AAC 50.040(c). NESHAP Subpart ZZZZ applies to owners and operators of any existing, new, or reconstructed stationary reciprocating internal combustion engines (RICE) located at major and area sources of HAP emissions. Crude Oil Topping Unit is an area source that contains RICE units. EU ID E1 is an affected source and an existing stationary RICE at an area source under 40 CFR 63.6590(a)(1)(iii).

Factual Basis: These conditions incorporate the NESHAP Subpart ZZZZ requirements applicable to EU ID E1. EU ID E1 is a non-emergency, non-black start compression ignition engine rated at less than 300 horsepower. Therefore, the engine is subject to the emissions management practices of Subpart ZZZZ (i.e., inspections and maintenance at intervals specified by the subpart and operation and maintenance in a manner consistent with safety and good air pollution control practices for minimizing emissions) and the numerical emission limits of Subpart ZZZZ do not apply. Also, the general requirement for good air pollution control practices in 40 CFR 63.6605(b) and 63.6625(e) applies to the engine.

The Permittee must comply with the recordkeeping requirements of 40 CFR 63.6655(e) and 40 CFR 63.6660. The Permittee is also required to include reports of deviations from NESHAP Subpart ZZZZ requirements with the facility operating reports, in accordance with 40 CFR 63.6650(f).

Under 40 CFR 63.6645(a)(5), initial notification is not required for existing stationary CI RICE that are not subject to any numerical emission standards. In addition, fuel requirements under 40 CFR 63.6604 do not apply, as specified in 40 CFR 63.6604(a).

Conditions 35 through 37, 40 CFR 82 Subpart F, G, & H Requirements

Legal Basis: The requirements of 40 CFR 82 are applicable requirements for Title V permitting purposes, as stated in item 12 of the “applicable requirement” definition under 40 CFR 71.2. These conditions require compliance with the applicable requirements in 40 CFR 82, as adopted by reference under 18 AAC 50.040(d). The Permittee must comply with the standards for recycling and emission reduction of refrigerants in 40 CFR 82 Subpart F if the Permittee engages in the recycling or disposal of certain refrigerants.

These conditions also contain prohibitions that apply to all stationary sources that use substitutes for ozone-depleting compounds and all stationary sources that use halon for extinguishing fires and inert gas to reduce explosion risk. The COTU uses halon and is therefore subject to the federal regulations contained in 40 CFR 82 Subparts G and H.

Factual Basis: Because the regulations in 40 CFR 82 Subpart F regarding refrigerant recycling and disposal include adequate monitoring and reporting requirements and because the Permittee is not currently engaged in such activity, simply citing the regulatory requirements is sufficient to ensure compliance with this federal regulation. These conditions also incorporate applicable ozone-depleting compounds and halon prohibitions from 40 CFR 82 Subparts G and H.

Conditions 38 through 40, NESHAP Applicability Determination Requirements

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

Factual Basis: The Permittee has conducted an analysis of the stationary source and determined that it is not a major HAPs stationary source based on emissions. These conditions require the Permittee to notify the Department and Administrator if the stationary source becomes an affected source subject to a standard promulgated by EPA under 40 CFR 63, comply with any NESHAP standard that becomes applicable to the source by the compliance date established in the applicable subpart, and to keep records of applicability determinations and make those records available to the Department. Notifications of construction are also required as applicable.

Conditions 41 through 43, Standard Terms and Conditions

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

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

Condition 44, Administration Fees

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

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

Conditions 45 and 46, Emission Fees

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

Factual Basis: The Department used the language in SPC I, adopted by reference under 18 AAC 50.346(b), for the permit. These conditions require the Permittee to pay fees in accordance with the Department's billing regulations. The billing regulations set the due dates for payment of fees based on the billing date.

The assessable emissions are the lesser of the stationary source's potential or projected emissions of each air pollutant (AS 46.14.250(h)(1)). The conditions allow the Permittee to calculate assessable emissions based on previous actual annual emissions. According to AS 46.14.250(h)(1), assessable emissions are based on each air pollutant. Therefore, fees shall be paid on any pollutant emitted whether or not the permit contains any limitation for that pollutant.

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

The Department has modified SPC I for Operating Permit AQ0265TVP04 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. The Department also did not include the condition for stationary sources that have not commenced construction or operation since it is not applicable.

Condition 47, Good Air Pollution Control Practice

Legal Basis: This condition requires compliance with the requirements in 18 AAC 50.346(b)(5) and applies to all emissions units, **except** those subject to an emission

standard in 40 CFR 60, 61, or 63, those subject to continuous emission or parametric monitoring requirements, and insignificant emissions units.

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

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

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

Condition 48, Dilution

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

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

Condition 49, Reasonable Precautions to Prevent Fugitive Dust

Legal Basis: 18 AAC 50.045 is included in the SIP approved by EPA. 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.

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). SPC X applies to stationary sources containing any of the following emissions units or activities listed in Table 7 under 18 AAC 50.346: coal-fired boilers; coal handling facilities; construction of gravel pads or roads that are part of a permitted stationary source or other construction that has the potential to generate fugitive dust that reaches ambient air; commercial/industrial/municipal solid waste, air curtain, and medical waste incinerators; sewage sludge incinerators not using wet methods to handle that ash; mines; urea manufacturing; soil remediation units; or dirt roads under the control of the operator with

frequent vehicle traffic; and other emission units the Department finds are likely to generate fugitive dust. Additionally, the operation of the stationary source is considered an industrial activity.

Condition 50, Stack Injection

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

This condition requires compliance with the applicable requirement in 18 AAC 50.055(g). It prohibits the Permittee from releasing materials other than process emissions, products of combustion, or materials introduced to control pollutant emissions from a stack (i.e. disposing of material by injecting it into a stack). Stack injection requirements apply to stacks of emissions units at a stationary source constructed or modified after November 1, 1982.

Factual Basis: No specific monitoring for this condition is practical. Compliance is ensured by inspections, because the emissions units or their stacks would need to be modified to accommodate stack injection.

Condition 51, Air Pollution Prohibited

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

This condition requires compliance with 18 AAC 50.110. The condition prohibits the Permittee from causing any emission which is injurious to human health or welfare, animal or plant life, or property, or which would unreasonably interfere with the enjoyment of life or property. The Department also included permit conditions for MR&R as required by 40 CFR 71.6(a)(3) and 71.6(c)(1).

Factual Basis: The Department used the language in SPC II for the permit. This condition spells out how to monitor, record, and report prohibited air pollution. While the other permit conditions and emissions limitations should ensure compliance with this condition, unforeseen emission impacts can cause violations of this standard. These violations would go undetected except for complaints from affected persons. Therefore, to monitor compliance, the Permittee must monitor and respond to complaints.

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

Condition 52, Technology-Based Emission Standard

Legal Basis: The Permittee is required to take reasonable steps to minimize emissions if certain activities cause an exceedance of any technology-based emission standard in this permit. This condition requires compliance with the requirement in 18 AAC 50.235.

Technology-Based Emission Standard requirements apply because the stationary source contains equipment subject to a technology-based emission standard, such as BACT, MACT, LAER, NSPS or any other similar standard for which the stringency of the standard is based on determinations of what is technologically feasible, considering relevant factors.

Factual Basis: The conditions of this permit list applicable technology-based emission standards and require excess emission reporting for each standard in accordance with Condition 68. Excess emission reporting under Condition 68 requires information on the steps taken to minimize emissions.

Condition 53, Open Burning

Legal Basis: 18 AAC 50.065 is included in the SIP approved by EPA. The condition prohibits open burning, except as allowed by an open burn permit issued to the Permittee by the Department. The 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 has requested this condition. The Permittee has certified that no open burning is conducted at this stationary source. However, the Permittee may conduct open burning by following the provisions of 18 AAC 50.065 and by following the Department guidelines posted at the website <http://dec.alaska.gov/air/air-permit/open-burn-application/>.

Condition 54, Requested Source Tests

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

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

Conditions 55 through 57, Operating Conditions, Reference Test Methods, Excess Air Requirements

Legal Basis: Conditions 55 and 57 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 56 specifies source test methods, as required by 40 CFR 71.6(a)(3)(i) and 71.6(c)(1). These requirements apply because the Permittee is required by the permit to conduct source tests, or a source test may be requested by the Department. The Permittee is required to conduct source tests in the manner set out in Conditions 55 through 57.

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

Condition 58, 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 59 through 62, Test Deadline Extension, Test Plans, Notifications and Reports

Legal Basis: Conditions 60 through 62 require compliance with the applicable requirements in 18 AAC 50.345(m) through (o), which are included in the SIP approved by EPA. Condition 59 contains the requirement in 18 AAC 50.345(l). The requirements in 18 AAC 50.345(l) through (o) constitute standard conditions that must be included in each operating permit, as specified in 18 AAC 345(a). These requirements apply because the Permittee is required to conduct source tests as set out by this permit or as requested by the Department.

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

Condition 63, 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 50.055.

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 64, Recordkeeping Requirements

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

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

Condition 65, Certification

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

Factual Basis: The Department used the language in SPC XVII, adopted by reference under 18 AAC 50.346(b)(10), for the permit condition. The requirement in 18 AAC 50.345(j) is a standard condition that must be included in each operating permit, as specified in 18 AAC 50.345(a). 18 AAC 50.345(j) allows the excess emission 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 68 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 66, Submittals

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

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

Condition 67, 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 68, Excess Emission and Permit Deviation Reports

Legal Basis: This condition requires the Permittee to comply with the requirements in 18 AAC 50.235(a)(2) and 18 AAC 50.240(c). The condition specifies reporting

requirements as required by 40 CFR 71.6(a)(3)(iii) and 71.6(c)(1). Also, the Permittee is required to notify the Department when emissions or operations deviate from the requirements of the permit.

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

The Department used the language in SPC III for the permit condition. The Department used the notification form in SPC IV for the notification requirements.

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

Condition 69, Operating Reports

Legal Basis: This condition specifies reporting requirements as required by 40 CFR 71.6(a)(3)(iii)(A), which the Department has adopted by reference under 18 AAC 50.040(j)(4).

Factual Basis: The Department used the language in SPC VII, adopted by reference under 18 AAC 50.346(b)(6), for the permit condition. The condition restates the requirements for reports listed in regulation. The condition supplements the specific reporting requirements elsewhere in the permit.

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

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

Condition 70, Annual Compliance Certification

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

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

Condition 70.2 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. The Permittee is also required to submit one copy of the annual compliance certification report to the EPA.

Condition 71, Emission Inventory Reporting

Legal Basis: This condition requires the Permittee to submit emissions data to the state so the state is able to satisfy the federal requirement to submit emission inventory data from point sources to the EPA as required under 40 CFR 51.15 and 51.321. The emission inventory requirement applies to sources defined as point sources in 40 CFR 51.50. The state must report to EPA emissions data as described in 40 CFR 51.15 and the data elements in Tables 2a and 2b to Appendix A of 40 CFR 51 Subpart A.

Factual Basis: The Department used the language in SPC XV, as adopted by reference under 18 AAC 50.346(b)(8), for the permit condition. The Department revised the SPC for Operating Permit AQ0265TVP04 to add clarification that the emission thresholds for reporting apply to the entire combined stationary source rather than the portion of the stationary source addressed in Operating Permit AQ0265TVP04 and to exclude the provisions that apply to stationary sources located in nonattainment areas since COTU is not located in a nonattainment area.

The emission inventory data is due to EPA 12 months after the end of the reporting year (40 CFR 51.30(a)(1) and (b)(1)). Permittees have until April 30th to compile and submit the data to the Department. To expedite the Department's process of transferring data into EPA's electronic reporting system, the Department encourages Permittees to submit the emission inventory through the Department's electronic emission inventory submission system in the Permittee Portal on the Department's Air Online Services webpage. A myAlaska account and profile are needed to gain access to the Permittee Portal. Other options are to submit the emission inventory via mail, email, or fax.

Detailed instructions on completing and submitting the emission inventory and the report form are available on the Point Source Emission Inventory webpage by clicking the

Emission Inventory Instructions button. The emission inventory instructions and report form may also be obtained by contacting the Department.

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

Title V stationary sources with potential annual emissions greater than or equal to any of the emission thresholds for Type B (small) sources, as listed in Table 1 to Appendix A of 40 CFR 51 Subpart A, are required to report emission inventory data every third year (i.e., triennially) for the previous inventory year.

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

Condition 72, Consistency of Reporting Methodologies

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

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

Condition 73, NSPS and NESHAP Reports and Waivers

Legal Basis: The Permittee is required to provide the Department a copy of each report submitted to EPA for units subject to NSPS or NESHAP federal regulations under 18 AAC 50.326(j)(4).

Factual Basis: The condition supplements the specific reporting requirements in 40 CFR 60, 40 CFR 61, and 40 CFR 63. For those notices and reports submitted through EPA's on-line reporting system, CDX-CEDRI, the Permittee is not required to submit a duplicate copy to the Department, as Department staff receive electronic notice and have access to EPA's on-line reporting system for compliance reviews.

Condition 74, Permit Applications and Submittals

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

Factual Basis: The Department used the language in SPC XIV for the permit condition. The condition directs the applicant to send copies of all application materials required to be submitted to the Department directly to the EPA, in electronic format, if practicable. This condition shifts the burden of compliance with 40 CFR 71.10(d)(1) from the Department to the Permittee as allowed under 40 CFR 71.10(d)(1). The Department revised the SPC for Operating Permit AQ0265TVP04 to include EPA's order of preference for receiving air permitting documents in accordance with the February 12, 2024 guidance memo from EPA Region 10.

Conditions 75 through 77, Permit Changes and Revisions Requirements

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

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

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

Condition 78, Permit Renewal

Legal Basis: The Permittee must submit a timely and complete operating permit renewal application if the Permittee intends to continue source operations in accordance with the operating permit program. The obligations for a timely and complete operating permit application are in 40 CFR 71.5(a) through (c), adopted by reference in 18 AAC 50.040(j)(3), and 18 AAC 50.326(c).

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

Therefore, as long as an application has been submitted within the timeframe specified under 40 CFR 71.5(a)(1)(iii) and is complete before the expiration date of the existing permit, then the expiration of the existing permit is extended and the Permittee has the right to operate under that permit until the effective date of the new permit. However, this protection shall cease to apply if, after 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 79 through 84, General Compliance Requirements and Schedule

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

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

Conditions 85 and 86, Permit Shield

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

Factual Basis: Table B of Operating Permit No. AQ0265TVP04 shows the permit shield that the Department granted to the Permittee. The following table shows the requests that were denied and the reasons that they were denied. The Department based the determinations on the permit application, past operating permit, likelihood for the source to become subject during the life of the permit, Title I permits and inspection reports.

Table D - Permit Shields Denied

Shield Requested for:	Reason for Shield Request:	Reason for Denial
EU ID F1: 40 CFR 60 Appendix F to Part 60	The H ₂ S CMS required by Subpart J is used to determine excess emissions, but is not used to demonstrate continuous compliance and is not subject to Appendix F.	The continuous monitoring system is used to demonstrate continuous compliance. The H ₂ S CMS is not subject to Appendix F because it is a continuous monitoring system for fuel while Appendix F contains quality assurance requirements for <u>gas</u> continuous <u>emission</u> monitoring systems.
EU ID F1: 40 CFR 64	This unit does not use a control device to achieve compliance with any emission limitation or standard.	EU ID F1 is a control device for EU ID TK1. If EU ID TK1 was subject to 40 CFR 64, EU ID F1 would have monitoring requirements under 40 CFR 64. EU ID TK1 is not currently subject to the requirements of 40 CFR 64. Therefore, EU ID F1 is not currently subject to any requirements of 40 CFR 64.
Nonroad engines: 18 AAC 50.055(a)(1), 50.055(b)(1), & 50.055(c)	Nonroad (mobile) internal combustion engines are not included in the definition of fuel-burning equipment (see 18 AAC 50.990)	While it is correct that mobile engines are not included in the definition of fuel-burning equipment, there are no nonroad engines in the operating permit. Therefore, a permit shield is not necessary.

Shield Requested for:	Reason for Shield Request:	Reason for Denial
Nonroad engines: 40 CFR 60 Subpart IIII	This rule applies to stationary engines (see 40 CFR 60.4200(a)). These engines do not meet the definition of stationary internal combustion engines as provided in the rule.	There are no nonroad engines in the operating permit. Therefore, a permit shield is not necessary.
Nonroad engines: 40 CFR 63 Subpart ZZZZ	This rule applies to stationary engines (see 40 CFR 63.6585(a)). These engines do not meet the definition of stationary internal combustion engines as provided in the rule.	There are no nonroad engines in the operating permit. Therefore, a permit shield is not necessary.
EU ID E1: 40 CFR 63.6615, 63.6620, Table 3, & Table 4	There are no performance testing requirements that apply to the engine because there are no CO emission limits that apply to engines with a site rating of less than or equal to 300 hp.	CO limits apply to engines with horsepower as low as 100 hp. However, those limits apply at major sources of HAPs, and this facility is not a major source of HAPs. Therefore, the requirements are not applicable, but the reason for the shield request does not adequately explain why the requirements do not apply.
EU ID 1: 40 CFR 63.6625(a) & (b)	These requirements do not apply to the engine because there are no CO emission limits that apply to engines rated less than or equal to 300 hp.	CO limits apply to engines with horsepower as low as 100 hp. However, those limits apply at major sources of HAPs, and this facility is not a major source of HAPs. Therefore, the requirements are not applicable, but the reason for the shield request does not adequately explain why the requirements do not apply.
No. 1 Diesel Fuel Oil and Jet A Fuel Storage Tanks w/ Capacity >10,000 gallons: 40 CFR 60 Subpart K	Commenced construction after effective date of subpart (6/11/73 - 5/19/78).	These tanks are not in the operating permit because emissions are less than the thresholds in 18 AAC 50.326(e). If any NSPS or NESHAP subparts were applicable, the tanks would be included in the operating permit regardless of emission levels. However, no subparts are applicable, and the tanks are not included in the operating permit. Therefore, a permit shield is not necessary.
No. 1 Diesel Fuel Oil and Jet A Fuel Storage Tanks w/ Capacity >10,000 gallons: 40 CFR 60 Subpart Ka	Commenced construction after 7/23/1984 and/or the vapor pressure of the contents is <6.9 kPa. There are no Subpart Ka requirements for vessels that store petroleum liquids with a maximum true vapor pressure <6.9 kPa. [ref. 40 CFR 60.112a(a), §60.112a(b), §60.115a(d)(1)]	These tanks are not in the operating permit because emissions are less than the thresholds in 18 AAC 50.326(e). If any NSPS or NESHAP subparts were applicable, the tanks would be included in the operating permit regardless of emission levels. However, no subparts are applicable, and the tanks are not included in the operating permit. Therefore, a permit shield is not necessary.

Shield Requested for:	Reason for Shield Request:	Reason for Denial
No. 1 Diesel Fuel Oil and Jet A Fuel Storage Tanks w/ Capacity >10,000 gallons: 40 CFR 60 Subpart Kb	Commenced construction before 7/23/1984 and/or vessel has a capacity ≥151 m3 and stores a petroleum liquid with a maximum true vapor pressure <3.5 kPa (0.5 psia). [ref. 40 CFR 60.110b(b)]	These tanks are not in the operating permit because emissions are less than the thresholds in 18 AAC 50.326(e). If any NSPS or NESHAP subparts were applicable, the tanks would be included in the operating permit regardless of emission levels. However, no subparts are applicable, and the tanks are not included in the operating permit. Therefore, a permit shield is not necessary.
No. 1 Diesel Fuel Oil and Jet A Fuel Storage Tanks w/ Capacity >10,000 gallons: 40 CFR 63 Subpart OO	Provisions only apply to tanks affected by 40 CFR 60, 61, or 63 that specifically reference 40 CFR 63 Subpart OO.	These tanks are not in the operating permit because emissions are less than the thresholds in 18 AAC 50.326(e). If any NSPS or NESHAP subparts were applicable, the tanks would be included in the operating permit regardless of emission levels. However, no subparts are applicable, and the tanks are not included in the operating permit. Therefore, a permit shield is not necessary.
No. 1 Diesel Fuel Oil and Jet A Fuel Storage Tanks w/ Capacity >10,000 gallons: 40 CFR 63 Subpart SS	Provisions only apply to tanks affected by 40 CFR 60, 61, or 63 that specifically reference 40 CFR 63 Subpart SS.	These tanks are not in the operating permit because emissions are less than the thresholds in 18 AAC 50.326(e). If any NSPS or NESHAP subparts were applicable, the tanks would be included in the operating permit regardless of emission levels. However, no subparts are applicable, and the tanks are not included in the operating permit. Therefore, a permit shield is not necessary.
No. 1 Diesel Fuel Oil and Jet A Fuel Storage Tanks w/ Capacity >10,000 gallons: 40 CFR 64	These units do not use a control device to achieve compliance with any emission limitation or standard.	These tanks are not in the operating permit. Therefore, a permit shield is not necessary.
40 CFR 61.153 Subpart M	No reporting requirements apply for emissions units subject to §61.145 (demolition and renovation) [ref. §61.153(a)].	In the event 40 CFR 61.150 is applicable, there are reporting requirements in 40 CFR 61.153.
40 CFR 61.05(a), 61.07, 61.09	Owners or operators of demolition and renovation operations are exempt from the requirements of §§61.05(a), 61.07, and 61.09 [ref. 40 CFR 61.145(a)(5)].	These are general requirements that concern more than just 40 CFR 61.145.
40 CFR 61.10	Demolition and renovation operations are exempt from §61.10(a) [ref. 40 CFR 61.153(b)].	These are general requirements that concern more than just 40 CFR 61.153.
40 CFR 61.13 & 61.14	Emission tests or monitoring is not required under the standards for demolition and renovation [§61.145].	These are general requirements that concern more than just 40 CFR 61.145.

Shield Requested for:	Reason for Shield Request:	Reason for Denial
40 CFR 63 Subpart CC 40 CFR 63 Subpart UUU	The Crude Oil Topping Unit is not primarily engaged in petroleum refining, as defined in the Standard Industrial Classification (SIC) code 2911 and the North American Industry Classification (NAIC) code 32411. The COTU is classified under SIC 1311. Subparts CC and UUU do not apply.	The reason for the shield request does not clearly explain why the Crude Oil Topping Unit is not primarily engaged in petroleum refining.
40 CFR 82.1 Subpart A	Stationary source does not produce, transform, destroy, import or export Class 1 or Group I or II substances or products.	40 CFR 82.1 states the purpose and scope of Subpart A. There are no specific requirements for the Permittee in 40 CFR 82.1. Therefore, a shield is not necessary.
40 CFR 82.30 Subpart B	Stationary source does not service motor vehicle air conditioners.	40 CFR 82.30 states the purpose and scope of Subpart B. There are no specific requirements for the Permittee in 40 CFR 82.30. Therefore, a shield is not necessary.
40 CFR 82.60 Subpart C	Stationary source is not a manufacturer or distributor of Class I and II products or substances.	40 CFR 82.60 states the purpose and scope of Subpart C. There are no specific requirements for the Permittee in 40 CFR 82.60. Therefore, a shield is not necessary.
40 CFR 82.80 Subpart D	Subpart applies only to Federal facilities.	40 CFR 82.80 states the purpose and scope of Subpart D. There are no specific requirements for the Permittee in 40 CFR 82.80. Therefore, a shield is not necessary.
40 CFR 82.100 Subpart E	Stationary source is not a manufacturer or distributor of Class I or Class II products or substances.	40 CFR 82.100 states the purpose and scope of Subpart E. There are no specific requirements for the Permittee in 40 CFR 82.100. Therefore, a shield is not necessary.
40 CFR 82.158 Subpart F	Stationary source does not manufacture or import recovery and recycling equipment.	This sections states, "Starting January 1, 2017, this section applies to recovery and/or recycling equipment for use during the maintenance, service, repair, or disposal of appliances containing any class I or class II refrigerant or any non-exempt substitute refrigerant." Therefore, it is not limited to only manufacturers and importers.
18 AAC 50.055(d)	Emissions units were constructed and/or last modified before November 1, 1982.	The operating permit application provides an installation/construction date of "Unknown (Pre-2005)" for EU ID E1. Therefore, it is not possible to verify that EU ID E1 was constructed before November 1, 1982.