Alaska Department of Environmental Conservation
Air Permits Program

October 15, 2012
Tesoro Alaska Company LLC
Kenai Refinery

STATEMENT OF BASIS
of the terms and Conditions for
Permit No. AQ0035TVP02

Revised by Grace Germain
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Revision 8
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INTRODUCTION

This document sets forth the statement of basis for the terms and conditions of Operating Permit No. AQ0035TVP02.

STATIONARY SOURCE IDENTIFICATION

The Kenai Refinery is aggregated with the Kenai Pipeline Facility and Nikiski Terminal for the purpose of determining stationary source classification because under the definition of "stationary source" in AS 46.14.990, these three Tesoro facilities constitute a single stationary source. In the aggregation review the Department made a clear determination that these three Tesoro facilities have a clear support/dependency relationship and are not independent economic entities. These three facilities are also clearly aggregated under Title I, Title III and Title V of the CAA. EPA has indicated that "*a facility can have more than one operating permit as long as the collection of permits assures that all applicable requirements that would otherwise be required under a single permit for each major source*" would be met (EPA Letter, 6/16/96). The three aggregated facilities are each issued a separate Title V Permit, solely for convenience to the Permittee for better management, and personnel assignments. The Kenai Refinery (AQ0035TVP02), Kenai Pipeline Facility (AQ0033TVPO2), and Nikiski Terminal (AQ0036TVP02) are classified as Prevention of Significant Deterioration (PSD) major for having a total potential to emit over 100 TPY of a regulated air pollutant for a petroleum refineries or petroleum storage and transfer units with a total storage capacity exceeding 300,000 barrels. The Kenai Refinery has been in place since 1969 and has gone through PSD review for modifications.

Section 1 of Operating Permit No. AQ0035TVP02 contains information on the stationary source as provided in the Title V permit application.

The stationary source is owned and operated by Tesoro Alaska Company **LLC** and Tesoro Alaska Company LLC is the Permittee for the stationary source's operating permit. The SIC code for this stationary source is 2911 - Petroleum Refining.

The Kenai Refinery produces 72,000 barrels per day and is located in an industrial area approximately 10 miles north of the city of Kenai. The stationary source consists of a number of petroleum refinery process units and associated process heaters and storage tanks, a sulfur recovery unit, a cogeneration facility, and an underground pipeline system that extends from the Refinery to the KPL facility and the Anchorage and Nikiski Terminals.

Crude oil is composed of hundreds of individual chemicals ranging from short chain alkanes to complex polynuclear aromatics. Much of the refining process involves separating the crude oil into these components by distillation. Various crude oil fractions are then converted into higher value products by refining operations such as hydrocracking, reforming, and isomerization, after which they are blended into final products and stored for transport to market.

Crude oil and other feedstocks are transported to the Refinery by ocean tanker, barge, or pipeline. The crude is then pumped into bulk storage tanks located on the eastern portion of the tank farm facility. From the bulk storage tanks, crude is pumped into the crude unit where it is first heated and then desalted using water. Oily wastewater from the desalters is discharged to the oily water sewer system. The desalted crude is further heated and flashed into the crude distillation unit where it is separated into fuel gas, propane, butane, light and heavy gasoline runs, Jet-A fuel, diesel fuels, gas oil, and #6 fuel oil. Various products including #6 fuel oil, diesel fuels, Jet-A fuel, propane, and gasoline are stored in tanks prior to shipment from the Refinery.

The Refinery operates a number of process units used to produce high value petroleum products. The Refinery burns refinery gas (RG), primarily methane, propane and butane, and purchased natural (NG) gas in boilers and heaters. The boilers and heaters provide heat and steam to the Refinery and its process units. The Refinery also operates two cogeneration units that produce steam and electricity for use in the plant. Diesel-fired and NG-fired IC engines are used at various locations as sources of emergency power or to operate pumps at remote locations. The Refinery operates a number of tanks for storing crude, intermediates, and refined products. It also has an asphalt production and loading system that includes an asphalt heater. The Refinery also operates a water treatment facility that includes a gravity settling tank, an API and CPI separator, dissolved air flotation treatment system, rotating biological contactors, and treatment ponds; cooling towers; an analytical laboratory; maintenance facilities; and groundwater treatment air strippers and associated regenerative thermal oxidizers. In addition, the Refinery also operates a refinery flare and a sulfur recovery unit with a flare.

Since the initial Title V Permit to Operate No. AQ0035TVP01was issued in 2003, changes made at the refinery include three soil vapor extraction systems that vent to thermal oxidizers installed to remediate various on-site groundwater plumes; the vacuum unit was upgraded, the GT-1400 and GT-1410 cogeneration turbines were permitted to burn diesel fuel full-time, with an owner-requested limit placed on the sulfur levels in the diesel fuel. As part of the Distillate Desulfurization Unit project, the capacity of the Sulfur Recovery Unit was increased, the main flare was relocated and upgraded and the amine system was upgraded.

EMISSION 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 emission units at the Kenai Refinery that are classified and have specific monitoring, recordkeeping, and reporting requirements are listed in Table A of Operating Permit No. AQ0035TVP02.

Table A of Operating Permit No. AQ0035TVP02 contains information on the emission units regulated by this permit as provided in the application. Changes in the emissions unit inventory are as indicated in the table footnotes. The table is provided for informational and identification purposes only. Specifically, the emission 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 from the Kenai Refinery is shown in the table below.

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

Pollutant	NO_X	CO	PM-10	SO_2	VOC	HAPs	CO2e	Total
PTE	780	491	51	129	1136	31	1,306,285	
Assessable PTE	780	491	51	129	1136	0	0	2,587

The assessable PTE listed under Condition 117.1 is the sum of the emissions of each individual regulated air pollutant, other than greenhouse gases (GHGs), for which the stationary source has the potential to emit quantities greater than 10 TPY. The emissions listed in Table H are estimates that are for informational use only. The listing of the emissions does not create an enforceable limit to the stationary source.

For criteria pollutants, emissions were estimated in the permit renewal application and application supplement for both significant and insignificant emission units. Emissions from the combustion units were estimated based on AP-42 emission factors, source test results, vendor supplied emission factors, operational limits applicable to emission units at the stationary source, and mass balance equations.

The estimated PTE for CO_2e for the Kenai Refinery, Kenai Pipe Line, and Nikiski Terminal was submitted to the Department on March 31, 2011. The calculations were based on the methodology described in the Mandatory Greenhouse Gas Reporting Rule under 40 C.F.R. 98 for calculating actual CO_2, CH_4, and N_2O emissions. For combustion sources, the maximum rated capacity of the unit was used to predict the PTE. The units were assumed to operate 365 days per year, unless an hourly operating limit was specified in the individual stationary source permit. For equipment without a maximum rated capacity or hourly operating limit (such as the flare and storage tanks), the calculations were based on a reasonable assessment of worst-case emissions. For example, emissions from the main refinery flare were based on flow rates in 2009 that were scaled up based on the ratio of the actual average daily crude throughput for the year over the Refinery's crude capacity of 72,000 barrels per day.

[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(23), effective 12/3/05.

The hazardous air pollutant (HAP) emissions are estimated based on Tesoro Kenai Refinery's 2006 HAPs report for the Toxic Release Inventory Form R annual submittal to EPA, submitted as an application supplement to the Department on March 20, 2008 as the summary calculation of HAPS PTE. The source is classified as HAPs major because it has the potential to emit, in the aggregate, 10 TPY or more of any HAP, and/or 25 TPY or more of any combination of such HAPs. HAPs are counted separately from VOCs since even though most HAPS are VOCs, the HAPS classification is based on a distinct subset of VOCs that constitute HAPS.

The values listed herein differ from the public notice statement of basis because Tesoro proposed small changes to the potential and assessable emission totals due to a turbine replacement project planned for 2012 in an application dated June 13, 2012. The actual installation and change dates have not been determined.

BASIS FOR REQUIRING AN OPERATING PERMIT

In accordance with AS 46.14.130(b), an owner or operator of a Title V source[2] must obtain a Title V permit consistent with 40 C.F.R. Part 71, as adopted by reference in 18 AAC 50.040.

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

- A major source;
- A stationary source including an area source subject to federal new source performance standards under Section 111 of the Clean Air Act or national emission standards under Section 112 of the Clean Air Act;
- Another stationary source designated by the federal administrator by regulation.

This stationary source requires an operating permit because it is classified under 18 AAC 50.326(a) and 40 C.F.R. 71.3(a) as

- Belonging to a single major industrial grouping as defined in Section 112 of the Act, and emits or has the potential to emit, in the aggregate, 10 TPY or more of any hazardous air pollutant (HAP), 25 TPY or more of any combination of such HAPs, or such lesser quantity as the Administrator may establish by rule;
- A major stationary source as defined in Section 302 of the Clean Air Act that directly emits, or has the potential to emit, 100 TPY or more of any air pollutant;
- A source, including an area source, subject to a standard, limitation or other requirement under Section 111 of the Act (Standards of Performance for New Stationary Source, NSPS) not exempted or deferred under AS 46.14.120(e) or (f);
- A source, including an area, subject to a standard or other requirement under Section 112 of the Act (National Emission Standards for Hazardous Air Pollutants, NESHAP) not exempted or deferred under AS 46.14.120(e) or (f).

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

AIR QUALITY PERMITS

Previous Air Quality Permit to Operate

The most recent permit to operate issued for this stationary source is Permit to Operate No. 9323-AA008. This Permit to Operate includes all construction authorizations issued through November 18, 1996, since it was issued before January 18, 1997 (the effective date of the divided Title I/Title V permitting program). Subsequent revisions in the permit terms and conditions had been incorporated into Construction Permits amended through December 31, 2002. All currently applicable stationary source-specific requirements established in these permits are included in the renewal operating permit as described in

Table I.

Title I (Construction and Minor) Permits

Construction Permit No. 9723-AC004 was issued to this stationary source on June 11, 1997, due to modifications in the stationary source the permit was classified as a PSD-avoidance with throughput increase. The construction permit was later rescinded by Construction Permit No. 9923-AC010 on March 21, 2000, for a PSD project to increase fuel use flexibility and sulfur limits. Construction Permit No. 9923-AC010 was revised on December 31, 2002. That revision addressed construction authorization for the installation of Soil Vapor Extraction Systems equipped with thermal oxidation units (EU IDs 44 – 46), the proposed operational limits on firewater pumps P 708A and P 708 B (EU IDs 38 and 39) to protect ambient air quality standard for PM-10, and the revisions for the permit terms and conditions of Air Quality Control Permit to Operate No. 9923-AA010. Minor Permit No. AQ0035MSS04 allows for a change in control device at Soil Vapor Extraction Systems (EU IDs 44 – 45) from thermal oxidation units to activated carbon adsorption systems. The currently applicable stationary source-specific requirements established in the revised Construction Permit No. 9923-AC010 are included in this renewal operating permit as described in Table J. The currently applicable stationary souce-specific requirements established in Minor Permit No. AQ0035MSS04 are included in this revised operating permit as described in Table Q.

The Department issued Construction Permit No. 035CP04 to this stationary source on September 7, 2004 to authorize increased emissions due to new sludge drying, tank bottom fluidization, and VOC control procedures associated with routine tank maintenance at the Kenai Refinery. These procedures involve installation of tank maintenance emissions units (EU IDs 111 – 114). In addition to new storage tank maintenance procedures, Tesoro requested an increase in permitted operations for three industrial diesel engines, EU IDs 36, 37, and 41. Previous analyses of Tesoro Kenai Refinery’s impacts did not include emitting activities associated with tank maintenance. Therefore, air dispersion modeling completed in support of this construction permit application also included emitting activities associated with routine tank maintenance including tank cleaning, drying, and coating.

The Department incorporated these Title I permit stationary source-specific requirements in the initial Title V Operating Permit No. AQ0035TVP01 Revision 2. However, the Permittee stated in its renewal application that the tank maintenance emissions units, EU IDs 111 – 114 were never installed nor are there any plans to install them in the future. Consequently, EU IDs 111 – 114 and their associated MR&R requirements have been removed from this renewal permit. All other stationary source-specific requirements from Construction Permit No. 035CP04 are included in this renewal permit as described in Table K.

Minor Permit No. AQ0035MSS01 was issued on April 23, 2007 to allow use of diesel fuel in the cogeneration turbines, EU IDs 32 and 33, year-round, including owner-requested limits on the allowable sulfur concentrations in the diesel fuel. These permit conditions were then incorporated into Title V Operating Permit No. AQ0035TVP01 as Revision 3. The stationary source-specific requirements established in Minor Permit No. AQ0035MSS01 are included in this renewal operating permit as described in Table L.

Minor Permit No. AQ0035MSS02 was issued on April 4, 2008. This permit action rescinded and removed the requirements to measure and report the concentration of purgeable aromatic hydrocarbons in the liquid influent and effluent of the air strippers. These were requirements for ground water remediation from Exhibit C of Permit No. 9923-AC010, Revision 1 that were carried over to the initial Title V Operating Permit No. AQ035TVP01 as Conditions 11.5 and 11.7c. The Department agreed that such requirements are no longer required as a removal efficiency. These requirements no longer exist in this renewal operating permit. See Table M.

Minor Permit No. AQ0035MSS03 was issued on November 16, 2015. This permit action revised the oxygen (O_2) operating limits for EU IDs 8 and 9 established in Exhibit B of Permit to Operate No. 9323-AA008 (amended), from 6% O_2 to 4.5% O_2 as measured wet in exhaust gas by CEMS, in accordance with requirements from the Compliance Order by Consent (COBC) dated June 10, 2015. The operational limit was reestablished and revised in Minor Permit No. AQ0035MSS03 prior to incorporation in the operating permit as a significant modification under Title V Permit No. AQ0035TVP02 Revision 5, using the integrated review provisions of 18 AAC 50.326(c)(1).

Minor Permit No. AQ0035MSS04 was issued on April 29, 2016. This permit action revised the operating permit to remove thermal oxidation units from the upper and lower tank farm soil vapor extraction (SVE) units, to reflect current remediation activity. Tesoro identified carbon adsorption technology as an improved pollution control method for hazardous air pollutants (HAPs) and volatile organic compounds (VOCs) and intends to operate the system for the SVE units, if necessary, to meet the 16.2 tpy ORL for emissions of VOC. The Department incorporated this minor permit into Title V Operating Permit No. AQ0035TVP02 Revision 6 via significant modification and conducted an integrated review of the minor permit and operating permit significant modification using the provisions of 18 AAC 50.326(c)(1).

Minor Permit No. AQ0035MSS05 was issued on November 18, 2016. This permit action rescinds and replaces the surrogate O_2 operating limits for EU IDs 8 and 9 under Minor Permit No. AQ0035MSS03. Tesoro voluntarily installed in May 2016 low-NOx burners on EU IDs 8 and 9 (H-401 and H-402). To demonstrate that EU IDs 8 and 9 can operate in a greater range of excess O_2 and continue to meet the NOx compliance limit of 0.08 lb/MMBtu in Condition 15, Tesoro conducted source testing on June 28 through 30, 2016. Results of the source testing show that compliance with the NOx limit can be achieved at higher excess O_2 at 7.7 % and 9 % for EU IDs 8 and 9, respectively. The Department incorporated this minor permit into Title V Operating Permit No. AQ0035TVP02 Revision 7 via significant modification and conducted an integrated review of the minor permit and operating permit using the provisions of 18 AAC 50.326(c)(1).

Minor Permit No. AQ0035MSS06 was issued on DATE. This permit action revises the surrogate O_2 operating limit for EU ID 11 (H-404) under Construction Permit No. 9923-AC010 Revision 1. In compliance with the requirements of COBC No. 2013-1220-50-0002 dated June 10, 2015, Condition III.B.16.b, Tesoro installed in May 2016 low-NOx burners on EU ID 11 and performed subsequent burner tip port size reduction in September 2016 for safer and more stable burner operations. Tesoro conducted source testing on October 11 and 12, 2016 to demonstrate that EU ID 11 can operate in a greater range of excess O_2 and continue to meet the NOx compliance limit of 0.08 lb/MMBtu in Condition 15. Results of the source testing on EU ID 11 show that compliance with the NOx limit can be achieved at higher excess O_2 at 8.8% measured wet in exhaust gas by CEMS. The Department incorporated this minor permit into Title V Operating Permit No. AQ0035TVP02 Revision 8 via significant modification and conducted an integrated review of the minor permit and operating permit using the provisions of 18 AAC 50.326(c)(1).

Title V Operating Permit Application, Revisions and Renewal History

The owner or operator submitted an application for the refinery facility in August 1997. The application was amended on November 14, 2002. Additional information was received after December 19, 2002. The Department issued Operating Permit No. AQ0035TVP01 on July 28, 2003.

Revision No. 1: The Permittee requested a minor operating permit modification on May 18, 2004 to correct some information on the Source Inventory Table 1 which resulted in some changes to permit requirements. The fuel used in EU IDs 30 and 31 (duct burners) has been corrected to natural gas only from the previous designation as dual fuel-fired (NG/Diesel) units. The liquid fuel fired capability has been disabled on these units. This revision also changed the description of EU ID 82 from asphalt storage tank to asphalt processing tank. The Department issued Revision 1 on September 17, 2004.

Revision No. 2: The Permittee requested revisions to the permit on September 9. 2004, October 25, 2004, and November 22, 2004. The September 9, 2004 revision request consisted of an administrative amendment to incorporate the conditions of Construction Permit No. 035CP04 into the operating permit. On October 25, 2004, the Permittee requested minor modifications on Conditions 13.1b, 13.1c, 14.1f, and 14.1h of Title V Operating Permit No. 035TVP01 Revision 1. This request was regarding a revised sampling plan as a substitute to 40 C.F.R. 60 Method 18 required for BTX analysis. The sampling plan submitted on November 23, 2004 clarifies the sampling procedure and laboratory analysis protocol which simplifies monitoring procedures for Tesoro and still produce good quality data for compliance purposes. On November 22, 2004, the Permittee requested an administrative revision to update the names of new contact persons for Responsible Official and Facility and Building Contact in Section 1 (Identification). The Department issued Revision 2 on July 29, 2005.

Revision No. 3: The Permittee requested an administrative amendment to Title V Operating Permit No. AQ0035TVP01 Revision 2 to incorporate the provisions of Minor Permit No. AQ0035MSS01 issued April 21, 2007. The Department issued Revision 3 on June 7, 2007.

Renewal: The owner or operator submitted a permit renewal application on December 28, 2007. The Department received renewal application amendments and supplements on May 22, 2008, June 26 & 30, 2008, March 20, 2008, November 17, 2009, and January 22, 2010. These amendments and supplements include information on off-permit changes requested by the Permittee and incorporated into this renewal permit. The Department issued a completeness determination on the renewal application on December 14, 2009.

Table N below shows comparison of stationary source-specific conditions between the initial Title V Operating Permit No. AQ0035TVP01 as revised through Revision 3 and the renewal Title V Operating Permit No. AQ035TVP02.

Revision No. 1. Tesoro submitted an informal appeal on October 29, 2012 regarding implementation dates allowed for Condition 34.2.c which called for monitoring data that would require Tesoro to purchase and install new equipment. Tesoro further claimed that the equipment would require 18 months to engineer, purchase and install, and that the permit does not allow for this timeframe. Tesoro asserted that the Department gave Tesoro a second opportunity to comment on the permit on July 24, 2012, and that Tesoro informed the Department of the required timeframe during this second round of comments. The final Revision 1 permit did not provide for the installation timeframe and the final response to comment did not address this second round comment. The Director's November 15, 2012 decision held that term in abeyance and directed staff to reopen and amend the term with a compliance schedule. The Department submitted a revised operating permit to EPA in December 2012 which modified the condition to allow for the installation schedule proposed by Tesoro.

Revision No. 2. Tesoro submitted applications on March 7, 2013, May 2, 2013 and May 3, 2013 for minor revisions for the addition of an emergency generator, a change in the method of operation of the reboiler, and the API canals project. Conditions were added for NSPS Subparts JJJJ, Ja, and QQQ. None of these revisions triggered Title I permitting. Other administrative type changes made include a stationary source name change to Tesoro Alaska Company, LLC as well as a change to the Responsible Official in Section 1 to Cameron Hunt.

Revision No. 3. Tesoro requested an administrative amendment on December 10, 2014 to correct Condition 36.9.b(i) of the existing Title V permit. The condition was revised to accurately reflect the flare management plan submittal deadline in 40 C.F.R. 60.103a(b)(1).

Revision No. 4. Tesoro requested an administrative amendment on April 17, 2015 to correct Conditions 36.8e, 36.10b(v), 36.11, and 36.12.b(ii) of the existing Title V permit. The conditions were revised to accurately reflect the compliance deadline in 40 C.F.R. 60, Subpart Ja for the modified flare at the Kenai Refinery. In a separate application on April 17, 2015, Tesoro requested a minor revision to authorize the installation of a modular flare gas recovery (FGR) system which will include new and modified units. The increase in emissions from the FGR project are below the minor permit modification thresholds and therefore do not trigger minor permitting. The emission increases are also below PSD significant emission rate thresholds and therefore do not trigger PSD review. The Department is processing both the administrative amendment and minor modification together as Revision 4.

Table O below shows a comparison of stationary source-specific conditions between Operating Permit No. AQ0035TVP02 as revised through Revision 3 and Operating Permit No. AQ0035TVP02 Revision 4.

Revision No. 5. Tesoro requested a minor permit modification on August 4, 2015 to revise the O_2 operating limits for EU IDs 8 and 9 (H-401 and H-402) in accordance with Compliance Order by Consent (COBC) dated June 10, 2015. Because these limits were established in a Title I permit, the Departmet revised the limits through Minor Permit No. AQ0035MSS03, issued November 16, 2015. The O_2 operating limit was lowered from 6% O_2 to 4.5% O_2, as measured on a wet basis, in order to meet the NOx BACT limits of Condition 15. In addition, the Department inadvertently neglected to include emission increases in the previous permit revision. Therefore, the emission increases resulting from the Flare Gas Recovery Project of Revision 4 were added to Table H in Revision 5. The Department issued Revison 5 as a significant modification.

Table P is provided in the Statement of Basis to show how Title V Permit No. AQ0035TVP02 Revision 4 has been revised in Revision 5.

Revision No. 6. Tesoro requested a permit revision to remove the thermal oxidation units from the upper and lower tank farm soil vapor extraction units, to reflect current remediation activity. Tesoro identified carbon adsorption technology as an improved pollution control method for HAPs and VOCs. See the Technical Analysis Report for Minor Permit No. AQ0035MSS04 for additional basis. Table Q is provided in the Statement of Basis to show how Title V Permit No. AQ0035TVP02 Revision 5 has been revised in Revision 6.

Revision No. 7. Tesoro requested a significant modification to Title V Permit No. AQ0035TVP02 Revision 6 on August 29, 2016 concurrently with a minor permit request to revise the O_2 operating limits for EU IDs 8 and 9 (H-401 and H-402), after voluntarily installing in May 2016 low-NOx burners on EU IDs 8 and 9 (H-401 and H-402), with the intent of increasing operational flexibility. Tesoro conducted source testing on June 28 through 30, 2016 to demonstrate that EU IDs 8 and 9 can operate in a greater range of excess O_2 and continue to meet the NOx compliance limit of 0.08 lb/MMbtu in Condition 15. Through Minor Permit No. AQ0035MSS05, issued November 16, 2016, the O_2 operating limits were increased to 7.7% O_2 and 9% O_2 for EU IDs 8 and 9, respectively, as measured on a wet basis by CEMS. Therefore, the revised O_2 operating limit of 4.5 % in Minor Permit No. AQ0035MSS03 has been rescinded and replaced by Minor Permit No. AQ0035MSS05. Table D has been updated to reflect these changes. In addition, Conditions 20.2.a(i) and 20.3.a have been revised to specify that the averaging period is based on three-hour rolling averages to ensure consistency with the surrogate O_2 operating limits described in the COBC.

Revision 7 also includes the new updates to Standard Permit Conditions (SPCs), revised May 18, 2016, in this operating permit as minor revision. Conditions 118, 138, 145, 148 and Section 13 have been revised to match the new revised language. In addition, Conditions 142 and 146 have been updated to align with the changes on the number of reports and other submittals to one copy. The Statement of Basis was updated accordingly.

Table R is provided in the Statement of Basis to show how Title V Permit No. AQ0035TVP02 Revision 6 has been revised in Revision 7.

Revision No. 8. Tesoro requested a significant modification to Title V Permit No. AQ0035TVP02 Revision 7 on November 11, 2016 concurrently with a minor permit request to revise the O_2 operating limit for EU ID 11 (H-404). In compliance with the requirements of COBC No. 2013-1220-50-0002 dated June 10, 2015, Condition III.B.16.b, Tesoro installed in May 2016 low-NOx burners on EU ID 11 and performed subsequent burner tip port size reduction in September 2016 for safer and more stable burner operations. Tesoro conducted source testing on October 11 and 12, 2016 to demonstrate that EU ID 11 can operate in a greater range of excess O_2 and continue to meet the NOx compliance limit of 0.08 lb/MMbtu in Condition 15. Through Minor Permit No. AQ0035MSS06, issued DATE, the O_2 operating limit for EU ID 11 was increased to 8.8% O_2, as measured on a wet basis by CEMS. Therefore, the revised O_2 operating limit of 6 % in Construction Permit No. 9923-AC010 Revision 1 Exhibit B.A has been rescinded and replaced by Minor Permit No. AQ0035MSS06. Table D has been updated to reflect these changes.

In addition, on June 20, 2016, Tesoro submitted an application for a minor permit revision to Operating Permit No. AQ0035TVP02 Revision 7, requesting incorporation of the applicable NESHAP Subpart DDDDD requirements into the permit. Therefore, the Department added the applicable Subpart DDDDD requirements as Conditions 107 - 110 to this permit revision. The Statement of Basis was updated accordingly. Table S is provided in the Statement of Basis to show how Title V Permit No. AQ0035TVP02 Revision 7 has been revised in Revision 8.

COMPLIANCE HISTORY

The stationary source has operated at its current location since 1969. Tesoro Kenai Refinery is classified as Prevention of Significant Deterioration (PSD) major because it emits or has the potential to emit 100 TPY or more of a regulated air pollutant, and is classified as a petroleum refinery with storage capacity greater than 300,000 barrels.

It is also classified as a HAPs major stationary source because it has the potential to emit, in the aggregate, 10 TPY or more of any HAP, and/or 25 TPY or more of any combination of such HAPs. Review of the permit files for this stationary source, which includes the past inspection reports and compliance evaluations, indicate that the Permittee had several violations on procedural aspects of reporting and recordkeeping, as well as violations on excess emissions/permit deviations, most of which the Permittee has already addressed and taken corrective actions, except for the non-compliance related to the leaking valves regulated under Permit No. AQ0035 TVP01 Condition 40 (40 C.F.R. 60, Subpart GGG/VV, sulfur recovery unit upsets) and procedural violations on reports required under Conditions 82, 84, and 85 (Excess Emission/Permit Deviations, Operating Reports, and Annual Compliance Certification).

In October 2006, the Department conducted a review of the Refinery's calendar year (CY) 2005 and 2006 compliance reporting documents and excess emission and permit deviation reports. As a result of this review, the Department issued a Notice of Violation (2007-0049-40-6116) on December 6, 2007 citing violations of fuel sulfur monitoring, not reporting emission rates, properly calibrating the subpart J CEMS, failing to perform a required RATA in a timely manner, failing to inject water to EU ID 33 and failure to perform weekly visual inspections and inspection of internal floating roof systems.

Additional violations were documented in the Full Compliance Evaluation (FCE) report covering the period January 1, 2006 through December 31, 2007 and follow-up compliance actions through June 2008. To address the findings from the FCE, the Department issued the Permittee a compliance letter dated July 7, 2008, Enforcement Tracking No. 2008-0487-10-6978, requiring corrective actions by submitting correspondences that address a timeline with milestones for repairing the leaking valves, a certified project completion letter affirming total compliance with all the requirements for eliminating open ended lines within the Refinery, and an Action Plan to assure that all future reporting procedures required in the permit are accurately followed.

On October 7, 2010, the Department found the stationary source out of compliance with State standards for visable emissions and sulfur compound standards. The Stationary source was also found out of compliance with conditions related to 40 C.F.R. 60 Subparts J, GG, UU, GGG and QQQ, and 40 C.F.R. 63 Subparts CC, UUU, and ZZZZ during the review period. In addition, non-compliance was identified with Minor Permit No. AQ0035MSS01 Condition 7 (incorporated into AQ0035TVP01, Section 5 without a specific permit condition).

APPLICABLE REQUIREMENTS FROM PRE-CONSTRUCTION PERMITS

Incorporated by reference at 18 AAC 50.326(j), 40 C.F.R. Part 71.6 defines “applicable requirement” to include the terms and conditions of any pre-construction permit issued under rules approved in Alaska’s State Implementation Plan (SIP).

Alaska’s SIP included the following types of pre-construction permits:

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

Pre-construction 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 emission unit- or source-specific requirement established in these permits issued under 18 AAC 50 that are still in effect at the time of this operating permit issuance.

Table I through Table S below lists the requirements carried over from Permit to Operate No. 9323-AA008, Construction Permit Nos. 9923-AC010 Revision 1, 034CP04, and Minor Permit Nos. AQ0035MSS01, AQ0035MSS02, AQ0035MSS04, AQ0035MSS05, and AQ0035MSS06 into Operating Permit No. AQ0035TVP02 to ensure compliance with the applicable requirements.

Table I – Comparison of Previous Permit-to-Operate No. 9323-AA008 Conditions to Operating Permit No. AQ0035TVP02 Conditions[3]

Permit No. 9323-AA008 Condition No.	Description of Requirement	Permit No. AQ0035TVP02 Condition No.	How Condition was Revised
Exhibit A	Emission Unit Inventory	Table A	Updated the list based on new information. Exhibit A was rescinded and replaced with Exhibit A in Permit No. 9923-AC010 Rev. 1, 12/31/02. New updates were provided in the operating permit renewal application. These changes are as noted in Table A footnotes.
2 and Exhibit B	Applicable State emission standards, limits and specifications and Exhibit B.	1, 6, & 10	Updated State emissions standards and MR&R requirements to be concurrent with applicable State regulations and Department policies.
6	Discontinue water injection in GT 1400 and GT 1410 if the Department determines that ice fog conditions exist. Notify the Department's staff at the Kenai Peninsula district Office if ice fog conditions are observed.	11	Brought forward intro the state standard section and also incorporated in NSPS GG NO_X conditions as an exemption for excess emissions when water injection is discontinued because of ice fog. Revised "discontinue water injection if the Department determines that ice fog conditions exist which warrant the discontinuation" to "discontinue water injection and notify the Department when the Permittee deems ice fog a traffic hazard.
4	Except as provided in Conditions 5 and 6, operate GT 1400 and GT 1410 (EU IDs 32 and 33) with NG or LPG. Operate with water injection at not less than 0.8 pounds of water per pound of fuel when the turbine operates at loads greater than 2.5 megawatts.	38.1	Same requirements, different format. Specified "whether NG, LPG or diesel". Incorporated in NSPS Subpart GG NO_X conditions.

[3] This table does not include all standard and general conditions.

Permit No. 9323-AA008 Condition No.	Description of Requirement	Permit No. AQ0035TVP02 Condition No.	How Condition was Revised
5 and Exhibits B.A, C & D, item 3.c	May burn diesel fuel in sources GT 1400 and GT 1410 for not more than 438 hours per year in each turbine. Operate with water injection at not less than 0.8 pounds of water per pound of fuel when the turbine operates at loads greater than 2.5 megawatts. NO_X MR&R.	38.1, 20, & Table D	Removed 438 hours/year operational limits for EU IDs 32 and 33. Limit was rescinded in Permit No. AQ0035MSS01. Incorporated in NSPS Subpart GG NO_X conditions.
7	Operate the sulfur recovery unit at not less than 99.9 percent sulfur removal efficiency, on a weight basis.	N/A	Condition was rescinded on 4/27/95 amendment.
8, 9, and Exhibit C	Operate the groundwater remediation system air strippers (EU IDs 47 and 48) …at no less than 99.5% removal efficiency of BTX. Limit the airflow through the air stripper… Determine and report the flow rate, and the concentration of purgeable aromatic hydrocarbons from each air stripping unit once per month	16, 16.1.c, & 16.1.d	Rescinded the 99.5% removal efficiency of BTX requirement and replaced with a numerical limit, per Permit No. 9923-AC010, 3/21/2000. Removed references to EU ID 47; the unit is no longer in service and has been dismantled in 2009 and removed from the SI building per Tesoro's 7/8/2010 response letter to ADEC. Replaced the requirement to limit airflow through the air stripper with equivalent requirements based on MR&R conditions provided for the approved modification of air strippers permitted in Permit No. 9923-AC010, 3/21/2000. Rescinded the requirements to determine and report the flow rate, and the concentration of purgeable aromatic hydrocarbons from the air stripping unit (EU ID 48) once per month, per Permit No. AQ0035MSS02, 4/4/08.
10 and Exhibit B.A	Do not operate sources EG 704, EG 801, P 708C and P 719C (EU IDs 34, 35, 40, and 41) for more than 200 hours per year for each source.	20 & Table D	Changed operational hours of P 708C (EU ID 40) to 600 hours, as amended in Permit No. 9923-AC010, 3/21/00. Changed operational hours of P 719C (EU ID 41) to 1000 hours, as amended in Permit No. 035CP04, 9/7/04. Changed "per year" to "per 12-month period".

Permit No. 9323-AA008 Condition No.	Description of Requirement	Permit No. AQ0035TVP02 Condition No.	How Condition was Revised
11 and Exhibit B.A	Do not operate sources P605A and P605B (EU IDs 36 and 37) to more than a total of 1,160 hours per year.	20 & Table D	Changed limit to total of 2,500 hours per 12-month period for both P 605A and P605B (EU IDs 36 and 37), combined, as amended in Permit No. 035CP04, 9/7/04.
12	Do not operate source P 605B (EU ID 37) for more than 1,160 hours per year.	N/A	Condition rescinded on 11/18/96 amendment.
13 and Exhibit B.A	Do not operate sources P 708A and P 708B (EU IDs 38 and 39) for more than 600 hours per year for each source.	20 & Table D	Added operational limit such that unless there is a fire, P 708A is prohibited from operating when P 708B is operating, as amended in construction permit No. 9923-AC010, 12/31/02. Changed “per year” to “per 12-month period”.
14 and Exhibit B.A	Do not operate source H-612 (EU ID 13 for more than 125 hours per year.	N/A	EU ID 13 is no longer in use.
14a	Operate H-1701 (EU ID 29) with a low NO_X burner…	15.1 & Table B	No change.
14b and 30c	Operate H-780 with a low NO_X burner…	N/A	The emission unit was not included in the application source inventory. Tesoro never installed source H-780, per inspection conducted on 8/19/98.
19 and Exhibit C	H_2S of fuel gas monitoring requirements	35.3.a & 35.3.c	Did not include process heaters monitoring requirement for H_2S using the Del Mar Scientific (which is no longer in use) and other specified alternative methods. Permittee chose to monitor H_2S in accordance with 40 C.F.R. 60.105(a)(4). Incorporated in NSPS Subpart J monitoring requirements.
20 and Exhibits C and D, item 8a	BTX MR&R in each carbon adsorption system of EU IDs 47 and 48.	16.2.b, 16.2 & 16.3.c	Carried forward as amended in Permit No. 9923-AC010, 3/21/00 and Minor Permit No. AQ0035MSS02, 4/4/08. Removed references to EU ID 47; the unit is no longer in service and has been dismantled in 2009 and removed from the SI building per Tesoro’s 7/8/2010 response letter to ADEC.
21 and Exhibit C	Install, maintain, and operate continuous monitors as described in Exhibit C to measure water-to-fuel ratios, air contaminant emissions concentrations, and oxygen content in the exhaust.	20.2.a & 38.1.a	Same requirements; different format.

Permit No. 9323-AA008 Condition No.	Description of Requirement	Permit No. AQ0035TVP02 Condition No.	How Condition was Revised
22 and Exhibit C	Develop and maintain a QAP, keep a copy of the plan	22	Replaced the requirement to “develop” (as this has already been fulfilled) with “comply”. Added referenced Condition 106.2 for NESHAP Subpart ZZZZ monitoring requirements.
28	Notify the Department if two successive analyses of the groundwater influent in the air stripping unit exceed 5 mg of benzene per liter of water.	N/A	Condition has been deleted. Reason for original permit condition is no longer valid. This condition was needed for Condition 8, which had been rescinded in construction permit 9923-AC010, 3/21/2000.
30a	Submit a copy of the NO_X emission level certification…	N/A	No longer applicable. Condition already fulfilled.
30b	Develop and implement a continuous monitoring plan to quantify the amount of sulfur removed required by Condition 7…	N/A	Condition was rescinded on 4/27/95 amendment.
Exhibit B.A and Exhibit D, item 1	Operational-hour limits for EU IDs 13 and 30 – 41.	20 & Table D	Deleted EU ID 13; unit is no longer in use. Carried forward as amended in Permit Nos. 9923-AC010 Rev.1, 12/31/02; 035CP04, 9/7/04; and AQ0035MSS01, 4/23/07.
Exhibit D, item 2	Reporting requirements for Production Crude throughput, in barrels.	N/A	Not carried forward. There are no associated production crude throughput limits for the facility as part of the PSD avoidance, BACT limit, ORL, State or Federal standards requirements.
Exhibit D, item 3a & 3b	Recordkeeping and reporting requirements for fuel type and quantity used in certain process heaters (EU IDs 1, 2, 8 – 11, 20, 27, 28, and 30 – 33) and stationary source-wide.	N/A	Not carried forward. There are no associated fuel consumption limits as part of the PSD avoidance, BACT limit, ORL, state or federal standards requirements.
Exhibit D, item 4	Report the monthly high, low, and mean concentration in ppm and standard deviation of the fuel gas H_2S	N/A	Condition has been deleted. The Department no longer requires this information.

Permit No. 9323-AA008 Condition No.	Description of Requirement	Permit No. AQ0035TVP02 Condition No.	How Condition was Revised
Exhibits C & D, item 5	MR&R requirements for Oxygen content	20.2.a	Removed EU IDs 1-5 because monitoring of these emission units is not a part of the PSD avoidance, BACT, ORL, state or federal regulations. Removed EU IDs 20, 27, & 28 from O_2 content monitoring because these sources are not subject to O_2 content limits. Removed reporting requirement for minimum values because it is not necessary for compliance evaluation.
Exhibits C & D, item 6	Sulfur Recovery Unit (EU ID 101) –SO_2 MR&R requirements	35.3 & 35.4	Revised MR&R to reference NSPS Subpart J conditions. EU ID 101 rating has been increased to 26 LTPD and is now subject to NSPS Subpart J.
Exhibits C & D, item 7a	Aromatic Hydrocarbons MR&R for EU IDs 47 and 48.	16.3.a & 16.3.b	Carried forward as amended in Permit Nos. 9923-AC010, 3/21/00 and AQ0035MSS02, 4/4/08. Removed references to EU ID 47; the unit is no longer in service and has been dismantled in 2009 and removed from the SI building per Tesoro's 7/8/2010 response letter to ADEC. Rescinded the requirements to determine and report the flow rate, and the concentration of purgeable aromatic hydrocarbons from the air stripping unit (EU ID 48) once per month, per Minor Permit No. AQ0035MSS02.
Exhibit D, item 9	Report hours flaring other than pilot gas.	N/A	No longer required for flares.
32 and Exhibit E	Submit all information to show compliance with 18 AAC 50.110.	N/A	No longer applicable. Condition already fulfilled.

Table J – Comparison of Construction Permit No. 9923-AC010 Rev. 1 Conditions as revised through December 31, 2002 to Operating Permit No. AQ0035TVP02 Conditions[4]

Permit No. 9923-AC010 Rev. 1 Condition No.	Description of Requirement	Permit No. AQ0035TVP02 Condition No.	How Condition was revised/Why it is not included
25 – 26	Heat input limits for the replacement heater for Source No. H-403 (now H-403N, EU ID 10) and crude heater, Source No. H-101B (EU ID 2).	N/A	No longer necessary. These were approvals allowing the replacement of heaters H-403 and H-101B with higher rated capacities. The replacement heaters had been installed.
27 and Exhibit A	Allowable increase in capacities of the Sulfur Recovery Unit and Heaters H-1101, 1102, 1103, 1104, and 1106 (EU IDs 22 – 26), as set out in Exhibit A.	Section 2	Removed H-1101 (EU ID 21) from Table A; not an independent emission source and does not emit significant levels of regulated air pollutants. Same capacities for the heaters; SRU rating increased from 19.3 LTPD to 26 LTPD.
28.1	Alternate fuels for EU IDs 15, 16, and 18 – 28.	N/A	No longer necessary. This condition was an approval allowing the use of LPG, RG, or NG in certain process heaters (EU IDs 15, 16, and 18 – 28). No BACT or PSD determinations are adversely affected by use of these alternate fuels.
28.2, 29, and Exhibit B.A	Operational hour limits for EU IDs 32 & 33 (438 hour/year each), and 40 (600 hours/year).	20 & Table D	Changed “per year” to “per 12-month period”. Removed the 438-hour operational limit on diesel fuel each for EU IDs 32 and 33, as rescinded in Minor Permit No. AQ0035MSS01.
30, 31.3, 31.4, & Exhibits C & D, item 7a	Air strippers (EU IDs 47 & 48) modification requirements.	16	Removed the “install” requirement, which has already been fulfilled. Removed references to EU ID 47; the unit is no longer in service and has been dismantled in 2009 and removed from the SI building per Tesoro’s 7/8/2010 response letter to ADEC. Rescinded the requirements to determine and report the flow rate, and the concentration of purgeable aromatic hydrocarbons from the air stripping unit (EU ID 48) once per month, per Minor Permit No. AQ0035MSS02, 4/4/08.
30.2	Operate AS 1310 (EU ID 47) with no atmospheric venting, or control exhaust with Granulated Activated Carbon unit.	N/A	Not carried forward. EU ID 47 is no longer in service and has been dismantled in 2009 and removed from the SI building per Tesoro’s 7/8/2010 response letter to ADEC.

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

Permit No. 9923-AC010 Rev. 1 Condition No.	Description of Requirement	Permit No. AQ0035TVP02 Condition No.	How Condition was revised/Why it is not included
31.1 & Exhibit D, items 3a & 3b	Recordkeeping and reporting requirements for fuel type and quantity used in certain process heaters (EU IDs 1, 2, 8 – 11, 20, 27, 28, and 30 – 33) and stationary source-wide.	N/A	Not carried forward. There are no associated fuel consumption limits for EU IDs 1, 2, 8 – 11, 20, 27, 28, and 30 – 33 as part of PSD avoidance, BACT limit, ORL, state or federal standards requirements.
31.2, and Exhibit B.A.	Recordkeeping and reporting requirements for diesel firing time during each month in EU IDs 32 and 33.	N/A	Operational hour limit on diesel fuel for EU IDs 32 and 33 was rescinded in Minor Permit No. AQ0035MSS01.
31.5 and 20	Initial start-up source testing data report for Source ID 50	N/A	No longer applicable. Requirements already fulfilled.
32	Install, maintain, and operate low NO_X burners on EU IDs 2 & 10 (H-101B & H-403)…	18.1	Removed the “install” requirement, which has already been fulfilled.
33 & 34.1	Monitoring and reporting compliance for Condition 32 (source testing).	18.1.a & 18.2	Initial source testing already fulfilled. Replaced condition to conduct source testing as described in Condition 18.1.a to satisfy periodic monitoring for compliance with NO_X limit.
34.2	Within 45 days after receipt, submit a copy of the manufacturer’s NO_X emission level certification…	N/A	No longer applicable. Requirements already fulfilled
35 – 42	NSPS requirements	25 through 60	Included all applicable NSPS standards and MR&R requirements.
43.4, 43.5.2, 45 and Exhibit B	Sulfur BACT limits and MR&R requirements	12 through 14, 35.3, 39.1.d(i), 39.2.a, 39.2.b, & 39.2.c	Corrected H_2S content limits in Refinery fuel gas from “162 ppm or 238 mg/dscm” to “162 ppmv or 230 mg/dscm”. Corrected units in Exhibit B, Section E.2 from “dry standard cubic feet” to “dry standard cubic meter.”
43.5.3	Report the monthly average and high fuel gas concentration of sulfur as percentage and in ug/dscm in the quarterly operating report.	13.2 & 13.3	Same requirements, different format. Added “calculate and record”.

Permit No. 9923-AC010 Rev. 1 Condition No.	Description of Requirement	Permit No. AQ0035TVP02 Condition No.	How Condition was revised/Why it is not included
48, 49, Exhibits B & C	Operating requirements for Soil Vapor Extraction Systems and Thermal Oxidation Systems (Source IDs 43 – 46).	19	Added VOC and HAP emissions limits, 95 % control efficiency limit for Thermal Oxidation Units, and VOC and HAPs emissions testing in accordance with 40 C.F.R. 60 Appendix A Method 18 on a monthly, as proposed in the application document (received 11/15/02) and Public Notice comment. Removed EU ID 46; unit is no longer in use.
Exhibit A	Source Inventory	Table A	Updated the list based on new information after 12/31/02. Added SRU flare, TK 05, Process Units, VU drains, and API canals (EU IDs 43, 54, 101 – 110, 115 & 116). "RG" (refinery gas) was replaced with "FG" (fuel gas) to clarify that the fuel gas (described as refinery gas) used in the facility is not a "pure refinery gas" but rather a fuel gas mixture of RG, NG, and LPG. New updates provided in the operating permit renewal application are as noted in Table A footnotes.
Exhibit B	Air contaminant emission limits, standards, fuel specifications and operating limits.	1, 6, 10 through 20 Table B, Table C, & Table D	Included only those limits that shall be used for compliance purposes as established by PSD avoidance, BACT, ORL, state and federal regulations. Updated State emissions standards, BACT and Owner Requested limits to be concurrent with recent updates on State regulations and construction permit revisions (Permit Nos. 035CP04, AQ0035MSS01, and AQ0035MSS02).
Exhibit C	Process monitoring requirements for Hydrogen Sulfide in fuel gas.	13 & 35.3	Did not include process heaters monitoring requirement for SO_2 to install monitor pursuant to 40 C.F.R. Part 60.105(a)(3) or H_2S monitoring using the Del Mar Scientific (which is no longer in use) and other specified alternative methods. Permittee chose to monitor H_2S in accordance with 40 C.F.R. 60.105(a)(4). Removed the requirement "to install" as this requirement has already been completed. Incorporated in NSPS Subparts GG & J monitoring requirements.

Permit No. 9923-AC010 Rev. 1 Condition No.	Description of Requirement	Permit No. AQ0035TVP02 Condition No.	How Condition was revised/Why it is not included
Exhibit B.A and Exhibit D, item 1	Operational-hour limits for EU IDs 13 and 30 – 41.	20 & Table D	Deleted EU ID 13; unit is no longer in use. Carried forward as amended in Permit Nos. 9923-AC010 Rev. 1, 12/31/02; 035CP04, 9/7/04; and AQ0035MSS01, 4/23/07.
Exhibit D, item 2	Reporting requirements for Production Crude throughput, in barrels.	N/A	Not carried forward. There are no associated production crude throughput limits for the facility, as part of PSD avoidance, BACT limit, ORL, state or federal standards requirements.
Exhibit D, item 4	Report the monthly high, low, and mean concentration in ppm and standard deviation of the fuel gas H_2S	N/A	Condition has been deleted. The Department no longer requires this information.
Exhibits C & D, item 5	MR&R requirements for Oxygen content	20.2.a	Removed EU IDs 1-5 because monitoring of these emission units is not a part of the PSD avoidance, BACT, ORL, state or federal regulations. Removed EU IDs 20, 27, & 28 from O_2 content monitoring because these sources are not subject to O_2 content limits. Removed reporting requirement for minimum values because it is not necessary for compliance evaluation.
Exhibits C and D, item 6	Sulfur Recovery Unit –SO_2 MR&R requirements	35.3 & 35.4	Revised MR&R to reference NSPS Subpart J Conditions. EU ID 101 rating has been increased to 26 LTPD and is now subject to NSPS Subpart J.
Exhibit D, item 8	Report hours flaring other than pilot gas.	N/A	No longer required for flares.

Table K – Comparison of Construction Permit No. 035CP04 Conditions to Operating Permit No. AQ0035TVP02 Conditions[5]

Permit No. 035CP04 Condition No.	Description of Requirement	Permit No. AQ0035TVP02 Condition No.	How Condition was Revised
1, 5, and 6	Authorization to install tank bottom cleaning equipment and process (labeled as EU IDs 111 – 114 in AQ0035TVP01). MR&R for state SO_2 standard for fuels used in EU IDs 111 – 114).	N/A	Removed EU IDs 111 – 114 and associated MR&R. Permittee states in its renewal application that the units were never installed nor are there any plans to install them in the future.
2	Revised operating limits of EU IDs 36, 37, and 41.	Table D	Carried forward as revised.
3	Tank maintenance activities MR&R and emission rates.	21	Same requirements.
4	Increase the stack height of Source ID 34, “EG-704,” to no less than seven meters.	N/A	Obsolete requirement. Already fulfilled on 3/3/05.

Table L – Comparison of Minor Permit No. AQ0035MSS01 Conditions to Operating Permit No. AQ0035TVP02 Conditions[6]

Permit No. AQ0035MSS01 Condition No.	Description of Requirement	Permit No. AQ0035TVP02 Condition No.	How Condition was Revised
2 and 3	Condition 2 rescinds Condition 31.2 listed in Permit No. 9923-AC010, Revision 1, which requires the Permittee to record and report EU IDs 32 and 33 diesel firing time during each month. Condition 3 rescinds the requirement to “indicate each type of fuel and the quantity burned in each source, expressed in appropriate units” as it pertains to GT-1400 and GT-1410 (EU IDs 32 and 33) listed in Exhibit D of Permit No. 9923-AC010, Revision 1.	N/A	Removed the rescinded conditions. Note that Condition 9 now requires the Permittee to record the time of operation on backup liquid fuels for particulate surrogate monitoring.

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

Permit No. AQ0035MSS01 Condition No.	Description of Requirement	Permit No. AQ0035TVP02 Condition No.	How Condition was Revised
4 and 5	Condition 4 rescinds Condition 28.2 listed in Permit No. 9923-AC010, Revision 1, which limits operation of EU IDs 32 and 33 to a maximum of 438 hours per year on #2 fuel oil. Condition 5 rescinds the 438 hour per year with diesel operating limit for GT-1400 and GT-1410 (EU IDs 32 and 33) listed in Exhibit B, Part A of Permit No. 9923-AC010, Revision 1.	Table D	Removed 438 hours/year operational limits and associated MR&R for EU IDs 32 and 33.
7	SO_2 PSD Modification Avoidance provisions for EU IDs 32 and 33. Limit liquid fuel sulfur content for fuel combusted in EU IDs 32 and 33 to less than 0.0225 % sulfur by weight at all times.	17	Carried forward revised liquid fuel sulfur content limit for fuel combusted in EU IDs 32 and 33. Used the phrase "an appropriate method listed in 18 AAC 50.035(b)-(c) and 40 C.F.R. 60.17 incorporated by reference in 18 AAC 50.040(a)(1)" instead of "an alternative method approved in writing by the Department". This text was discarded during the Revised Action Plan submitted to EPA on July 15, 2007, as a result of the EPA Audit of the September 2006 Title V Program Review and is not to be used in subsequent permits since it allows a Permittee to bypass the public process for changing monitoring requirements by submitting off-permit requests to change monitoring methods. Deleted obsolete requirement in Condition 7.2 of Minor Permit No. AQ0035MSS01 to conduct sulfur content monitoring within 14 days of issuance.

Table M – Comparison of Minor Permit No. AQ0035MSS02 Conditions to Operating Permit No. AQ0035TVP02 Conditions[7]

Permit No. AQ0035MSS02 Condition No.	Description of Requirement	Permit No. AQ0035TVP02 Condition No.	How Condition was Revised
1	Rescinds and removes the requirements for ground water remediation to determine and report the flow rate, and the concentration of purgeable aromatic hydrocarbons from each air stripping unit (EU IDs 47 and 48) once per month. These requirements originated from Exhibit C of Permit No. 9923-AC010, Rev. 1.	N/A	Removed the rescinded requirements.

Table N – Comparison of Title V Permit No. AQ0035TVP01 Conditions (as revised through Revision 3) to Operating Permit No. AQ0035TVP02 Conditions[8]

Permit No. AQ0035TVP01 Condition No.	Description of Requirement	Permit No. AQ0035TVP02 Condition No.	How Condition was Revised
Section 1	Identification	Section 1	Updated information.
Section 3	Source Inventory	Section 2	Updated the list based on new information, as noted in Table A footnotes. Other changes: EU IDs 22-26: SRU heaters corrected fuel type from FG/NG/LPG to NG per renewal application. EU ID 25: Renamed from "SRU Incinerator Stack" to SCOT Tail Gas Burner". EU ID 26: Renamed from SCOT Tail Gas Burner" to "SRU No. 4 Reheater" EU ID 58: Revised fuel type from Jet A/UL to Jet A, per 6/27/08 admin change request. EU ID 119 (H-1801) – added; gas-fired Naphtha splitter Reboiler installed in October, 2010 EU ID 120 (Tank-67) – added; to be installed in 2011 and Subject to NSPS Subpart Kb.
All Conditions	References to affected emission units.	All Conditions	Updated conditions with new EU IDs accordingly.

[7] This table does not include all standard and general conditions.
[8] This table does not include all standard and general conditions.

Permit No. AQ0035TVP01 Condition No.	Description of Requirement	Permit No. AQ0035TVP02 Condition No.	How Condition was Revised
1.1	Assessable potential to emit of 2,404 TPY	117.1	Changed to 2,561 TPY, as updated in the renewal application processing.
3.a	Visible Emissions Standard - more than 20 percent for a total of more than three minutes in any one hour.	N/A	Deleted; standard no longer in effect.
3.1, 4.1, & 19	VE & PM MR&R for multi-fuel fired units	1.2 & 9	Removed EU IDs 34, 35, & 38-40. These units burn only diesel fuel.
3.1, 4.1, & 19	VE & PM MR&R for multi-fuel fired units	1.3	For EU IDs 34 & 35, changed MR&R to fit requirements for potentially insignificant units.
3.1, 4.1, & 19	MR&R for multi-fuel fired units	1.4 & 2 through 4	For diesel fuel-fired units, EU IDs 38 – 40, changed MR&R to fit requirements for liquid fuel fired units; i.e., removed the 400-hour threshold for a full-blown VE MR&R.
3.3, 4.3, & 19	MR&R for dual fuel-fired units, EU IDs 32 & 33, using fuel gas as primary fuel. Conditions 3.3 & 4.3 were deleted in Revision 3.	1.2 & 9	Changed language so as not to refer fuel gas as primary fuel. The 438 operational-hour limit on diesel fuel for each EU IDs 32 & 33 has been removed in Minor Permit No. AQ0035MSS01.
3.4 & 25	VE MR&R for flares, EU IDs 42 & 43.	1.5 & 5	New template language; changed “observe all or maximum of 6 flare events” to “observe one daylight flare event within 12 months of the preceding flare event observation”.
3.5 & 4.5	VE & PM MR&R for EU IDs 111-114 (Tank Bottom Cleaning Equipment).	N/A	Deleted conditions. EU IDs 111-114 were never installed.
5	Sulfur Compound Emissions for fuel burning units	10	Added the Sulfur Recovery Unit (EU ID 101); unit has been upgraded to 26 LTPD and now subject to 18 AAC 50.055(d)(2); see Condition 10.5.
6	Sulfur Compounds Emissions for Tank Maintenance Emission Units.	N/A	Condition removed. EU IDs 111 – 114 were never installed.
7.1	Fuel Sulfur BACT limits for Diesel fuel & MR&R	10.6, 10.7, & 12	Deleted EU IDs 32 and 33; limit revised in Minor Permit No. AQ0035MSS01; see Condition 17. Streamlined MR&R requirements.

Permit No. AQ0035TVP01 Condition No.	Description of Requirement	Permit No. AQ0035TVP02 Condition No.	How Condition was Revised
7.2	Fuel Sulfur BACT limits for Fuel Gas (NG, LPG, and RG combined)	10.6, 10.7, & 13	Added “or 230 mg/dscm H_2S” instead of referencing Subpart J condition. Streamlined MR&R requirements.
7.3	Fuel Sulfur BACT limits for NG and LPG	10.6, 10.7, & 14	Streamlined MR&R requirements.
7.4 & 7.5	Fuel Sulfur BACT limits recordkeeping and reporting	10.6 & 10.7	Same requirements, different format. Streamlined MR&R requirements.
8	For Sulfur Recovery Unit/Tail Gas burner (EU ID 101) BACT limits	10.5, 10.6, 10.7, 35.3 & 35.4	Updated applicable State and Federal standards. EU ID 101 rating increased to more than 20 LTPD; unit is now subject to standards under 18 AAC 50.055(d)(2) and NSPS Subpart J. Referenced Subpart J MR&R conditions.
New Condition per Revision 3	Fuel Sulfur Limit for EU IDs 32 and 33; ORL to avoid PSD, authorized under Minor Permit No. AQ0035MSS01	17	Used the phrase “an appropriate method listed in 18 AAC 50.035(b)-(c) and 40 C.F.R. 60.17 incorporated by reference in 18 AAC 50.040(a)(1)” instead of “an alternative method approved in writing by the Department”. Deleted Minor Permit No. AQ0035MSS01 Condition 7.2; obsolete – sulfur content monitoring within 14 days of permit issuance. Added a footnote to clarify changes made on the deletion of EU IDs 33 & 32 operational hour and fuel sulfur content limits on diesel fuel.
10 & Table 3	NO_X BACT Limits (EU IDs 6-11, 20, & 27 – 29)	15, 18, Table B, & Table C	Divided Condition 10 in Permit No. AQ0035TVP01 into two sets: one for NO_X BACT limits which apply to EU IDs 6-9, 11, 20, & 20-27 (Condition 15 & Table B of Permit No. AQ0035TVP02) and one for NO_X ORL to avoid PSD which apply to EU IDs 2 & 10 (Condition 18 of Permit No. AQ0035TVP02 & Table C). The NO_X limits established for EU IDs 2 & 10 are ORL for avoidance of PSD classification.

Permit No. AQ0035TVP01 Condition No.	Description of Requirement	Permit No. AQ0035TVP02 Condition No.	How Condition was Revised
10.1d & 13.2	If requested by the Department, conduct NO_X source testing on EU IDs EU IDs 20 & 27 – 29 and EU IDs 2 & 10.	15.1.a & 18.1.a	Added EU IDs 6-9 & 11. Replaced condition to conduct source testing within 12 months of the effective date of this permit to satisfy periodic monitoring for compliance with NO_X limit.
11.1b, 11.5, & 11.7c	If operating with not atmospheric venting… Determine and report the liquid flow rate and the concentration of purgeable aromatic hydrocarbons from each air stripping unit (EU IDs 47 and 48).	N/A	Requirements rescinded, per Minor Permit No. AQ0035MSS02.
12	Quality Assurance Plan	22	Updated cross-referenced conditions to include QAP required for Conditions 19 and 106.2.
14	Soil Vapor Extraction Operations	19	Deleted EU ID 46; the unit is no longer in use. Changed the phrase "total VOC and HAP emissions to exceed 16.2 tons and 7.4 tons, respectively, from Source ID(s) 44 – 46…" to "total combined VOC emissions to exceed 16.2 tons and total combined HAP emissions to exceed 7.4 tons from EU IDs 44 and 45…" for clarity.
9 & 15, Table 2	Operational Hour Limits (EU IDs 38 & 39)	20 & Table D	Merge both conditions under Condition 20. Deleted EU ID 13 (no longer in use) and EU IDs 32 & 33 (hour-limit rescinded in Minor Permit No. AQ0035MSS01).
16	Tank Maintenance Activities	21	Updated footnote for "tank maintenance emission unit" to not include emission units listed in Emission Unit Inventory tables of current Title V renewal Permit Nos. AQ0035TVP02, AQ0033TVP02, and AQ0036TVP02.
17	Increase the stack height of EU ID 34 no later than 180 days of this permit's issue date…	N/A	Obsolete requirement; already fulfilled on 3/3/05.
Section 6 (Conditions 18 through 24)	VE and PM MR&R	2 through 5 & 7 through 9	Updated with current template language.

Permit No. AQ0035TVP01 Condition No.	Description of Requirement	Permit No. AQ0035TVP02 Condition No.	How Condition was Revised
N/A	NSPS Subpart Dc	37	Added condition to reflect applicable Subpart Dc requirements to EU ID 29.
34	NSPS Subpart GG NO_X	38	Updated condition language to match the current applicable Subpart GG regulations. 50.080 (ice fog) (add condition in state std with Ice Fog) Removed to Condition 11 "The Permittee shall notify the Department if ice fog conditions are observed. Discontinue water injection in Source ID(s) 32 and 33 *[GT-1400 and GT-1410]* when the Permittee deems ice fog a traffic hazard"
35	NSPS Subpart GG Sulfur	39	Updated condition language to match the current applicable Subpart GG regulations.
35.1b	Alternative Sulfur Monitoring Plan	39.1.d(ii)	Incorporated with Subpart GG Sulfur monitoring for gaseous fuels.
36	NSPS Subpart J SO_2	35	Added EU IDs 101, 115, & 116 as affected emission units. Added new conditions to reflect applicable standard and MR&R for Sulfur Recovery Unit, EU ID 101. Updated condition language to match the current applicable Subpart J regulations.
38	NSPS Subpart K	46	Changed the condition to reference NESHAP Subpart CC requirements under Condition 70 as compliance with NSPS Subpart K.
39	NSPS Subpart Ka	47	Added conditions to reflect applicable standards and corresponding MR&R requirements.
None	NSPS Subpart Kb	48 - 53	Added Subpart Kb conditions to reflect applicable standards and corresponding MR&R requirements for EU ID 120.
40	NSPS Subpart GGG	55	Added EU ID 117 as an affected emission unit.

Permit No. AQ0035TVP01 Condition No.	Description of Requirement	Permit No. AQ0035TVP02 Condition No.	How Condition was Revised
41	NSPS Subpart UU	54	Added conditions to reflect applicable standards and corresponding MR&R requirements.
42	NSPS Subpart QQQ	60	Added a new condition to reflect requirements for EU ID 108 from EPA-approved Alternate Monitoring Plan issued 12/27/2003.
47	NESHAP Applicability Determination	126	Move the condition under the general conditions section. Updated the condition per current template language.
48	Asbestos NESHAP	125	Move the condition under the general conditions section.
49	NESHAP 61 Subpart FF	62 - 69	Added conditions to reflect applicable standards and corresponding MR&R requirements.
50	NESHAP 63 Subpart CC	70	Corrected EU ID numbers. Added EU IDs 57, 59, & 60 as affected emission units.
51	NESHAP 63 Subpart UUU	73 - 78	Corrected EU ID numbers. Separated NESHAP Subpart A general requirements from specific Subpart UUU requirements.
N/A	NESHAP 63 Subpart GGGGG	71 & 72	New conditions to reflect the exemption provisions of Subpart GGGGG.
N/A	NESHAP 63 Subpart ZZZZ	103 & 104.3	New conditions to reflect applicable Subpart ZZZZ requirements to the affected emission units, EU IDs 36 & 37.
N/A	40 C.F.R. 64 Compliance Assurance Monitoring (CAM)	111	New condition to reflect CAM requirements as applied to EU ID 45.
N/A	40 C.F.R. 68 Risk Management Plan (RMP)	112	New condition to reflect RMP requirements as applied to the stationary source.

Table O – Comparison of Operating Permit No. AQ0035TVP02 Revision 3 to Operating Permit No. AQ0035TVP02 Revision 4 Conditions[9]

Permit No. AQ0035TVP02 Rev 3 Condition No.	Description of Requirement	Permit No. AQ0035TVP02 Rev 4 Condition No.	How Condition was Revised
Table A	Emission Unit Inventory	Table A	EU ID 128 was added under Process Units as "Amine Unit"; a section for "NSPS GGGa Compressors" was added, as well as EU IDs 126 and 127
36.8e	Flare - Root Cause Analysis and Corrective Action Analysis	36.8e	Revised according to the Subpart Ja amendments in the Federal Register
36.10b(v)	Monitoring	36.10b(v)	Revised according to the Subpart Ja amendments in the Federal Register.
36.11	Recordkeeping	36.11	Revised according to the Subpart Ja amendments in the Federal Register.
36.12b(ii)	Reporting	36.12b(ii)	Revised according to the Subpart Ja amendments in the Federal Register.
56	NSPS Subpart GGGa/VVa Standards	56	Added EU IDs 100, 102, 103, 104, 117, 126, 127 & 128 [Hydrogen Unit, PRIP Unit, DIB Unit, Vacuum Unit, DDU Unit, C-10A, C-10B, and Amine Unit] as affected emission units. Also added "in VOC service" for affected equipment.

[9] This table does not include all standard and general conditions.

Table P – Comparison of Operating Permit No. AQ0035TVP02 Revision 4 to Operating Permit No. AQ0035TVP02 Revision 5 Conditions[10]

Permit No. AQ0035TVP02 Rev 4 Condition No.	Description of Requirement	Permit No. AQ0035TVP02 Rev 5 Condition No.	How Condition was Revised
Section 1	Stationary Source Information	Section 1	The job title of the Permit Contact was revised according to information provided in Form A1 of the application.
20	Operational Limits	20	An additional row was added to Table D in order to lower the O_2 operating limit for EU IDs 8 and 9 from not-to-exceed (NTE) 6% O_2 to NTE 4.5% O_2.
Table H	Emissions Summary	Table H	Emission increases from the Flare Gas Recovery Project (Revision 4) were added.

Table Q – Comparison of Operating Permit No. AQ0035TVP02 Revision 5 to Operating Permit No. AQ0035TVP02 Revision 6 Conditions[11]

Draft Permit No. AQ0035TVP02 Rev 5 Condition No.	Description of Requirement	Permit No. AQ0035TVP02 Rev 6 Condition No.	How Condition was Revised
Table A	Emission Unit Inventory	Table A	Removed thermal oxidizer from the “Emission Unit Description” column for EU IDs 44 and 45
Condition 1	Visible Emissions Standard - more than 20 percent averaged over any six consecutive minutes.	Condition 1	Removed EU IDs 44 and 45
Condition 1.1	Visible Emissions Standard – Burn only gas as fuel	Condition 1.1	Removed EU IDs 44 and 45
Condition 6	Particulate Matter Standard – more than 0.05 grains per dscf	Condition 6	Removed EU IDs 44 and 45
Condition 6.1	Particulate Matter Standard – Burn only gas as fuel	Condition 6.1	Removed EU IDs 44 and 45

[10] This table does not include all standard and general conditions.
[11] This table does not include all standard and general conditions.

Draft Permit No. AQ0035TVP02 Rev 5 Condition No.	Description of Requirement	Permit No. AQ0035TVP02 Rev 6 Condition No.	How Condition was Revised
Condition 10.2	Particulate Matter Standard – Limit sulfur dioxide, equal to the concentration of uncontrolled emissions that would result from burning gas containing 230 mg/dscm H_2S	Condition 10.2	Removed EU IDs 44 and 45
Condition 19	VOC and HAP limit	Condition 19	Revised to indicate VOC and HAP emissions from EU IDs 44 and 45 will be controlled via carbon adsorption system.
Condition 107	Compliance Assurance Monitoring	Condition 111	Revised to remove the December 28, 2007 date.
Condition 115	Good Air Pollution Control Practice	Condition 119	Removed EU IDs 44 and 45
Section 13	Copliance Assurance Monitoring Plan	Section 14	Revised to indicate VOC and HAP emissions from EU IDs 44 and 45 will be controlled via carbon adsorption system.

Table R – Comparison of Operating Permit No. AQ0035TVP02 Revision 6 to Operating Permit No. AQ0035TVP02 Revision 7 Conditions[12]

Permit No. AQ0035TVP02 Rev 6 Condition No.	Description of Requirement	Permit No. AQ0035TVP02 Rev 7 Condition No.	How Condition was Revised
20 and Table D	Operational Limits	20 and Table D	O_2 operating limits for EU IDs 8 and 9 in Table D were increased from NTE 4.5% O_2 to NTE 7.7% O_2 for EU ID 8 and 9% for EU ID 9.
20.2.a(i) and 20.3.a	Averaging period	20.2.a(i) and 20.3.a	Revised to specify that the averaging period is based on three-hour rolling averages
117 118 145 148 Section 13	Assessable Emissions and Estimates Operating Reports Emission Inventory Reporting Emission Inventory Form	117 118 145 148 Section 13	Revised to match the new updated SPC language as revised May 18, 2016
138 142 146	Test Reports Submittals Annual Compliance Certification	138 142 146	Updated to align with the changes on the number of reports and other submittals to one copy.
118.1	ADEC address	118.1	Corrected the zip code number from 99801 to 99811
146.3	EPA address	146.3	Updated address with the current EPA address for submittal of a copy of an Annual Compliance Certification report.
149	Permit Applications and Submittals, footnote 20, EPA address	149	Edited to closely match the text in SPC XIV by deleting the unnecessary footnote in Condition 149.1. In addition, updated the EPA address for submitting permit applications in Condition 149.2 and corrected the citations.
152	Department's Anchorage Office address for submitting a permit application	152	Added a footnote to provide the correct Department's Anchorage Office address for submitting a permit application.

[12] This table includes only the terms and conditions of Permit No. AQ0035TVP02 Revision 6 that have been revised in Permit No. AQ0035TVP02 Revision 7 and does not include those that were not revised.

Table S – Comparison of Operating Permit No. AQ0035TVP02 Revision 7 to Operating Permit No. AQ0035TVP02 Revision 8 Conditions[13]

Permit No. AQ0035TVP02 Rev 7 Condition No.	Description of Requirement	Permit No. AQ0035TVP02 Rev 8 Condition No.	How Condition was Revised
Title V Significant Modification			
20 and Table D	Operational Limits	20 and Table D	O_2 operating limits for EU ID 11 in Table D was increased from NTE 6% O_2 to NTE 8.8% O_2 as measured wet by CEMS.
Title V Administrative Amendment and Minor Modification			
Table A	Emission Unit Inventory	Table A	Added EU ID 129 in Table A because it is subject to NESHAP Subpart DDDDD.
1, 6, and 10.2	State Visible Emissions, Particulate Matter, and Sulfur Compound emissions standards	1, 6, and 10.2	Added EU IDs 22 – 24, 26, and 129 (now subject to NESHAP Subpart DDDDD) as subject to the applicable state standards for visible emissions, particulate matter, and sulfur compound emissions.
1.1 and 6.1	State Visible Emissions and Particulate Matter MR&R	1.1 and 6.1	Added EU IDs 22 – 24, 26, and 129 in Conditions 1.1 and 6.1 to indicate appropriate visible emissions and particulate matter monitoring scheme for these units.
10.2 and 10.3	State Sulfur Compound emissions standards	10.2 and 10.3	Corrected the affected EU IDs subject to each sulfur compound standards specified in each condition by moving EU ID 48 to Condition 10.2 and deleting EU IDs 30, 31, 48 and 119 from Condition 10.3.
24 and footnote 10	Insignificant Emissions Units	24 and footnote 10	Corrected placement of footnote 10 to after EU ID 40. Added "NESHAP Subpart ZZZZ requirements" in the footnote.
None	40 C.F.R. 63 Subpart DDDDD applicable requirments	107 - 110	Added conditions to provide applicable requirements of 40 C.F.R. 63 Subpart DDDDD, per Tesoro's June 20, 2016 application for minor operating permit revision.
None	General Conditions	Section 5	Fixed section heading format; all subsequent section numbers and crossreferences are updated accordingly.

[13] This table includes only the terms and conditions of Permit No. AQ0035TVP02 Revision 7 that have been revised in Permit No. AQ0035TVP02 Revision 8 and does not include those that were not revised.

Permit No. AQ0035TVP02 Rev 7 Condition No.	Description of Requirement	Permit No. AQ0035TV P02 Rev 8 Condition No.	How Condition was Revised
115	Good Air Pollution Control Practices	119	Updated the affected EUs by removing those that are subject to NESHAP and NSPS requirements and adding EU IDs 44 and 45 (soil vapor extraction units). Deleted Condition 119.4 (“EU IDs 38, 39, and 41 are subject to this condition only until the compliance date set out in Condition 104.1”) because no longer applicable.

NON-APPLICABLE REQUIREMENTS

Each permit is required to contain a discussion of all applicable requirements as set forth in 40 C.F.R. 71.6(a) adopted in 18 AAC 50.040(j). This section discusses requirements that are not included for specific reasons.

40 C.F.R. 64 CAM Rule: The requirements of 40 C.F.R. 64 applies to a pollutant-specific emissions unit(s) at a major source if the unit satisfies **all** of the following criteria: (1) the emission unit is subject to an applicable emission limitation or standard; (2) the unit uses a control device to comply with any such applicability emission limitation or standard; and (3) the unit has potential pre-control device emissions of the applicable regulated air pollutant equal to or greater than the major source thresholds for the applicable regulated air pollutant. Exemptions are provided for those sources monitoring for compliance in any other post November 15, 1990 EPA rule, or any rule with continuous compliance monitoring requirements.

Emission Units not subject to CAM

EU ID 42 *[J-801 Refinery Flare]*

Possible reasons for CAM applicability: Each of the process units listed in Table A is vented through the main refinery flare, EU ID 42. EU ID 42 is also used as a control device for compliance with the NSPS Subpart GGG/VV (Condition 55) and for meeting the requirements of the NESHAP Subpart UUU (Condition 78) in the control of total organic compound (TOC) emissions. As a control device, the unit is subject to the requirements of 40 C.F.R. 60.18 as referenced in 40 C.F.R. 60.482-10(d) Subpart VV to comply with the provisions of NSPS Subpart GGG.

Why CAM does not apply: Under Condition 34 the Permittee is required to install a CEMS to continuous monitor either VOC content or Btu value of flare gases. Therefore, per 40 C.F.R. 64.2(b)(1)(vi) of the CAM rule, the flare is not subject to CAM as it does not apply to “emission limitations or standards for which a Part 70 or 71 permit specifies a continuous compliance determination method, as defined in 40 C.F.R. 64.1.

If the Permittee elects to use the flare as a control device for the emissions of total organic compounds (TOC), EU ID 42 may also be exempt from CAM rule, per 40 C.F.R. 64.2(b)(1)(i), because the emission limitations or standards in NESHAP Subpart UUU was proposed by the Administrator after November 15, 1990 pursuant to section 111 or 112 of the Act.

Sulfur Recovery Unit, EU ID 101, SRU flare EU ID 43 and SCOT tail gas burner EU ID 25

Possible reasons for CAM applicability: The acid gas and sour gas feeds from the Sulfur Recovery Unit are routed to the SRU flare in case of an SRU shutdown to control emissions. The SCOT tail gas burner on the SRU converts the trace unreacted H_2S to SO_2 prior to venting thus controlling H_2S emissions.

Why CAM does not apply: Each of EU IDs 25, 43, and 101 are not subject to the CAM rule because none of these emission units meet all applicability criteria for CAM applicability as stated above.

Additionally, EU ID 25 is subject to the emission standards of NSPS Subpart J, as set out in Condition 35. Because NSPS Subpart J requires continuous monitoring of a regulated pollutant (SO_2), emitted from EU ID 25, as well as continuous monitoring and recording of the concentration of H_2S in fuel gases before being burned in EU ID 25, EU ID 25 is not subject to CAM.

Finally, neither of the control devices EU IDs 25 and 43 uses an assumed control device emission reduction factor that could be affected by the actual operation and maintenance of the control device, but rather requires continuous monitoring by the Subpart. Therefore, EU IDs 101, 43 and 25 meet the exemption from CAM under 40 C.F.R. 64.2(b)(1)(vi).

Inapplicable NSPS requirements

Subpart Ja

The applicability trigger date for NSPS Subpart Ja was May 14, 2007 for all sulfur recovery units (SRU) and fuel gas combustion devices, and on June 24, 2008 for flares. Sources that are new, reconstructed or modified after the applicability date become subject to the emission limits and work practice standards of Subpart Ja. However, but for the flare system (EU 42), the Kenai Refinery has not constructed, reconstructed, or modified an affected source after the rule applicability date , and therefore has not yet triggered Subpart Ja.

A new heater was installed in October 2010 as part of a Benzene Reduction project. This heater did not trigger Subpart Ja since it combusts natural gas only, not fuel gas and is exempted under 60.100a(a). The Benzene Reduction Project also included new tie-ins to the main refinery flare to manage process upset gases. On June 1, 2012, the EPA Administrator lifed the stay on the Subpart Ja modification definition. As such, the flare system is subject to Subpart Ja. But as indicated above, other activities are not, as yet, subject to Subpart Ja. Since Subpart Ja was promulgated after the 1990 Clean Air Act Amendments, affected facilties and emission controls are not subject to CAM.

Inapplicable NESHAP requirements

Subpart ZZZZ (RICE MACT).

Possible reasons for CAM applicability: EU IDs 36 and 37 are required to meet CO and Formaldehyde limits under the NESHAP Subpart ZZZZ. To meet these limits, the Permittee has installed a catalyst on the exhaust system to act as a control device.

Why CAM does not apply: Since EU ID 36 and 37 do not individually exceed formaldehyde emissions of 10 tons per year or another regulated emission in excess of major, the addition of control device on these engines would not trigger CAM because the pre-control device emissions for each pollutant-specific emissions unit do not exceed the HAP major source threshold.

Subpart YYYY (Turbine MACT).

The Kenai Refining facility is considered a major source of HAP and operates stationary combustion turbines per 40 C.F.R. 63.6085. The turbines GT1400 and GT1410 located at the facility are subject to the provisions of 40 C.F.R. Part 63 Subpart YYYY for *existing* turbines. An existing turbine is defined at 40 C.F.R. 63.6090(a)(l) as a turbine that commenced construction or reconstruction on or before January 14, 2003. The turbines at the Kenai facility were constructed in 1998, thus are considered "*existing stationary combustion turbines*". However turbines EU ID 32 or 33 are classified as “existing” but have no requirements under the existing standard as stated in 40 C.F.R. 63.6090(b)(4). “*Existing stationary combustion turbines in all subcategories do not have to meet the requirements of this subpart and of subpart A of this part. No initial notification is necessary for any existing stationary combustion turbine, even if a new or reconstructed turbine in the same category would require an initial notification*.” The engine exchange project (EU IDs 31A and 33A) are a replacement of the engine core component and no other components of the turbine generator sets. This engine exchange project will cost approximately $2.4 million, or less than 50 percent of the costs to construct new turbine sources. The engine exchange project is not considered "*reconstruction*" of the turbines because the definition in accordance with 40 C.F.R. 63.2 is not met. Thus, the stationary turbines remain "*existing sources*" and do not have any applicable requirements per 40 C.F.R. 63.6090(b)(4).

STATEMENT OF BASIS FOR THE PERMIT CONDITIONS

The state and federal regulations for each condition are cited in Operating Permit No. AQ0035TVP02. The Statement of Basis provides the legal and factual basis for each term and condition as set forth in 40 C.F.R. 71.6(a)(1)(i).

Conditions 1 through 5 & 9, Visible Emissions Standard and MR&R

Legal Basis: These conditions ensure compliance with the applicable requirements in 18 AAC 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 12, 14 through 20, 22 – 43, 115, 116, 119, and 129 are fuel-burning equipment or industrial processes.

U.S. EPA incorporated these standards as revised in 2002 into the SIP effective September 13, 2007.

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). The Permittee shall not cause or allow the equipment to violate these standards.

The Permittee must monitor, record, and report emissions in accordance with Conditions 2 through 5 and 9 of the permit.

Conditions 2 through 5 MR&R Conditions are standard conditions adopted into regulation pursuant to AS 46.14.010(e). These conditions have been modified in this permit as follows. The Department added a provision that clarifies the option to continue an established monitoring frequency for renewal permits. In an attempt to provide more latitude and opportunity to observe visible emissions from stationary sources with flares, the Department made some adjustments to Condition 5.

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

Gas-Fired Fuel Burning Equipment:

<u>Monitoring</u> – The monitoring of gas-fired emission units, EU IDs 1 – 12, 14 – 20, 22 – 31, 36, 37, 41, 115, 116, 119, 121, and 129, for visible emissions is waived, i.e. no source testing will be required. The Department has found that natural gas-fired equipment inherently has negligible visible emissions. However, the Department can request a source test for PM emissions from any smoking equipment.

<u>Reporting</u> – As provided for in Condition 1.1, the Permittee must state in each operating report that only gaseous fuels are used in the equipment during the period covered by the report.

Liquid Fuel-Fired Burning Equipment:

Monitoring – The visible emissions may be observed by either Method-9 or the Smoke/No Smoke plans as detailed in Condition 2. Corrective actions such as maintenance procedures and either more frequent or less frequent testing may be required depending on the results of the observations.

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

Reporting – The Permittee is required to report: 1) emissions in excess of the federal and the state visible emissions standard and 2) deviations from permit conditions. The Permittee is required to include copies of the results of all visible emission observations with the stationary source operating report.

Dual Fuel-Fired Units:

For EU IDs 32 and 33, as long as they operate only on gas, monitoring consists of an annual certification that only gaseous fuels were used in the equipment. When any of these emission units operates on a liquid fuel for more than 400 hours in a calendar year, monitoring as detailed in Condition 9 is required for that emission unit in accordance with Department Policy and Procedure No. AWQ 04.02.103, Topic # 2, 10/8/04. When any of these units operates on a liquid fuel for less than 400 hours in a calendar year, monitoring for that unit consists of an annual certification of compliance with the opacity standard. The 400-hour trigger for additional monitoring applies to each individual unit and not as a combined total for all units.

Insignificant Emission Units:

EU IDs 34, 35, and 38 – 40 do not qualify as insignificant units per 18 AAC 50.326(d)(1) because they are subject to operational limits established under a Title I permit and federal NESHAP Subpart ZZZZ, but they are backup/emergency units that have actual emissions below the significant emissions thresholds in 18 AAC 50.326(e) based on the 200-hour per unit operational limit for EU IDs 34 and 35 required in Condition 20 and the significant emissions operational hour thresholds specified for EU IDs 38 – 40 in Condition 1.4. As long as these units do not exceed the operational hour-limit and the significant emissions thresholds, no monitoring is required, in accordance with Department Policy and Procedure No. AWQ 04.02.103, Topic # 3, dated June 21, 2012. The Permittee must annually certify compliance under Condition 146 with the visible emission standard.

Flares

EU IDs 42 and 43 are flares used as control device and are subject to the operational limitation found in 40 C.F.R. 60.18 and the State visible emission standards. Condition 5.3 requires flares to meet the state visible emission standards by observing one daylight flare event within 12 months of the preceding flare event. Additionally, the operational compliance limitations for these flares are found in Condition 34 and requires monthly monitoring using Method 22 and reporting.

Conditions 6, 7 and 8, Particulate Matter (PM) Standard

Legal Basis: These conditions ensure compliance with the applicable requirement in 18 AAC 50.055(b). This requirement applies to operation of all industrial processes and fuel burning equipment in Alaska.

- EU IDs 1 through 12, 14 through 20, 22 through 43, 115, 116, 119, 121, and 129 are fuel-burning equipment or industrial processes.

These PM standards also apply because they are contained in the federally approved SIP effective September 13, 2007.

Factual Basis: Condition 6 prohibits emissions in excess of the state PM (also called grain loading) standard applicable to fuel-burning equipment and industrial processes. The Permittee shall not cause or allow fuel-burning equipment nor industrial processes to violate this standard.

MR&R requirements are listed in Conditions 7 through 9 of the permit.

The Permittee must establish by actual visual observations which can be supplemented by other means, such as a defined Operation and Maintenance Program that the emission unit is in continuous compliance with the State's emission standards for particulate matter.

Gas-Fired Fuel Burning Equipment:

For gas-fired emission units, EU IDs 1 – 12, 14 – 20, 22 – 31, 36, 37, 41, 115, 116, 119, 121, and 129, MR&R Conditions are Standard Permit Condition VIII adopted into regulation pursuant to AS 46.14.010(e). The Department determined that these standard conditions adequately meet the requirements of 40 C.F.R. 71.6(a)(3). No emission unit or stationary source operational or compliance factors indicate that unit-specific or stationary-source specific conditions would better meet these requirements. Therefore, the Department concluded that the standard conditions meet the requirements of 40 C.F.R. 71.6(a)(3).

Although periodic PM monitoring of gas-fired units is waived, the Department has the discretion to request a source test for PM emissions from any fuel burning equipment under 18 AAC 50.220(a) and 345(l).

Liquid Fuel-Fired Burning Equipment:

For liquid fuel units the MR&R Conditions are Standard Permit Condition IX adopted into regulation pursuant to AS 46.14.010(e). The Department determined that these standard conditions adequately meet the requirements of 40 C.F.R. 71.6(a)(3). No emission unit or stationary source operational or compliance factors indicate that unit-specific or stationary-source specific conditions would better meet these requirements. Therefore, the Department concluded that the standard conditions meet the requirements of 40 C.F.R. 71.6(a)(3).

Dual Fuel-Fired Units:

For EU IDs 32 and 33, as long as they operate only on gas, monitoring consists of an annual certification that only gaseous fuels were used in the equipment akin to the gas-fired Standard Permit Condition VIII. When any of these emission units operates on a liquid fuel for more than 400 hours in a calendar year, monitoring as detailed in Condition 9 is required for that emission unit in accordance with Department Policy and Procedure No. AWQ 04.02.103, Topic # 2, 10/8/04. When any of these units operates on a liquid fuel for less than 400 hours in a calendar year, monitoring for that unit consists of an annual certification of compliance with the opacity standard. The 400-hour trigger for additional monitoring applies to each individual unit and not as a combined total for all units.

Insignificant Emission Units:

EU IDs 34, 35, and 38 – 40 do not qualify as insignificant units per 18 AAC 50.326(d)(1) because they are subject to operational limits established under a Title I permit and federal NESHAP Subpart ZZZZ, but they are backup/emergency units that have actual emissions below the significant emissions thresholds in 18 AAC 50.326(e) based on the 200-hour per unit operational limit for EU IDs 34 and 35 required in Condition 20 and the significant emissions operational hour thresholds specified for EU IDs 38 – 40 in Condition 6.4. As long as these units do not exceed the operational hour-limit and the significant emissions thresholds, no monitoring is required in accordance with Department Policy and Procedure No. AWQ 04.02.103, Topic # 3, dated June 21, 2012. The Permittee must annually certify compliance under Condition 146 with the particulate matter standard.

Flares:

PM monitoring of gas-fired flares for particulate matter is waived, i.e., no source testing will be required, because of the difficulty and questionable results these tests produce when applied to flares. The Department has recognized this fact by incorporating the waiver in the State Air Quality Control Plan as adopted in November 1984. This plan was approved as part of the September 13, 2007 SIP approval but not incorporated by reference. The Permittee must annually certify compliance under Condition 146 with the particulate matter standard.

Condition 10, Sulfur Compound Emissions

Legal Basis: This condition requires the Permittee to comply with the applicable sulfur compound emission standard for all fuel-burning equipment, industrial processes, and emission units at a petroleum refinery in the State of Alaska as provided in 18 AAC 50.055(c) and (d).

- EU IDs 1 through 12, 14 through 20, 22 through 43, 101, 115, 116, 119, and 129 are fuel-burning equipment and industrial processes.

The sulfur compound standards under 18 AAC 50.055(c) also apply because they are contained in the federally approved SIP effective September 13, 2007.

Factual Basis: Condition 10 requires the Permittee to comply with the State sulfur compound emission standards applicable to fuel-burning equipment, industrial processes, and emission units at a petroleum refinery. The Permittee may not cause or allow the affected equipment to violate these standards. Compliance with the sulfur dioxide emission standard in Condition 10 is assured by meeting the sulfur BACT limits of Conditions 12 through 14. These limits were established during the latest PSD permitting. Fuel sulfur less than or equal to 0.35% by weight for diesel, 0.01% by weight for LPG, 0.01% H_2S by volume for NG, and 162 ppmv or 230 mg/dscm (as required in NSPS Subpart J) H_2S or less for RG (aka fuel gas) demonstrate compliance with Condition 10. The corresponding MR&R for these BACT limits are referenced to satisfy the MR&R requirements of Condition 10.

The State sulfur compound emission standard of 250 ppm applicable to Sulfur Recovery Unit, EU ID 101, in Condition 10.5 is the same as the NSPS Subpart J standard in Condition 35.2. Therefore the NSPS Subpart J MR&R requirements provided in Conditions 35.3 and 35.4 satisfy the MR&R requirements for the State standard in Condition 10.5.

Sulfur dioxide comes from oxidizing the sulfur in the fuel (e.g. coal, natural gas, fuel oils).

Liquid Fuels:

Fuel containing no more than 0.75 percent sulfur by weight will always comply with the emission standard (i.e., No. 2 diesel fuel is 0.5 percent by weight or less by grade specification) at or greater than stoichiometric conditions. The Department used stationary source-specific monitoring scheme for the sulfur compound emission standards compliance based on the more stringent BACT limit of 0.35 percent sulfur content by weight for diesel fuel in Condition 12.

Gaseous Fuels:

Fuel gas sulfur is measured as hydrogen sulfide (H_2S) concentration in ppm by volume (ppmv). Calculations[14] show that fuel gas containing no more than 4000 ppm H_2S will comply with this emission standard at stoichiometric or excess air combustion conditions. This is true for all fuel gases. Equations to calculate the exhaust gas SO_2 concentrations resulting from the combustion of fuel gas were not included in this permit. Fuel gas with an H_2S concentration of even 10 percent of 4000 ppm is not available at most Alaska locations and is not projected to be available during the life of this permit.

The Permittee is currently limited to 0.01% by weight for LPG, 0.01% H_2S by volume for NG, and 162 ppmv or 230 mg/dscm (as required in NSPS Subpart J) H_2S or less for RG as listed in Conditions 12 through 14. The Department used these SO_2 BACT limits to assure compliance with the State standard of 500 ppm for sulfur compound emissions. For EU ID 32 and 33, Condition 10.4 allows compliance based on the proportions of fuel gas used. When burning a combination of gaseous fuel, the composition percentage of each fuel and the sulfur limit for those gas components will be used to determine if the sulfur standards are being met. Thus, the resultants sulfur concentration may fall between the two respective standards.

[14] See ADEC Air Permits Web Site at http://www.dec.state.ak.us/air/ap/docs/sulfgas.pdf, under "Stoichiometric Mass Balance Calculations of Exhaust Gas SO_2 Concentration."

The gaseous fuel sulfur content monitoring requirements under NSPS Subparts J and GG are referenced to satisfy the corresponding MR&R requirements of these BACT limits and State sulfur compound emission standards in Condition 10. The State sulfur compound emission standard of 250 ppm applicable to Sulfur Recovery Unit, EU ID 101, in Condition 10.5 is the same as the NSPS Subpart J standard in Condition 35.2. Therefore, the NSPS Subpart J MR&R requirements provided in Conditions 35.3 and 35.4 satisfy the MR&R requirements for the State standard in Condition 10.5.

Condition 11, Ice Fog Conditions

Legal Basis: The Permittee is required by State regulation to obtain a permit and to reduce water emissions in areas of potential ice fog conditions. This applies to all fuel-burning equipment of incinerators.

Factual Basis: Emission units IDs 32 and 33 use water injection to reduce NO_x emissions. The Department gives an exemption from the NO_x limit imposed by Subpart GG when ice fog conditions may cause a road hazard in the vicinity of the stationary source.

Conditions 12 through 23, Title I Permit Requirements

Legal Basis: The Permittee is required to comply with all effective stationary source-specific requirements that were carried forward from previous EPA PSD permits, SIP approved permits to operate issued before January 18, 1997, SIP approved construction permit(s), SIP approved minor permits, operating permits issued between January 18, 1997 and September 30, 2004, or owner requested limits established under 18 AAC 50.225. These requirements include Best Available Control Technology limits, limits to ensure compliance with the attainment or maintenance of ambient air quality standards or maximum allowable ambient concentrations, and owner requested limits. State pre-construction requirements apply because they were originally developed through case-by-case action under a federally approved SIP or approved Operating Permit program. EPA approved the latest SIP effective September 13, 2007.

Factual Basis: Conditions 12 through 16 are BACT limits that were established in Construction Permit 9923-AC010 during the PSD permitting period and were revised accordingly with the subsequent minor permit issued, Permit No. AQ0035MSS02. To ensure compliance with the State sulfur dioxide emission standard in Condition 10, the Sulfur BACT limits in Conditions 12 through 14 were established.

Condition 15 requires compliance with the NO_X BACT limits that apply to EU IDs 6 – 9, 11, 20, and 27 – 29. These conditions contained requirements to monitor operating hours for fuel-fired equipment so that emission levels may be calculated, to monitor the H_2S concentration in the fuel gas, the sulfur content in the liquid fuel, NG and LPG, to operate CMS to monitor SO_2 emissions and oxygen content of the exhaust gas for certain sources, and to operate low NO_X burners to demonstrate compliance with the limits in Conditions 12 through 16, Table B, Table C, and Table D. In Condition 15 the Department added a source test requirement as gap-filling since the BACT emission factors listed in Table B have not been comprehensively re-verified since construction. This is considered monitoring representative of the stationary source’s compliance from the relevant time period of the permit.

The BTX BACT emissions limits and corresponding MR&R in Condition 16 are conditions from Construction Permit No. 9923-AC010 that incorporated the PSD permit conditions of Permit No. 9023-AA010 dated February 19, 1991 that were specifically designated for the air strippers, EU IDs 47 and 48. References to EU ID 47 have been removed in this renewal permit per Tesoro's 7/9/2010 response letter to ADEC stating that EU ID 47 is no longer in service, and was dismantled in 2009 and subsequently removed from the SI building. Tesoro has no plans to operate EU ID 47 in the future. Condition 16 requires the Permittee to comply with the specified operational and emissions limits. The Permittee may not cause or allow EU ID 48 to exceed these limits. The Permittee is required to monitor the temperature and outlet BTX concentration. Condition 15 was gap filled by adding a requirement that the Permittee also measure airflow through the thermal oxidation unit. The requirement is for airflow not to exceed the 6000 SCF/min. Tesoro proposed to measure air flow in the Air Quality Control Construction Permit (9923-AC0101) but the requirement was not memorialized in a permit condition.

Condition 17 is an owner requested limit (ORL) and includes MR&R requirements carried forward from the Minor Permit No. AQ0035MSS01 issued on April 23, 2007. The minor permit allowed the use of diesel fuel in the cogeneration turbines, EU IDs 32 and 33, year-round but also imposed an owner-requested limit on the sulfur content (0.0225 weight percent sulfur (wt %S)) of diesel fuel burned. The sulfur limit ORL is necessary because the removal of the 438 hours per year limit on diesel would result in a PSD-significant modification with the existing BACT limit of fuel sulfur content of 0.35 wt %S. The Permittee is required to test the sulfur content of fuel deliveries and to compute the fuel sulfur when mixing of fuels occurs. Computations are not required if the delivered fuel is 0.0225 percent sulfur or less.

Conditions 18 through 20 were requested to avoid classification as PSD major modification and to prevent air pollution as required under 18 AAC 50.110 by reducing the NO_X, VOC and HAPs emissions from certain emission units. Monitoring, recordkeeping and reporting requirements are included in these conditions. Monitoring for Condition 19 is based on a site-specific sampling plan submitted to the Department in place of using the standard Method 18 in 40 C.F.R. 60 Appendix A. The operational hour limit for EU IDs 38 and 39 set out in Table D under Condition 20 was requested to address a modeled violation of the 24-hour ambient air quality standard for PM-10 by prohibiting concurrent operations of EU IDs 38 and 39. Condition 18 requires the Permittee not to exceed 0.06 lb/MMBtu of NO_X individually from EU ID 2 and 10. Continuous monitoring of exhaust concentration of oxygen is required along with maintenance of low NO_X burners. The oxygen measurement is a good indicator of NO_X production installing of these monitors was agreed to by the Permittee in a letter dated January 19, 1982. Condition 19 limits the HAP emissions from EU IDs 44 and 45. The HAP emissions are controlled by a carbon adsorption system that the Permittee is required to vent emissions from the soil vapor extraction units through at all times. The Permittee is required to demonstrate to the Department that calculations and measurements of airflow assure correct estimations of HAP emissions are submitted in reports. In Condition 18, the Department added as gap-filling a source test requirement to re-verify the emission factors used for NO_X emission limit calculations in Table C as monitoring representative of the stationary source's compliance from the relevant time period of the permit.

Condition 20 requires operational limits on EU IDs 6 and 7, 8 through 11, and 34 through 41. EU ID 6 through 11 are heaters and boilers and EU ID 34 through 41 are reciprocating engines. To assure compliance, oxygen concentration is measured on a continuous basis on the heaters and boilers. Hours of operation are limited for the engines and the Permittee is required to monitor the rolling hours. The hour limit on these engines exceed the allowable hours for classification under NESHAP Subpart ZZZZ as emergency engines. The Subpart ZZZZ allowable hours are not limit for these engines. However, applicable requirements may change if these engines are operated over 100 hours. At no time should the Permittee exceed the operational limits of Condition 20.

The requirements of Condition 21 have been carried forward from Construction Permit No. 035CP04. The Permittee performed air dispersion modeling to demonstrate that the increase in emissions from the Refinery due to the project will not cause or contribute to a violation of standards and maximum allowable increases for SO_2, NO_2, PM-10, CO and lead. The construction permit contains permit requirements based on air dispersion modeling. Previous analyses of Tesoro Kenai Refinery's impacts did not address emitting activities associated with tank maintenance. Therefore, air dispersion modeling completed in support of Tesoro's application for Construction Permit No. 035CP04 also addresses emitting activities associated with routine tank maintenance including tank cleaning, drying, and coating. The Department included these Title I permit stationary source-specific requirements in the initial Title V Operating Permit No. AQ0035TVP01 Revision 2. However, the Permittee stated in its renewal application that the tank maintenance emissions units, EU IDs 111 through 114 were never installed nor are there any plans to install them in the future. Consequently, EU IDs 111 through 114 and their associated MR&R requirements have been removed from this renewal permit.

Condition 22 is the requirement from Permit No. 035CP04 to increase the stack height of EU ID 34 to no less than seven meters. This condition was carried over into the renewal permit because it is still an applicable requirement. The Department recognizes that this requirement was completed on March 3, 2005 but requires Tesoro to maintain that stack height.

Condition 23 is stationary source-specific requirement carried over from the previous Operating Permit No. 9323-AA008. The condition requires the Permittee to comply with the quality assurance plan developed to address continuous monitoring process requirements within the permit; i.e., Conditions 13, 15, 16, 19, 35.3, 38.1, and 106.2.

Condition 24, Insignificant Emission Units

Legal Basis: The Permittee is required to meet state emission standards set out in 18 AAC 50.055 for all industrial processes fuel-burning equipment, and incinerators regardless of size.

Factual Basis: The condition re-iterates the emission standards and requires compliance for insignificant emission units. The Permittee may not cause or allow their equipment to violate these standards. Insignificant emission units are not added to the permit unless specific monitoring, recordkeeping and reporting are necessary to ensure compliance. Significant emission units that have recently been demonstrated as being insignificant have been carried forward in Table A for clarity and are called out in this condition (EU IDs 22, 23, 24, and 26).

The Department finds that the insignificant units at this stationary source do not require specific monitoring, recordkeeping and reporting to ensure compliance under these conditions, except for the operational limits and NESHAP Subpart ZZZZ requirements for EU IDs 34, 35, and 38 – 40. EU IDs 34, 35, and 38 – 40 do not qualify as insignificant units per 18 AAC 50.326(d)(1) because they are subject to operational limits established under a Title I permit and federal NESHAP Subpart ZZZZ, but they are backup/emergency units that have actual emissions below the significant emissions thresholds in 18 AAC 50.326(e) based on the 200-hour per unit operational limit for EU IDs 34 and 35 required in Condition 20 and the significant emissions operational hour thresholds specified for EU IDs 38 – 40 in Conditions 1.4 and 6.4.. Therefore, the Department referenced the general requirements for insignificant emission units under Condition 24.4 to satisfy the VE and PM MR&R requirements (as specified in Conditions 1.3, 1.4, 6.3, and 6.4) while these potentially insignificant units have emissions below the significant emissions thresholds in 18 AAC 50.326(e). Condition 24.4 requires certification that the units did not exceed State emission standards during the previous year and did not emit any prohibited air pollution.

Conditions 25 through 34, NSPS Subpart A Requirements

Legal Basis: The Permittee must comply with those New Source Performance Standard (NSPS) provisions incorporated by reference the NSPS effective July 1, 2009, for specific industrial activities, as listed in 18 AAC 50.040[15].

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 2 through 11, 17 through 20, 25, 27 through 29, 32, 33, 42, 59 through 60, 77, 79 through 82, 92, 93, 99, 101 through 110, 115 through 118 and 120 are subject to NSPS Subparts Dc, J, K, Ka, GG, UU, GGG, and QQQ and are therefore subject to Subpart A. Per §63.640(n)(5), EU ID 58, and EU ID 87-89 are exempt from Subpart K. Per §60.486(k), EU ID 99, 102-104, and 117 subject to GGG/VV are not subject to 60.7(b) and (d).

Condition 25.1 through 25.3 - The Permittee has already complied with the notification requirements in 40 C.F.R. 60.7 (a)(1) - (4) for EU IDs 2 through 11, 17 through 20, 25, 27 through 29, 32, 33, 42, 59 through 60, 77, 79 through 82, 92, 93, 99, 101 through 110, and 115 through 118. However, the Permittee is still subject to these requirements in the event of a new NSPS affected facility[16] or in the event of a modification or reconstruction of an existing facility[17] into an affected facility.

Condition 25.4 through 25.6 - The requirements to notify the EPA and the Department of the date of a continuous monitoring system performance demonstration, no less than 30 days before demonstration commences (40 C.F.R. 60.7(a)(5) – (7)) are applicable to the emission units subject to Subparts J and GG, EU IDs 2 through 11, 17 through 20, 25, 27 through 29, 32, 33, 42, 101, 115, and 116.

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

[16] *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, effective 7/1/07.

[17] *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, effective 7/1/07.

Condition 25.7 - 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 26 - Start-up, shutdown, or malfunction record maintenance requirements in 40 C.F.R. 60.7(b) are applicable to all NSPS affected facilities subject to Subpart A.

Conditions 27 and 28 - NSPS excess emission reporting requirements and summary report form in 40 C.F.R. 60.7(c) & (d) are applicable to EU IDs 2 through 11, 17 through 20, 22 through 29, 32, 33, 42, 101, 115, and 116. 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.

Recordkeeping requirements in 40 C.F.R. 60.7(f) are applicable to all NSPS affected facilities. (Satisfied by Condition 140)

Condition 29 - The Permittee has already complied with the initial performance test requirements in 40 C.F.R. 60.8 for the identified NSPS affected emission units. 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 30 - Good air pollution control practices in 40 C.F.R. 60.11 are applicable to all NSPS affected facilities subject to Subpart A (EU IDs 2 through 11, 17 through 20, 25, 27 through 29, 32, 33, 42, 59 through 60, 77, 79 through 82, 92, 93, 99, 101 through 110, and 115 through 118, and 120).

Condition 31 - states that any credible evidence may be used to demonstrate compliance or establishing violations of relevant NSPS standards for EU IDs 2 through 11, 17 through 20, 25, 27 through 29, 32, 33, 42, 59 through 60, 77, 79 through 82, 92, 93, 99, 101 through 110, and 115 through 118, and 120.

Condition 32 - Concealment of emissions prohibitions in 40 C.F. R. 60.12 are applicable to EU IDs 2 through 11, 17 through 20, 25, 27 through 29, 32, 33, 42, 59 through 60, 77, 79 through 82, 92, 93, 99, 101 through 110, and 115 through 118, and 120.

Condition 33 - Monitoring requirements in 40 C. F. R. 60.13 are applicable to EU IDs 2 through 11, 17 through 20, 25, 27 through 29, 32, 33, 42, 101, 115, and 116 because a CMS is used to determine compliance with Subparts J and GG emission standards.

Condition 34 - The flare, EU ID 42, is subject to 40 C.F. R. 60.18 because it is a control device required in 40 C.F. R. 60.482-10(d) Subpart VV so as to comply with the provisions of NSPS Subpart GGG, incorporated by reference. Condition 34 provides the monitoring and design requirements applicable to a flare used as control device. The Department gap filled to include requirements to monitor the status of the flare, install a flow meter and employ a method to measure the caloric content or the VOCs content in the combustion gases to assure that the flare is operating properly as a control device at all times that it is in use. The Permittee is required to report compliance with the presence of a flame, combustion gases and exit velocities in meeting the requirements of 40 C.F.R. 60.18. The reasoning and condition language was based on studies of petroleum refinery flares by the Technical Analysis Division of the Texas Commission of Environmental Quality. Condition language was taken from the boilerplate condition developed by TCEQ in October of 2006 to gap fill the requirements of 40 C.F.R. 60.18. The Department added a schedule and interim specific heat monitoring in response to an informal review decision issued Novemebr 15, 2012.

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

Condition 35, NSPS Subpart J Requirements

Legal Basis: NSPS Subpart J applies to fluid catalytic cracking units catalyst regenerators, fuel gas combustion devices, and all Claus sulfur recovery plants except Claus plans of 20 long tons per day or less, at a petroleum refinery. Tesoro Kenai Refinery is a petroleum refinery and EU IDs 2 through 11, 17 through 20, 27 through 29, 42, 115, and 116 are fuel gas combustion devices while EU ID 101 is a Claus sulfur recovery unit with a capacity of more than 20 long tons per day. These emission units were constructed or modified within the applicability dates (after June 11, 1973 and before May 14, 2007 for combustion devices; after October 4, 1976 and before May 14, 2007 for Claus sulfur recovery unit) covered by Subpart J.

Factual Basis: This condition incorporates the Subpart J sulfur oxide standard. The Permittee may not cause or allow the affected emission units to violate this standard. MR&R requirements are as provided in Conditions 35.3 through 35.4.

Condition 36, NSPS Subpart Ja Requirements

Legal Basis: NSPS Subpart Ja applies to the following affected facilities in petroleum refineries: fluid catalytic cracking units (FCCU), fluid coking units (FCU), delayed coking units, fuel gas combustion devices, including flares and process heaters, and sulfur recovery plants. Except for flares, the provisions of this subpart apply only to affected facilities which commence construction, modification, or reconstruction after May 14, 2007. For flares, the provisions of this subpart apply only to flares which commence construction, modification, or reconstruction, after June 24, 2008. EU ID 42 *[J-801]* became subject to NSPS Subpart Ja upon modification in the *2010 Benzene Reduction Project* because Tesoro performed a modification under 40 C.F.R. 60.100a(c)(1) to physically connect to the flare new piping from a refinery process unit or fuel gas system. Tesoro certified in their application that it has no additional affected facilities at the refinery subject to Subpart Ja.

Factual Basis: This condition incorporates the Subpart Ja Flare and Fuel Gas Combustion Device Gas H_2S Concentration Limits, Root-Cause Analysis and Corrective Actions Analysis, Management Plans and Work Practices as delineated in the Subpart. The Permittee may not cause or allow the affected emission unit to violate the management plan and work practices. MR&R requirements are as provided in Conditions 36.10 through 36.12.

Condition 37, NSPS Subpart Dc Requirements

Legal Basis: The NSPS applies to steam generating units for which construction, modification, or reconstruction commenced after June 9, 1989 and have maximum design heat input capacities of 29 MW (100 MMBtu/hr) or less, but greater than or equal to 2.9 MW (10 MMBtu/hr). EU ID 29 was originally constructed in 1994 and later modified in 2006, and have maximum design heat input capacities of 91 MMBtu/hr and therefore subject to Subpart Dc.

EU ID 29 burns only gaseous fuel. Therefore, the only applicable requirements of this subpart are notification and fuel consumption monitoring.

Factual Basis: During the initial Title V permitting process, Tesoro asserted that Subpart Dc was not applicable to EU ID 29 since the unit met the “process heater” exemption under the rule at the time. However, based on EPA’s recent review on all available background information, it appears that the “process heater” exemption applies only to units that are heating material directly before it is sent to a reactor where the material initiates or promotes a chemical reaction in which the material participates as a reactant or catalyst. The main purpose of EU ID 29 is to heat the feed to the Vacuum Unit (EU ID 104) but it also heats the boiler feedwater prior to the water being converted as a steam at a downstream exchanger. Therefore, the Permittee requested in this renewal permitting process that NSPS Subpart Dc be reflected as applicable to EU ID 29. Because EU ID 29 burns only gaseous fuels, the only applicable requirement for EU ID 29 under this subpart is the maintenance of fuel consumption records as provided in Condition 37.

Conditions 38 - 39, NSPS Subpart GG Requirements

Legal Basis: These conditions prohibit the Permittee from exceeding emission standards set out in Subpart GG. NSPS Subpart GG applies to stationary gas turbines with a heat input at peak load (maximum load at 60 percent relative humidity, 59 ºF, and 14.7 psi) equal to or greater than 10.7 gigajoules per hour (10 MMBtu/hr), based on the lower heating value of the fuel fired and constructed, modified, or reconstructed after October 3, 1977.

Factual Basis: These conditions incorporate NSPS Subpart GG NO_X emission and sulfur compound limits. The Permittee may not allow equipment to violate these standards. Per Condition 39.1.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. Per 40 C.F.R. 60.334(i)(3)(i), a custom sulfur monitoring schedule under 60.334(i)(3)(ii)(A) is acceptable without prior Administrative approval.

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

$$STD_{NOX} = 0.015\left(\frac{14.4}{Y}\right) + F$$

Where:

STD_{NOX} = allowable NOX emissions (percent by volume at 15 percent oxygen and on a dry basis)

Y = manufacturer's maximum rated heat input (kJ/W-hr), or actual measured heat rate based on lower heating value of fuel as measured at actual peak load for the affected stationary source. The value of Y shall not exceed 14.4 kJ/W-hr; and

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

Based on the manufacturer's heat rating at manufacturer's rated peak load, and assuming fuel bound nitrogen of zero, the NO_X standard is 160 ppmv for EU IDs 32 and 33.

SO_2 Standard: The Permittee is required to comply with one of the following sulfur requirements for EU IDs 32 and 33 (turbines):

(1) do not cause or allow SO_2 emission in excess of 0.015 percent by volume, at 15 percent O_2 and on a dry basis (150 ppmv), or

(2) do not cause or allow the sulfur content for the fuel burned in EU IDs 32 and 33 to exceed 0.8 percent by weight.

The Permittee chose to comply with the SO_2 standard by not exceeding 0.8 percent by weight sulfur content of the fuel burned in the emission units.

Exemptions: Gas turbines exempted from NSPS Subpart GG emission standards are as provided in 40 C.F.R. 60.332(e) – (l).

Condition 38, NO_X Monitoring, Recordkeeping, and Reporting

Legal Basis: Subpart GG NO_X MR&R requirements described in Condition 38.1 applies to stationary gas turbines using water injection to control NO_X emissions

Factual Basis: The affected emission units, EU IDs 32 and 33, use water injection to control NO_X emissions. As required in 40 C.F.R. 60.334(a), the units are equipped with continuous monitoring system (CMS) to monitor and record the fuel consumption and the ratio of water-to-fuel being fired in the sources. MR&R requirements are in accordance with the applicable requirements of 40 C.F.R. 60.332, 60.334 and relevant conditions carried forward from previous Operating Permit No. 9323-AA008. To assure compliance with the water-to-fuel ratio, the Permittee is required to test source test one of the gas turbines at least once during the life of the permit.

Condition 39, SO_2 Monitoring, Recordkeeping, and Reporting

Legal Basis: This condition requires the Permittee to comply with NSPS Subpart GG SO_2 or fuel quality monitoring, recordkeeping, and reporting.

Factual Basis: Monitoring, recordkeeping, and reporting requirements for this condition are described in NSPS Subpart GG and have been referenced here. No additional monitoring outside of the Subpart GG requirements is necessary to ensure compliance with the NSPS SO_2 standard.

Monitoring: Condition 39.1 incorporates NSPS Subpart GG fuel sulfur monitoring requirements. Per 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. The EPA issued an Alternative Monitoring Plan dated 2/28/97 to the stationary source which allows the Permittee to monitor the sulfur content, measured as H_2S, of the NG, LPG, and butane monthly; or if the sulfur levels stay below 80 ppm, then monitor at least semiannually.

Recordkeeping: The Permittee is required to maintain records of all sulfur monitoring data required by NSPS Subpart GG for five years as set out in 40 C.F.R 71.6(a)(3)(ii)(B). This requirement is stated in Condition 140.

Reporting: NSPS Subpart GG SO_2 standard reporting requirements are incorporated in the permit in Condition 39.4. For the purpose of the EEMSP reports and summary report 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, or emissions exceed 150 ppmvd as excess emissions. As stated in Conditions 27, 28, and 144, reports are to be submitted to the Department and EPA, and summarized in the operating report required under Condition 145.

Conditions 40 through 42, Stationary Reciprocating Internal Combustion Engines (RICE) Subject to NSPS 40 C.F.R. 60 Subpart JJJJ

Legal Basis: NSPS Subpart JJJJ applies to owners and operators of stationary SI ICE that commence construction after June 12, 2006, where the stationary SI ICE are manufactured on or after July 1, 2008 for engines with a maximum engine power less than 500 hp; or on or after January 1, 2009, for emergency engines.

Factual Basis: The affected emission units, EU ID 121 is an emergency reciprocating internal combustion engine with a 256 bhp rating. For the calculation of PTE the Permittee cited the September 6, 1995 EPA Memo to use 500 hours. The Permittee provided the engines certification by the EPA.

Conditions 43 through 45, NSPS Subpart KKKK Requirements

Legal Basis: NSPS Subpart KKKK applies to stationary combustion turbines that commenced construction, modification or reconstruction after February 18, 2005. EU IDs 32A and 33A *[GT-1400A, GT-1410A],* (when installed) are modified or reconstructed turbines subject that meet the applicability criteria when the CoGeneration Turbine Project is complete and the units are commissioned.

Factual Basis: These conditions incorporate NSPS Subpart KKKK NO_X emission and sulfur compound limits. The Permittee may not allow equipment to violate these standards. The Permittee must perform initial and subsequent performance tests for NO_X according to the limits set out in Conditions 44.1 through 44.3 except as modified by Condition 43.1. Per Condition 45 and pursuant to 40 C.F.R. 60.4365(a), the owner or operator may elect not to monitor the total sulfur content of the liquid fuels and gaseous fuels combusted in the turbine if the liquid fuel is demonstrated to be 0.05 weight percent or less and gaseous fuel is demonstrated to meet 20 grains of sulfur or less per 100 standard cubic feet.

Condition 46, NSPS Subpart K Requirements

Legal Basis: NSPS Subpart K applies to storage vessels for petroleum liquids with storage capacities greater than 40,000 gallons that were built or modified after March 8, 1974 and prior to May 19, 1978. EU IDs 58, 87, 88, and 89 were constructed during this time frame. These tanks have storage capacities greater than 40,000 gallons and store petroleum liquids.

Factual Basis: EU IDs 58, 87, 88, and 89 are tanks subject to Subpart K that are now also subject to NESHAP Subpart CC (Condition 70). Per 40 C.F.R. 63.640(n)(5), Group 1 storage vessel that is also subject to the provisions of 40 C.F.R. 60, Subparts K or Ka is required to only comply with the provisions of 40 C.F.R. 63 Subpart CC. Therefore, a reference was directed to NESHAP Subpart CC requirements under Condition 70 as compliance with NSPS Subpart K for EU IDs 58, 87, 88, and 89.

Condition 47, NSPS Subpart Ka Requirements

Legal Basis: NSPS Subpart Ka applies to storage vessels for petroleum liquids with storage capacity greater than 40,000 gallons that were built or modified after May 18, 1978 and prior to July 23, 1984. EU IDs 59, 60, and 107 were constructed during this time frame. These affected facilities have storage capacities greater than 40,000 gallons each and store petroleum liquids (Jet A fuel in EU IDs 59 & 60 and slop oil in EU ID 107).

Factual Basis: If the true vapor pressure of the liquid stored within a tank is maintained below 1.0 psia, then there are no operational monitoring requirements. If the true vapor pressure is maintained below 1.5 psia, then there are no applicable equipment standards. If these conditions are met, then there are no applicable requirements other than those found in 40 C.F.R. 60, Subpart A. Otherwise, MR&R for Subpart Ka tanks are as provided in this condition. The NSPS Subpart K tanks are identified as TK-13, TK-14, TK-04C. TK-13 and TK-14 are internal floating roof crude storage tanks while TK-04C is an internal floating roof slop oil tank. When last inspected the temperature of the tanks was near ambient conditions. There were no control devices on the tank (vented to ambient air).

Conditions 48 through 53, NSPS Subpart Kb Requirements

Legal Basis: These requirements apply to storage vessels with design capacities meeting the requirements as specified in 40 C.F.R. 60.112b(a)(1) for a Volatile Organic Liquid (VOL) storage vessel storing VOL with storage capacity of 151 cu. m., maximum true vapor pressure of greater than or equal to 5.2 kPa, and equipped with internal floating roof, and for which construction, reconstruction, or modification commenced after 7/23/84. The Permittee may not cause or allow the equipment to violate these standards.

- EU ID 120 falls within this category, and is therefore subject to NSPS Subpart Kb.

Factual Basis: These conditions incorporate NSPS Subpart Kb requirements to install and maintain an internal floating roof. Monitoring, recordkeeping, and reporting requirements are as stated.

Condition 54, NSPS Subpart UU Requirements

Legal Basis: This condition applies to asphalt processing and asphalt roofing manufacture. The affected sources in this stationary source are asphalt storage tanks, EU IDs 77, 79 through 82, 92 and 93.

Factual Basis: The Permittee is required to comply with the opacity standard set out in 40 C.F.R. 60.472(c). Compliance with this standard is demonstrated by performing an annual Method 9 observation or as provided by an EPA approved alternate method or waiver.

Conditions 55 through 59, NSPS Subpart GGG Requirements

Legal Basis: These conditions apply to the group of all equipment within a process unit, as defined in 40 C.F.R. 60.591[18] Subpart GGG, that commenced construction or modification after January 4, 1983 and on or before November 7, 2006. The affected emission units in this stationary source are EU IDs 99, 102, 103, 104 and 107 including each valve, pump, pressure relief device, sampling connection system, open-ended valve or line, and flange or other connector in VOC service.

Factual Basis: These conditions require the Permittee to comply with the applicable requirements of Subpart GGG or GGGa (Standards of Performance for Equipment Leaks of VOC in Petroleum Refineries) and associated requirements in Subpart VV or VVa (Leak Detection and Repair Practices). The MR&R are as provided in Subparts GGG/GGGa and VV/VVa.

Condition 60, NSPS Subpart QQQ Requirements

Legal Basis: Condition 60 applies to EU IDs 105, 106, 108 through 110, and 118, except during periods of startup, shutdown, and malfunction, as those terms are defined in 40 C.F.R. 60.2. The requirements of Subpart QQQ do not apply to process wastewater, air strippers, or any source downstream of Oil-Water Separators Tank TK-96 (EU ID 108) or to storage vessels, including slop oil tanks and other auxiliary tanks that are subject to the standards in 40 C.F.R. 40 C.F.R. 60.112, 60.112a, and 60.112b and associated requirements, 40 C.F.R. part 60, subparts K, Ka, or Kb.

Factual Basis: This condition requires the Permittee to comply with the applicable requirements of Subpart QQQ - Standards of Performance for VOC emissions from Petroleum Refinery wastewater systems. The MR&R are as provided in Subpart QQQ and the EPA-approved Alternative Monitoring Provisions for Slop Oil Tanks TK-04A and TK-04B (EU IDs 105 and 106) and Wastewater Tank TK-96 (EU ID 108). Each oil-water separator tank or other auxiliary equipment's current treatment design capacity is less than 250 gallons per minute.

[18] *Process unit* means the components assembled and connected by pipes or ducts to process raw materials and to produce intermediate or final products from petroleum, unfinished petroleum derivatives, or other intermediates. A process unit can operate independently if supplied with sufficient feed or raw materials and sufficient storage facilities for the product. For the purpose of Subpart GGG, process unit includes any feed, intermediate and final product storage vessels (except as specified in §60.482–1(g)), product transfer racks, and connected ducts and piping. A process unit includes all equipment as defined in this subpart.

Condition 61, NESHAP Subpart A General Provisions

Legal Basis: NESHAP Subpart A contains the general requirements applicable to all affected facilities (sources) subject to NESHAP. General provisions of 40 C.F.R. 61 and 63, Subpart A apply to owners or operators who are subject to a relevant subpart under Parts 61 and 63, except when otherwise specified in an applicable subpart or relevant standard. The Department has incorporated by reference the NESHAP effective July 1, 2009 for Part 61 and July 30, 2010 for Part 63, for specific industrial activities, as listed in 18 AAC 50.040. However, EPA has not delegated to the Department the authority to administer the NESHAP program.

Factual Basis: NESHAP Subpart A contains the general requirements applicable to all affected facilities (sources) subject to NESHAP. The intent of Subpart A is to eliminate the repetition of requirements applicable to all owners or operators affected by NESHAP.

Conditions 62 through 69, NESHAP Subpart FF Requirements

Legal Basis: These conditions apply to waste-streams from the stationary source for compliance with the NESHAP provisions for benzene waste operations. Specifically, the affected emission units are EU IDs 56 through 60, 75, 76, 78, 79, 83 through 89, 96 through 99, and 102 through 104, and 117.

Factual Basis: The conditions reiterate NESHAP requirements in Subpart FF. For as long as the total amount of benzene waste is less than 10 Megagrams per year, the stationary source is exempt from 40 C.F.R. 61.342(b) & (c). The only requirements that apply are recordkeeping and periodic sampling of waste streams for benzene content, to demonstrate that the total quantity continues to be less than 10 Megagrams per year. If the total amount of benzene exceeds 10 Mg/yr., then the Permittee will be subject to more requirements in Subpart FF and may require a permit re-opening to add the additional applicable requirements.

Condition 70, NESHAP Subpart CC Requirements

Legal Basis: This condition applies to the petroleum refining units in the Tesoro Kenai Refinery and to related emission points in the aggregated facilities (Kenai Pipeline and Nikiski Terminal) in accordance with 40 C.F.R. 63.640(a). The only related emission point at Kenai Pipeline that meets the criteria in 40 C.F.R. 63.640(a) is the marine vessel loading operations as specified in 40 C.F.R. 63.640(c)(6). Emission units (e.g., Group 1 storage vessels and petroleum refining process units) in the Tesoro Kenai Refinery that are part of the affected source include EU IDs 56, 58, 75, 76, 78, 83 – 89, 96 - 100, and 102. Group 2 storage vessels located at Tesoro Refinery are also part of the affected source but have not been listed in the permit because they have no requirements under Subpart CC.

Factual Basis: This condition requires the Permittee to comply with the applicable requirements of Subpart CC - Standards for HAPs emissions from Petroleum Refineries. The MR&R are as provided in Subpart CC which require the Permittee to comply with compliance methods contained Subparts CC with optional compliance methods contained in NSPS Subparts VV or NESHAPS Subpart G.

Conditions 71 through 72, NESHAPs Subpart GGGGG Requirements

Legal Basis: The requirements of this Site Remediation MACT exemption apply to sources where the total amount of Subpart GGGGG Table 1 HAPs removed from the site is less than 1 megagram per year.

Factual Basis: Conditions 71 through 72 incorporate the NESHAPs Subpart GGGGG recordkeeping requirements as they apply to this stationary source provided HAPs emissions from site remediation remain less than 1 megagram per year. No additional requirements are necessary to ensure compliance with these conditions.

Conditions 73 through 102, NESHAP Subpart UUU Requirements

Legal Basis: These conditions apply to the stationary source's catalytic reforming unit and sulfur recovery unit.

Factual Basis: These conditions require the Permittee to comply with the established NESHAP standards for HAPs emitted from petroleum refineries. For this stationary source, the affected emission units are the Powerformer and Sulfur Recovery Unit, EU IDs 97 and 101. The conditions also provide the requirements to demonstrate initial and continuous compliance with the applicable emission limitations and work practice standards set out in Tables 15 – 44 of Subpart UUU.

The United States Court of Appeals for the District of Columbia Circuit (D.C. Circuit Court) vacated two requirements in the NESHAP General Provisions [40 C.F.R. §63.6(f)(1) and §63.6(h)(1)] in its December 19, 2008 ruling in Sierra Club vs. EPA, 551 F.3d 1019 (D.C. Cir. 2008). These two key provisions exempted sources from complying with HAP emissions standards during startup, shutdown, and malfunction (SSM) events. As a result, the Department modified Conditions 84 through 86 to account for these changes in Subpart A obligations by adding gap-filling as set forth in 40 C.F.R. 71.6(a)(3).

Conditions 103 through 106, NESHAPs Subpart ZZZZ Requirements

Legal Basis: The Department has incorporated by reference the NESHAPs requirements effective July 16, 2007, for specific industrial activities, as listed in 18 AAC 50.040(c). NESHAP Subpart ZZZZ applies to owners and operators of stationary reciprocating internal combustion engines (RICE) located at major and area sources of HAP emissions.

Factual Basis: NESHAP Subpart ZZZZ applies to any existing, new, or reconstructed stationary RICE located at a major or area source of HAP emissions, excluding stationary RICE units being tested at a stationary RICE test cell/stand. Tesoro Kenai Refinery is a HAPs major stationary source that operates spark ignition (SI) 4 stroke rich burn (4 SRB) stationary RICE, EU IDs 36 and 37, each of which has a rating greater than 500 Bhp and commenced construction before December 19, 2002. EU IDs 34, 35, 38, 39, 40, and 41 are also subject to Subpart ZZZZ as emergency units. The emission units are existing units subject to Subpart ZZZZ based on their emergency or non-emergency status, construction, manufacture, or reconstruction date. Subpart ZZZZ emissions and operating limitations and corresponding MR&R requirements specific for existing SI 4SRB stationary RICE are provided in Conditions 103 through 106.

Conditions 107 through 110, NESHAPs Subpart DDDDD Requirements

Legal Basis: Tesoro submitted a minor permit revision to Permit No. AQ0035TVP02 Revision 7, requesting incorporation of NESHAP Subpart DDDDD applicable requirements into the permit. NESHAP Subpart DDDDD establishes national emission limitations and work practice standards for hazardous air pollutants (HAP) emitted from industrial, commercial, and institutional boilers and process heaters located at major sources of HAP.

Factual Basis: NESHAP Subpart DDDDD applies to owners or operators of an industrial, commercial, or institutional boiler or process heater that is located at, or is part of, a major source of HAP. Tesoro Kenai Refinery is deemed a major source of HAP and operates boilers and heaters subject to Subpart DDDDD. Tesoro identified all affected emissions units at the stationary source, as listed in Condition 107. Because these units meet the definition of "unit designed to burn gas 1" under §63.7575, per §63.7500(e), they are not subject to emission limits and operating limits but are subject to work practices standards, which include periodic tune ups and the general air pollution control practices required under this subpart. Conditions 107 through 110 provide the applicable work practices and associated notification, recordkeeping, and reporting requirements. Condition 110.3 was added to gap-fill reporting requirement for deviations on any of the permit conditions under NESHAP Subpart DDDDD.

Initial tune ups and one-time energy assessment required in 40 C.F.R. 63.7510(e) have been completed for all affected emission units. Initial Notification and NOCS required under 40 C.F.R. 63.7545(a), (b), and (e) have been submitted to EPA on January 24, 2012 and March 31, 2016, respectively. Therefore, these requirements are no longer included in the permit.

Condition 111 and Section 14, Compliance Assurance Monitoring (CAM)

Legal Basis: The Lower Tank Farm Soil Vapor Extraction Unit, EU ID 45 *[LTF SVE]*, uses a control device[19] to achieve compliance with the VOC and HAP limits in Condition 19, and has potential pre-control device emissions equal to or greater than the major source thresholds for VOC (100 TPY) and HAP (10 TPY for any one HAP or 25 TPY for any combination of HAPs). This condition applies because the stationary source has pollutant specific emitting units that satisfy all of the CAM applicability criteria in 40 C.F.R. 64.2(a)(1-3): (1) the emission units are subject to an applicable emission limitation or standard; (2) the units use a control device to comply with any such applicability emission limitation or standard; and (3) the units have potential pre-control device emissions of the applicable regulated air pollutant equal to or greater than the major source thresholds for the applicable regulated air pollutant.

[19] The control device used is an activated carbon adsorption system that controls HAPs and VOCs recovered by the soil remediation vapor extraction unit.

Factual Basis: The Permittee has an ORL in Condition 19 to restrict the potential VOC and HAP emissions to avoid classification as a HAPs major source. The Lower Tank Farm Soil Vapor Extraction Unit, EU ID 45 *[LTF SVE]*, uses a control device to achieve compliance with the VOC and HAP limits in Condition 19, and has potential pre-control device emissions equal to or greater than the major source thresholds for VOC (100 TPY) and HAP (10 TPY for any one HAP or 25 TPY for any combination of HAPs). The control device used is an activated carbon adsorption system that controls HAPs and VOCs recovered by the soil remediation vapor extraction unit. The Permittee has a prepared a Compliance Assurance Monitoring strategy shown in Section 14 to ensure fulfillment of the 40 C.F.R. 64 CAM rule. The Department incorporates Tesoro's plan in Section 14.

Condition 112, Risk Management Plan (RMP) Requirements, 40 C.F.R. 68

Legal Basis: The stationary source is subject to RMP requirements of 40 C.F.R. 68 because it meets the applicability criteria in 40 C.F.R. 68.10. It contains a regulated substance in a process that has more than a threshold quantity, as determined under 40 C.F.R. 68.115.

Factual Basis: This condition incorporates applicable 40 C.F.R. 68 requirements. The Permittee must comply with RMP provisions of 40 C.F.R. 40 C.F.R. 68.190 during the permit term. The latest version of the stationary source's RMP was submitted by Tesoro to the EPA on June 17, 2009. The next RMP update must be submitted no later than June 17, 2014, or earlier as may be required by 40 C.F.R. 68.190.

Conditions 113 through 115, Standard Terms and Conditions

Legal Basis: These are standard conditions required under 18 AAC 50.345(a) and (e)-(g) for all operating permits. This provision is incorporated in the federally approved Alaska operating permit program of November 30, 2001, as updated effective November 9, 2008.

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

Condition 116, Administration Fees

Legal Basis: This condition ensures compliance with the applicable requirement in 18 AAC 50.400-405 as derived from AS 46.14.130. This condition requires the Permittee, owner, or operator to pay administration fees as set out in regulation. Paying administration fees is required as part of obtaining and holding a permit with the Department or as a fee for a Department action.

Factual Basis: The owner or operator of a stationary source who is required to apply for a permit under AS 46.14.130 shall pay to the Department all assessed permit administration fees. The regulations in 18 AAC 50.400-405 specify the amount, payment period, and the frequency of fees applicable to a permit action.

Conditions 117 through 118, Emission Fees

Legal Basis: These conditions ensure compliance with the applicable requirement in 18 AAC 50.410-420. The regulations require all permits to include due dates for the payment of fees and any method the Permittee may use to re-compute assessable emissions.

Factual Basis: These emission fee conditions are Standard Permit Condition I under 18 AAC 50.346(b) adopted pursuant to AS 46.14.010(e). Except for the modification noted in the last paragraph of this "Factual Basis", the Department determined that these standard conditions adequately meet the requirements of AS 46.14.250. No emission unit or proportional stationary source operation or compliance factors indicate that unit-specific or proportional stationary-source specific condition(s) would better meet these requirements. Therefore, the Department concluded that the standard conditions meet the requirements of AS 46.14.250.

These standard 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 default assessable emissions are generally potential emissions of each air pollutant in excess of 10 tons per year authorized by the permit (AS 46.14.250(h)(1)(A)).

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

The Kenai Refinery along with the Kenai Pipeline (KPL) and the Nikiski Terminal are considered an aggregated source (see source description). Emission fees in this permit are computed as a proportion of the total emission fees for the aggregate source.

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

Condition 119, Good Air Pollution Control Practice

Legal Basis: This condition ensures compliance with the applicable requirement in 18 AAC 50.346(b)(5) and applies to all emission units, **except** those subject to federal emission standards, those subject to continuous emission or parametric monitoring, and insignificant emission units.

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 Standard Permit Condition VI pursuant to AS 46.14.010(e). The Department determined that this standard condition adequately meets the requirements of 40 C.F.R. 71.6(a)(3). No emission unit or stationary source operational or compliance factors indicate that unit-specific or stationary-source specific conditions would better meet these requirements. Therefore, the Department concluded that the standard condition meets the requirements of 40 C.F.R. 71.6(a)(3).

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 maintenance has been deferred.

Condition 120, Dilution

Legal Basis: This condition prohibits the Permittee from using dilution as an emission control strategy as set out in 18 AAC 50.045(a). This state regulation applies to the Permittee because the Permittee is subject to emission standards in 18 AAC 50.

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

Condition 121, Reasonable Precautions to Prevent Fugitive Dust

Legal Basis: This condition requires the Permittee to use reasonable precautions when handling, storing or transporting bulk materials or engaging in an industrial activity in accordance with the applicable requirement in 18 AAC 50.045(d). Bulk material handling requirements apply to the Permittee because the Permittee will engage in bulk material handling, transporting, or storing; or will engage in industrial activity at the stationary source.

This condition applies to stationary source operating permits that do not have an approved dust control plan, and contain one of the following: 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.

Factual Basis: The condition requires the Permittee to comply with 18 AAC 50.045(d), and take reasonable action to prevent particulate matter (PM) from being emitted into the ambient air.

The Department adopted this standard condition as Standard Permit Condition X under 18 AAC 50.346(c) pursuant to AS 46.14.010(e). The Department determined that this standard condition adequately meets the requirements of 40 C.F.R. 71.6(a)(3). No emission unit or stationary source operational or compliance factors indicate that unit-specific or stationary-source specific conditions would better meet these requirements. Therefore, the Department concluded that the standard condition meet the requirements of 40 C.F.R. 71.6(a)(3).

Condition 122, Stack Injection

Legal Basis: This condition ensures 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 the stationary source because the stationary source contains a stack or unit constructed or modified after November 1, 1982.

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

Condition 123, Air Pollution Prohibited

Legal Basis: This condition ensures compliance with the applicable requirement in 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. Air Pollution Prohibited requirements apply to the stationary source because the stationary source will have emissions.

Factual Basis: While the other permit conditions and emissions limitation 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.

ADEC adopted this standard condition into 18 AAC 50.346(a) pursuant to AS 46.14.010(e). The Department determined that this condition adequately meet the requirements of 40 C.F.R. 71.6(a)(3). No emission unit or stationary source operational or compliance factors indicate that unit-specific or stationary-source specific conditions would better meet these requirements. Therefore, the Department concluded that the standard condition meets the requirements of 40 C.F.R. 71.6(a)(3).

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

Condition 124, Technology-Based Emission Standard

Legal Basis: The Permittee is required to take reasonable steps to minimize emissions if certain activity causes an exceedance of any technology-based emission standard in this permit. This condition ensures compliance with the applicable requirement in 18 AAC 50.235. Technology Based Emission Standard requirements apply to the stationary source because the stationary source contains equipment subject to a technology-based emission standard, such as BACT, MACT, LAER, NSPS or other “technologically feasible” determinations.

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 144. Excess emission reporting under Condition 85 requires information on the steps taken to minimize emissions. Monitoring of compliance for this condition consists of the report required under Condition 144.

Condition 125, Asbestos NESHAP

Legal Basis: The condition requires the Permittee to comply with asbestos demolition or renovation requirements in 40 C.F.R. 61, Subpart M. This condition ensures compliance with the applicable requirement in 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.

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 126, NESHAPs Applicability Determinations

Legal Basis: This condition requires the Permittee to keep and make available to the Department copies of the major stationary source determination and applicability of specific federal regulations that may apply to its stationary sources.

Factual Basis: The Permittee has conducted an analysis of the stationary source and determined that it is a major HAPs stationary source based on emissions. This condition requires the Permittee to notify the Department and Administrator if the stationary source becomes an affected facility and to keep and make available to the Department copies of the major stationary source determination.

Condition 127, Protection of Stratospheric Ozone, 40 C.F.R. 82

Legal Basis: Condition 127.1 ensures compliance with the applicable requirement in 18 AAC 50.040(d) and applies 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 set forth in 40 C.F.R. 82, Subpart F that will apply if the Permittee uses certain refrigerants. The prohibitions of Conditions 127.2 and 127.3 apply to all stationary sources that use halon for extinguishing fires and inert gas to reduce explosion risk. These subconditions prohibit the Permittee from causing or allowing violations of these prohibitions. The Kenai Refinery uses halon and is therefore subject to the federal regulations contained in 40 C.F.R. 82.

Factual Basis: Because these regulations include adequate monitoring and reporting requirements and because the Permittee is not currently engaged in such activity, simply citing the regulatory requirements is sufficient to ensure compliance with this federal regulation. These conditions incorporate applicable 40 C.F.R. 82 requirements. The Permittee may not cause or allow violations of these prohibitions.

Conditions 128 through 129, Open Burning

Legal Basis: These conditions require the Permittee to comply with the regulatory requirements when conducting open burning at the stationary source. These conditions ensure compliance with the applicable requirement in 18 AAC 50.065. The open burning state regulation in 18 AAC 50.065 applies to the Permittee if the Permittee conducts open burning or fire fighter training at the stationary source.

Factual Basis: No specific monitoring is required for these conditions. Condition 128.1 requires the Permittee to keep "sufficient records" to demonstrate compliance with the standards for conducting open burning, but does not specify what these records should contain.

With the exception of the firefighter training, extensive monitoring and recordkeeping is not warranted because most of the requirements are prohibitions, which are not easily monitored. Compliance is demonstrated through annual certification required under Condition 146.

Condition 130, Requested Source Tests

Legal Basis: The Permittee is required to conduct source tests as requested by the Department. The Department adopted this condition under 18 AAC 50.345(k) as part of its operating permit program approved by EPA November 30, 2001.

Factual Basis: This condition ensures compliance with the applicable requirement in 18 AAC 50.220(a) and applies because this is a standard condition to be included in all operating permits. Monitoring consists of conducting the requested source test.

Conditions 131 through 133, Operating Conditions, Reference Test Methods, Excess Air Requirements

Legal Basis: These conditions ensure compliance with the applicable requirement in 18 AAC 50.220(b) and apply because the Permittee is required to conduct source tests by this permit. The Permittee is required to conduct source tests as set out in Conditions 131 through 133.

Factual Basis: These conditions supplement the specific monitoring requirements stated elsewhere in this permit. Compliance monitoring with Conditions 131 through 133 consist of the test reports required by Condition 138.

Condition 134, Test Exemption

Legal Basis: This condition ensures compliance with the applicable requirement in 18 AAC 50.345(a) and applies when the unit exhaust is observed for visible emissions.

Factual Basis: As provided in 18 AAC 50.345(a), amended November 9, 2008, 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 135 through 138, Test Deadline Extension, Test Plans, Notifications and Reports

Legal Basis: These conditions ensure compliance with the applicable requirement in 18 AAC 50.345(l)-(o) and apply because the Permittee is required to conduct source test by this permit.

Factual Basis: Standard Conditions 18 AAC 50.345(l) - (o) are incorporated through these conditions. These standard conditions supplement specific monitoring requirements stated elsewhere in this permit. The source test itself monitors compliance with this condition.

Condition 139, Particulate Matter (PM) Calculations

Legal Basis: This condition requires the Permittee to reduce particulate matter data in accord with 18 AAC 50.220(f). It applies when the Permittee tests for compliance with the PM standards in 18 AAC 50.050 or 50.055.

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

Condition 140, Recordkeeping Requirements

Legal Basis: Applies because the Permittee is required by the permit to keep records.

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 an evidence of compliance with this requirement.

Condition 141, Certification

Legal Basis: This condition requires the Permittee to comply with the certification requirement in 18 AAC 50.205 and applies to all Permittees under EPA's approved operating permit program of November 30, 2001.

Factual Basis: This standard condition is required in all operating permits under 18 AAC 50.345(j). This condition requires the Permittee to certify any permit application, report, affirmation, or compliance certification submitted to the Department. To ease the certification burden on the Permittee, the condition allows the excess emission reports to be certified with the stationary source report, even though it must still be submitted more frequently than the stationary source operating report. This condition supplements the reporting requirements of this permit.

Condition 142, Submittals

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

Factual Basis: This condition lists the Department's appropriate address for reports and written notices. The Permittee is required to submit one copy of reports, compliance certifications, and other submittals required by this permit, either electronically or by hard copy. Receipt of the submittal at the correct Department office is sufficient monitoring for this condition. This condition supplements the standard reporting and notification requirements of this permit.

Condition 143, Information Requests

Legal Basis: This condition requires the Permittee to submit requested information to the Department. This is a standard condition from 18 AAC 50.345(i) of the state approved operating permit program effective November 30, 2001.

Factual Basis: This condition requires the Permittee to submit information requested by the Department. Monitoring consists of receipt of the requested information.

Condition 144, Excess Emission and Permit Deviation Reports

Legal Basis: This condition requires the Permittee to comply with the applicable requirement in 18 AAC 50.235(a)(2) and 18 AAC 50.240. 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 adopted this condition as Standard Permit Condition III under 18 AAC 50.346(c) pursuant to AS 46.14.010(e). No additional emission 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 condition meets the requirements of 40 C.F.R. 71.6(a)(3).

Section 12, *Notification Form*

The Department modified the notification form contained in Standard Permit Condition IV in a revised rulemaking dated August 20, 2008 to more adequately meet the requirements of Chapter 50, Air Quality Control. The rulemaking for these changes took effect November 9, 2008. The modification consisted of correcting typos and moving “Failure to Monitor/Report” and “Recordkeeping Failure” to Section 2 - permit deviations.

Condition 145, Operating Reports

Legal Basis: This condition ensures compliance with the applicable requirement in 18 AAC 50.346(b)(6) and applies to all permits.

Factual Basis: The condition restates the requirements for reports listed in regulation. The condition supplements the specific reporting requirements elsewhere in the permit. The reports themselves provide monitoring for compliance with this condition.

The Department used the Standard Permit Condition VII as adopted into regulation on August 20, 2016 pursuant to AS 46.14.010(e). No additional emission 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 condition meets the requirements of 40 C.F.R. 71.6(a)(3).

Condition 146, Annual Compliance Certification

Legal Basis: This condition ensures compliance with the applicable requirement in 18 AAC 50.040(j)(4) and applies to all Permittees.

Factual Basis: This condition specifies the periodic compliance certification requirements, and specifies a due date for the annual compliance certification. Each annual certification provides monitoring records for compliance with this condition.

Condition 146.2 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 one copy of an annual compliance certification report. The Permittee may submit one of the required copies electronically at their discretion. This change more adequately meets the requirements of 18 AAC 50 and agency needs, as the Department can more efficiently distribute the electronic copy to staff in other locations.

Condition 147, NSPS and NESHAP Reports

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

Factual Basis: The condition supplements the specific reporting requirements in 40 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 148, Emission Inventory Reporting

Legal Basis: This condition requires the Permittee to submit emissions data to the State to satisfy the Federal requirement to submit emission inventory data from point sources as required under 40 C.F.R. 51.321. It applies to sources defined as point sources in 40 C.F.R. 51.20. The State must report all data elements in Table 2A of Appendix A to Subpart A of 40 C.F.R. 51 to EPA.

Factual Basis: 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), 12/17/08). A due date of April 30 pressures the Department to have sufficient time to enter the data into EPA's electronic reporting system. Therefore, Permittees should consider submitting the emission inventory through Air Online Services, Permittee Portal.

The air emissions reporting requirements under 40 C.F.R. Part 51 Subpart A applies to States; however, States rely on information provided by point sources to meet the reporting requirements of Part 51 Subpart A. This is a State-only requirement and is not Federally enforceable. In the past, the Department has made information requests to point sources, to which the point source is obligated to reply under 18 AAC 50.200. The information requests occur on a routine basis as established by Part 51 Subpart A and consume significant staff resources. To increase governmental efficiency and reduce costs associated with information requests that occur on a routine basis, it has been determined that a standard permit condition best fulfills the need to gather the information needed to satisfy the requirements of Subpart A of 40 C.F.R. 51.

To ensure that the Department's electronic system reports complete information to the National Emissions Inventory, Title V stationary sources classified as Type A in Table 1 of Appendix A to Subpart A of 40 C.F.R. 51 are required to submit with each annual report all the data elements required for the Type B source triennial reports (see also Table 2A of Appendix A to Subpart A of 40 C.F.R. Part 51). All Type A sources are also classified as Type B sources. However, the Department has streamlined the reporting requirements so Type A sources only need to submit a single type of report every year instead of both an annual report and a separate triennial report every third year.

Condition 149, Permit Applications and Submittals

Legal Basis: The Permittee may need to submit permit applications and related correspondence.

Factual Basis: Standard Permit Condition XIV 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 from the Department to ensure that copies of application materials are submitted to EPA by transferring that responsibility to the Permittee.

Conditions 150 through 151, 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)(10), (12), and (13) incorporated by reference under 18 AAC 50.040(j) require these provisions within this permit. 40 C.F.R. 70 Appendix A documents that EPA fully approved the Alaska operating permit program effective November 30, 2001.

Factual Basis: These are conditions required in 40 C.F.R. 71.6 for all operating permits to allow changes within a permitted stationary source without requiring a permit revision.

Condition 152, 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 accord with the operating permit program under 18 AAC 50.326(j)(3). The obligations for a timely and complete operating permit application are set out in 40 C.F.R. 71.5 incorporated by reference in 18 AAC 50.040(j)(3). 40 C.F.R. 70 Appendix A documents that EPA fully approved the Alaska operating permit program effective November 30, 2001.

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 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 must remit 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, for as long as an application has been submitted within the timeframe allowed 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. Monitoring, recordkeeping, and reporting for this condition consist of the application submittal.

Conditions 153 through 156, General Compliance Requirements

Legal Basis: These conditions ensure compliance with the applicable requirement in 18 AAC 50.326(j)(3). The Permittee is required to comply with these standard conditions set out in 18 AAC 50.345 included in all operating permits. 40 C.F.R. 70 Appendix A documents that EPA fully approved the Alaska operating permit program effective November 30, 2001.

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

Conditions 157 through 158, Permit Shield

Legal Basis: These conditions ensure compliance with the applicable requirement in 18 AAC 50.326(j) and apply because the Permittee has requested that the Department shield the source from the applicable requirements listed under these conditions under the Federally approved State operating program effective November 30, 2001

Factual Basis: Table G of Operating Permit No. AQ0035TVP02 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 T - Permit Shields Denied

Shield Requested for:	Reason for Shield Request	Reason for Denial
All Tanks: 40 C.F.R. 60 Subpart K, 40 C.F.R. 60.112(a)(2)	Tesoro does not store petroleum liquids with true vapor pressure greater than 570 mm Hg (11.1 psia).	The Department does not have enough information to confirm that all petroleum liquids that are stored at the stationary source's tanks have a vapor pressure less than 570mm of Hg. A blanket shield request is not warranted without a tank by tank verification.
All Tanks: 40 C.F.R. 60 Subpart Ka 40 C.F.R. 60.112a(a)(3) 40 C.F.R. 60.113a	Stationary source does not operate a vapor recovery system.	Installation of a vapor recovery system is required if the petroleum liquids stored exceeded 11.1 psia true vapor pressure. Previous compliance records indicate petroleum liquids stored could exceed 11.1 psia true vapor pressure.
All Tanks: 40 C.F.R. 60 Subpart Ka 40 C.F.R. 60.112a(a)(4); 40 C.F.R. 60.114a	Stationary source does not use an alternative means of compliance for 40 C.F.R. 60 Subpart Ka.	This requirement allows flexibility for the Permittee to seek for an alternative compliance method. The Department does not find it beneficial to shield alternative means of compliance.
Individual Drain Systems: 40 C.F.R. 60 Subpart QQQ 40 C.F.R. 60.692-2(d)	Stationary source has not modified or reconstructed any individual drain systems.	60.692-2(d) is an exemption provision for individual drain system modified/reconstructed prior to May 4, 1987. A shield is not necessary for an exemption provision.
Stationary Source-Wide: 40 C.F.R. 61 Subpart FF 40 C.F.R. 61.342(b) –(c)(1), (d) - (f) & (h); 40 C.F.R. 61.343 – 61.354; 40 C.F.R. 61.355(a)(3) & (5), (d) – (k); 40 C.F.R. 61.356(b)(2) –(4) & (6), (d) – (m); 40 C.F.R. 61.357(d) – (g)	Stationary source's total annual benzene (TAB) quantity is less than 10 Mg/yr.	The stationary source has the potential to exceed the 10 Mg/yr total annual benzene exemption threshold. In which case, these requirements would be applicable. The Permittee is also subject to requirements under 40 C.F.R. 61.342(c)(1)(i) and 40 C.F.R. 61.343 through 40 C.F.R. 61.347 if electing to conduct offsite treatment.
Stationary Source-Wide: 40 C.F.R. 63 Subpart CC 40 C.F.R. 63.647(c)	Stationary source's total annual benzene (TAB) quantity is less than 10 Mg/yr.	The stationary source has the potential to exceed the 10 Mg/yr total annual benzene exemption threshold. In which case, these requirements would be applicable.
40 C.F.R. 63.640(n)(1)	Applies to tanks for which NSPS Subpart Kb is applicable. Stationary source does not have any Kb tanks	The stationary source operates a storage tank, EU ID 120, subject to NSPS Subpart Kb.
40 C.F.R. 63.650 & 654(b)	The affected source (gasoline loading rack) in the Stationary source is not operational and there are no plans to make it operational in the future.	The gasoline loading rack has not been permanently disconnected to indicate its permanent operational shutdown.

ATTACHMENT A

Figure 1 -- Summary Report -- Excess Emission and Monitoring System Performance

Pollutant (Circle One—SO_2/NO_X/fuel sulfur)

Reporting period dates:

From ____________ to ____________

Company: ____________________

Emission Limitation: ____________________

Address: ____________________

Monitor Manufacturer and Model No.: ____________________

Date of latest CMS (CEMS and PEMS) Certification or Audit: ____________________

Process Unit(s) Description: ____________________

Total source operating time in reporting period[1]: ____________________

Emission Data Summary[1]	**CMS (CEMS and PEMS) Performance Summary[1]**
1. Duration of excess emissions in reporting period due to:	1. CMS (CEMS and PEMS) downtime in reporting period reporting period due to:
a. Startup/shutdown ________	a. Monitor equipment malfunctions ________
b. Control equipment problems ________	b. Non-Monitor equipment malfunctions ________
c. Process problems ________	c. Quality assurance calibration ________
d. Other known causes ________	d. Other known causes ________
e. Unknown causes ________	e. Unknown causes ________
2. Total duration of excess emission ________	2. Total CMS (CEMS and PEMS) Downtime ________
3. Total duration of excess emissions X (100)/[Total source operating time] ________ %[2]	3. [Total CMS (CEMS and PEMS) 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 (CEMS or PEMS) downtime is 5 percent or greater of the total operating time, both the summary report form and the excess emission report described in this condition shall be submitted.

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