

Statement of Basis

**Permit to Construct No. P-2016.0020
Project ID 61700**

**Tesoro Logistics Operations LLC - Pocatello Terminal
Pocatello, Idaho**

Facility ID 077-00023

Final

A handwritten signature in black ink, appearing to read 'MKW for', is positioned to the left of the typed name and title.

**January 10, 2017
Craig Woodruff
Permit Writer**

The purpose of this Statement of Basis is to satisfy the requirements of IDAPA 58.01.01. et seq, Rules for the Control of Air Pollution in Idaho, for issuing air permits.

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ACRONYMS, UNITS, AND CHEMICAL NOMENCLATURE

AAC	acceptable ambient concentrations
AACC	acceptable ambient concentrations for carcinogens
acfm	actual cubic feet per minute
ASTM	American Society for Testing and Materials
Btu	British thermal units
CAA	Clean Air Act
CAS No.	Chemical Abstracts Service registry number
cfm	cubic feet per minute
CFR	Code of Federal Regulations
CO	carbon monoxide
CO ₂	carbon dioxide
CO ₂ e	CO ₂ equivalent emissions
DEQ	Department of Environmental Quality
dscf	dry standard cubic feet
EL	screening emission levels
EPA	U.S. Environmental Protection Agency
GHG	greenhouse gases
gph	gallons per hour
gpm	gallons per minute
gr	grains (1 lb = 7,000 grains)
HAP	hazardous air pollutants
HHV	higher heating value
hr/yr	hours per consecutive 12 calendar month period
IDAPA	a numbering designation for all administrative rules in Idaho promulgated in accordance with the Idaho Administrative Procedures Act
iwg	inches of water gauge
km	kilometers
lb/hr	pounds per hour
m	meters
MACT	Maximum Achievable Control Technology
mg/dscm	milligrams per dry standard cubic meter
MMBtu	million British thermal units
MMscf	million standard cubic feet
NAAQS	National Ambient Air Quality Standard
NESHAP	National Emission Standards for Hazardous Air Pollutants
NO ₂	nitrogen dioxide
NO _x	nitrogen oxides
NSPS	New Source Performance Standards
O&M	operation and maintenance
PAH	polyaromatic hydrocarbons
PC	permit condition
PCB	polychlorinated biphenyl
PM	particulate matter
PM _{2.5}	particulate matter with an aerodynamic diameter less than or equal to a nominal 2.5 micrometers
PM ₁₀	particulate matter with an aerodynamic diameter less than or equal to a nominal 10 micrometers
POM	polycyclic organic matter
ppm	parts per million
ppmw	parts per million by weight
PSD	Prevention of Significant Deterioration
psig	pounds per square inch gauge
PTC	permit to construct

PTE	potential to emit
PW	process weight rate
<i>Rules</i>	<i>Rules for the Control of Air Pollution in Idaho</i>
scf	standard cubic feet
SCL	significant contribution limits
SIP	State Implementation Plan
SM	synthetic minor
SM80	synthetic minor facility with emissions greater than or equal to 80% of a major source threshold
SO ₂	sulfur dioxide
SO _x	sulfur oxides
T/day	tons per calendar day
T/hr	tons per hour
T/yr	tons per consecutive 12 calendar month period
TAP	toxic air pollutants
T-RACT	Toxic Air Pollutant Reasonably Available Control Technology
ULSD	ultra-low sulfur diesel
U.S.C.	United States Code
VOC	volatile organic compounds
yd ³	cubic yards
µg/m ³	micrograms per cubic meter

FACILITY INFORMATION

Description

Tesoro Logistics Operations LLC – Pocatello Terminal operates a refined petroleum terminal located at 1189 Tank Farm Road, at a site west of central Pocatello, Idaho.

The Terminal consists of numerous storage tanks, a loading rack controlled by a vapor combustion unit (VCU), and various equipment components such as valves, flanges, pumps, and connectors. The VCU is a source of volatile organic compounds (VOC), nitric oxides (NO_x), carbon monoxide (CO), hazardous air pollutant (HAP), toxic air pollutant (TAP), and greenhouse gas (GHG) emissions. VOC emissions also occur from product storage, product loading, and as fugitive from equipment leaks.

The Terminal consists of seventeen tanks for refined petroleum products as well as an additional nine tanks for product additives.

Permitting History

The following information was derived from a review of the permit files available to DEQ. Permit status is noted as active and in effect (A) or superseded (S).

May 3, 2016	PTC exemption concurrence letter was issued to permanently switch the fuel type stored in tanks No 911 and 914. Tank No. 911 will store gasoline and tank No. 914 diesel. Permit status (A)
May 2, 2013	T2-2008.0026, Tier II renewal and ownership change from Tesoro Logistics Operations LLC – Pocatello Terminal to Chevron Pipe Line Co. and Northwest Terminalling Co., Permit Status (A, but will become S upon issuance of this permit)
February 28, 2013	T2-2008.0026, Ownership transfer from Chevron Pipe Line Co. and Northwest Terminalling Co. to Tesoro Logistics Operations LLC- Pocatello Terminal, Permit status (S)
September 20, 2011	PTC exemption concurrence letter was issued to store denatured ethanol in tank No. 916, Permit status (A)
September 9, 2008	T2-2008.0026, Tier II Operating permit was issued, Permit status (S)
July 10, 2003	Tier II/PTC No. T2-030303, revised permit was issued to clarify conditions in the initial Tier II permit, Permit status (S)
January 22, 2003	Tier II/PTC No. 077-00023, Initial Tier II/PTC permit issued to establish Pocatello facility as a synthetic minor source. Title V requirements no longer apply, Permit status (S)
November 14, 2002	PTC exemption concurrence letter was issued for installation of new gasoline tanks No. 921 and 922 to replace tanks No. 904, 909, 910, 913, 915, and 930, Permit status (A)
April 2, 2001	DEQ received an application from Chevron for a Tier II operating permit to be issued as a synthetic minor permit instead of a Tier I permit, Permit status (S)
August 18, 1995	DEQ issued a letter to Chevron acknowledging receipt of a Category I Exemption determination for additive tank A110, Permit status (A)
June 12, 1995	DEQ received an application from Chevron for a Tier I operating permit, Permit status (S)
April 21, 1995	PTC No. 077-00023, modified PTC issued to allow storage of gasoline in tanks No. 919 and 920, including conditions for 40 CFRR 60, Subpart Kb, Permit status (S)

June 6, 1994 PTC No. 077-00023, Revised PTC issued for the addition of diesel storage tanks No919 and 920 to fix a typographical error, Permit status (S)

February 28, 1994 PTC No. 005-00003, Addition of diesel storage tanks No. 919 and 920, Permit status (S)

Application Scope

This PTC is converting Tier II operating permit No.T2-2008.0026, issued May 2, 2013, to a PTC and incorporating vapor combustion unit requirements. Also, this PTC incorporates a name change from Chevron Pipe Line Co. and Northwest Terminalling Co. – Pocatello Terminal to Tesoro Logistics Operations LLC. – Pocatello Terminal.

The applicant has proposed to:

- Incorporate an existing vapor combustion unit into a PTC

Application Chronology

April 15, 2016	DEQ received an application and an application fee.
April 26 – May 11, 2016	DEQ provided an opportunity to request a public comment period on the application and proposed permitting action.
May 12, 2016	DEQ determined that the application was complete.
June 30, 2016	DEQ made available the draft permit and statement of basis for peer and regional office review.
July 11, 2016	DEQ made available the draft permit and statement of basis for applicant review.
Nov 29 – Dec 29, 2016	DEQ provided a public comment period on the proposed action.
Dec 6, 2016	DEQ received the permit processing fee.
Jan 10, 2017	DEQ issued the final permit and statement of basis.

TECHNICAL ANALYSIS

Emissions Units and Control Equipment

Table 1 EMISSIONS UNIT AND CONTROL EQUIPMENT INFORMATION

Source ID No.	Sources	Control Equipment	Emission Point ID No.
1	Truck Loading Rack: Loading Type: Bottom-Loading Balanced Service Model: Loading Arm Vapor Closure: Chicksan Gasoline Throughput: 370,800,990 gal/yr Transmix Throughput: 2,520,000 gal/yr Diesel Throughput: 191,453,010 gal/yr	Vapor Combustion Unit: Manufacturer: John Zink Co. Model: ZCT-2-8-35-X-2/8-X-X Type: Vapor Combustion Flare VOC control efficiency: 95.0% destruction and 99.2% capture efficiency	Exit height: 35 ft (10.67 m) Exit diameter: 8 ft (2.44 m) Exit temperature: 607 °F (319.44 °C)
2	Tank 901 – Diesel, Max Capacity: 369,600 gallons	Vertical Fixed Roof	No Stack
3	Tank 902 – Transmix, Max Capacity: 324,324 gallons	Internal Floating Roof	No Stack
4	Tank 903 – Diesel, Max Capacity: 380,772 gallons	Vertical Fixed Roof	No Stack
5	Tank 905 – Diesel, Max Capacity: 376,782 gallons	Vertical Fixed Roof	No Stack
6	Tank 906 – Diesel, Max Capacity: 379,176 gallons	Vertical Fixed Roof	No Stack
7	Tank 907 – Diesel, Max Capacity: 360,864 gallons	Internal Floating Roof	No Stack
8	Tank 908 – Diesel, Max Capacity: 376,614 gallons	Vertical Fixed Roof	No Stack
9	Tank 911 – Gasoline, Max Capacity: 796,908 gallons	Internal Floating Roof	No Stack
10	Tank 914 – Diesel, Max Capacity: 567,462 gallons	Internal Floating Roof	No Stack
11	Tank 915 – Gasoline, Max Capacity: 378,168 gallons	Internal Floating Roof	No Stack
12	Tank 916 – Ethanol, Max Capacity: 669,522 gallons	Internal Floating Roof	No Stack
13	Tank 917 – Diesel, Max Capacity: 798,294 gallons	Vertical Fixed Roof	No Stack
14	Tank 918 – Diesel, Max Capacity: 807,072 gallons	Internal Floating Roof	No Stack
15	Tank 919 – Gasoline, Max Capacity: 764,106 gallons	Internal Floating Roof	No Stack
16	Tank 920 – Gasoline, Max Capacity: 745,206 gallons	Internal Floating Roof	No Stack
17	Tank 921 – Gasoline, Max Capacity: 1,950,060 gallons	Internal Floating Roof	No Stack
18	Tank 922 – Gasoline, Max Capacity: 1,944,558 gallons	Internal Floating Roof	No Stack
19	Tank A100 – Additive, Max Capacity: 21,000 gallons	Vertical Fixed Roof	No Stack
20	Tank A101 – Additive, Max Capacity: 6,000 gallons	Horizontal Fixed Roof	No Stack
21	Tank A102 – Additive, Max Capacity: 4,000 gallons	Horizontal Fixed Roof	No Stack
22	Tank A105 – Additive, Max Capacity: 2,000 gallons	Horizontal Fixed Roof	No Stack
23	Tank A108 – Additive, Max Capacity: 7,500 gallons	Horizontal Fixed Roof	No Stack
24	Tank A110 – Additive, Max Capacity: 4,000 gallons	Horizontal Fixed Roof	No Stack
25	Tank A112 – Additive, Max Capacity: 6,500 gallons	Horizontal Fixed Roof	No Stack
26	Tank A113 – Additive, Max Capacity: 7,800 gallons	Horizontal Fixed Roof	No Stack
27	Tank A114 – Additive, Max Capacity: 1,600 gallons	Horizontal Fixed Roof	No Stack

Emissions Inventories

Potential to Emit

IDAPA 58.01.01 defines Potential to Emit as the maximum capacity of a facility or stationary source to emit an air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of the facility or source to emit an air 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 state or federally enforceable. Secondary emissions do not count in determining the potential to emit of a facility or stationary source.

Using this definition of Potential to Emit an emission inventory was developed for the truck loading rack, vapor combustion unit, and 26 tanks operating at the facility (see Appendix A) associated with this proposed project. Emissions estimates of criteria pollutant, GHG, and HAP PTE were based on emission factors from AP-42 and Tanks Software, operation of 8,760 hours per year, and process information specific to the facility for this proposed project.

Uncontrolled Potential to Emit

Using the definition of Potential to Emit, uncontrolled Potential to Emit is then defined as the maximum capacity of a facility or stationary source to emit an air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of the facility or source to emit an air 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 **not** be treated as part of its design **since** the limitation or the effect it would have on emissions **is not** state or federally enforceable.

The uncontrolled Potential to Emit is used to determine if a facility is a “Synthetic Minor” source of emissions. Synthetic Minor sources are facilities that have an uncontrolled Potential to Emit for regulated air pollutants or HAP above the applicable Major Source threshold without permit limits.

The following table presents the uncontrolled Potential to Emit for HAP pollutants as submitted by the Applicant and verified by DEQ staff. See Appendix A for a detailed presentation of the calculations and the assumptions used to determine emissions for each emissions unit. For the vapor combustion unit, loading rack, and comfort heater operation uncontrolled Potential to Emit is based upon a worst-case for operation of the facility of 8,760 hr/yr (24 hr/day x 365 day/yr). The calculated HAP PTE was based upon the uncontrolled PTE supplied in lb/hr by the applicant. Then, the worst-case maximum HAP Potential to Emit was determined.

Table 2 UNCONTROLLED POTENTIAL TO EMIT FOR HAZARDOUS AIR POLLUTANTS

Hazardous Air Pollutants	PTE (T/yr)
Benzene	40.0
Biphenyl	0.0000862
Cresol	0.00290
Ethyl Benzene	2.97
n-Hexane	67.6
Isopropyl Benzene	0.253
Isooctane	31.6
Methanol	5.68
Naphthalene	0.0526
Phenol	0.0315
Styrene	0.16
Toluene	48.1
Xylenes	18.6
Total	215.05

Pre-Project Potential to Emit

Pre-project Potential to Emit is used to establish the change in emissions at a facility as a result of this project.

This is for an existing facility and includes all of the emission units located at Tesoro Logistics Operations LLC – Pocatello Terminal. The pre-project VOC emissions from the loading rack were back calculated using the control efficiencies of the Vapor Combustion unit and added to the existing loading rack emissions. The vapor combustion unit control efficiency was assumed to be 95% per the applicant and is only applicable for VOC control of diesel and transmix. The following table presents the pre-project potential to emit for all criteria and GHG pollutants from all emissions units at the facility/for the one unit being modified as submitted by the Applicant and verified by DEQ staff. See Appendix A for a detailed presentation of the calculations of these emissions for each emissions unit.

Table 3 PRE-PROJECT POTENTIAL TO EMIT FOR REGULATED AIR POLLUTANTS

Source	PM ₁₀ /PM _{2.5}		SO ₂		NO _x		CO		VOC		CO ₂ e
	lb/hr ^(a)	T/yr ^(b)	lb/hr ^(a)	T/yr ^(b)	lb/hr ^(a)	T/yr ^(b)	lb/hr ^(a)	T/yr ^(b)	lb/hr ^(a)	T/yr ^(b)	T/yr ^(b)
Tank Losses	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.27	23.07	0.00
Fugitive Fittings	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.25	1.11	0.00
Loading Rack Fugitives	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.17	5.12	0.00
Truck Loading Rack	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.67	20.47	0.00
Pre-Project Totals	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	11.36	49.77	0.00

- a) Controlled average emission rate in pounds per hour is a daily average, based on the proposed daily operating schedule and daily limits.
 b) Controlled average emission rate in tons per year is an annual average, based on the proposed annual operating schedule and annual limits.

Post Project Potential to Emit

Post project Potential to Emit is used to establish the change in emissions at a facility and to determine the facility’s classification as a result of this project. Post project Potential to Emit includes all permit limits resulting from this project.

The following table presents the post project Potential to Emit for criteria and GHG pollutants from all emissions units at the facility as determined by DEQ staff. See Appendix A for a detailed presentation of the calculations of these emissions for each emissions unit.

Table 4 POST PROJECT POTENTIAL TO EMIT FOR REGULATED AIR POLLUTANTS

Source	PM ₁₀ /PM _{2.5}		SO ₂		NO _x		CO		VOC		CO ₂ e
	lb/hr ^(a)	T/yr ^(b)	lb/hr ^(a)	T/yr ^(b)	lb/hr ^(a)	T/yr ^(b)	lb/hr ^(a)	T/yr ^(b)	lb/hr ^(a)	T/yr ^(b)	T/yr ^(b)
Tank Losses	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	5.27	23.07	N/A
Fugitive Fittings	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.25	1.11	N/A
Loading Rack Fugitives	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	22.59	8.21	N/A
Truck Rack VCU	0.48	0.17	0.03	0.02	8.99	3.23	5.03	1.81	35.84	15.85	1225.22
Post Project Totals	0.48	0.17	0.03	0.02	8.99	3.23	5.03	1.81	63.95	48.24	1225.22

- a) Controlled average emission rate in pounds per hour is a daily average, based on the proposed daily operating schedule and daily limits.
 b) Controlled average emission rate in tons per year is an annual average, based on the proposed annual operating schedule and annual limits.

Change in Potential to Emit

The change in facility-wide potential to emit is used to determine if a public comment period may be required and to determine the processing fee per IDAPA 58.01.01.225. The following table presents the facility-wide change in the potential to emit for criteria pollutants.

Table 5 CHANGES IN POTENTIAL TO EMIT FOR REGULATED AIR POLLUTANTS

Source	PM ₁₀ /PM _{2.5}		SO ₂		NO _x		CO		VOC		CO ₂ e
	lb/hr	T/yr	lb/hr	T/yr	lb/hr	T/yr	lb/hr	T/yr	lb/hr	T/yr	T/yr
Pre-Project Potential to Emit	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	11.36	49.77	0.00
Post Project Potential to Emit	0.48	0.17	0.03	0.02	8.99	3.23	5.03	1.81	63.95	48.24	1225.22
Changes in Potential to Emit	0.48	0.17	0.03	0.02	8.99	3.23	5.03	1.81	52.59	-1.53	1225.22

Non-Carcinogenic TAP Emissions

A summary of the estimated PTE for emissions increase of non-carcinogenic toxic air pollutants (TAP) is provided in the following table. TAP emissions were calculated for the vapor combustion unit, loading rack, and comfort heater. Since this is the initial PTC for the vapor combustion unit, pre-project TAP emissions are set to zero.

Pre- and post-project, as well as the change in, non-carcinogenic TAP emissions are presented in the following table:

Table 6 PRE- AND POST PROJECT POTENTIAL TO EMIT FOR NON-CARCINOGENIC TOXIC AIR POLLUTANTS

Non-Carcinogenic Toxic Air Pollutants	Pre-Project 24-hour Average Emissions Rates for Units at the Facility (lb/hr)	Post Project 24-hour Average Emissions Rates for Units at the Facility (lb/hr)	Change in 24-hour Average Emissions Rates for Units at the Facility (lb/hr)	Non-Carcinogenic Screening Emission Level (lb/hr)	Exceeds Screening Level? (Y/N)
Trimethyl Benzene	0.00E-03	8.37E-03	0.0084	8.2	No
2,2,4-Trimethyl-Pentane	0.00E-03	1.51E-01	0.1510	23.3	No
Biphenyl	0.00E-03	1.13E-06	0.0000	0.1	No
Cresol	0.00E-03	3.81E-05	0.0000	1.47	No
Ethyl Benzene	0.00E-03	1.49E-02	0.0149	29	No
n-Hexane	0.00E-03	3.60E-01	0.3600	12	No
Cumene (Isopropyl Benzene)	0.00E-03	1.54E-03	0.0015	16.3	No
Methanol	0.00E-03	2.68E-02	0.0268	17.3	No
Naphthalene	0.00E-03	4.41E-04	0.0004	3.33	No
Phenol	0.00E-03	4.14E-04	0.0004	1.27	No
Styrene	0.00E-03	7.54E-04	0.0008	6.67	No
Toluene	0.00E-03	2.31E-01	0.2310	25	No
Xylenes	0.00E-03	9.21E-02	0.0921	29	No
Dichlorobenzene	0.00E-03	2.20E-05	0.0000	20	No
Nitrous Oxide	0.00E-03	5.62E-03	0.0056	6	No

None of the PTEs for non-carcinogenic TAP were exceeded as a result of this project. Therefore, modeling is not required for any non-carcinogenic TAP because none of the 24-hour average carcinogenic screening ELs identified in IDAPA 58.01.01.585 were exceeded.

Carcinogenic TAP Emissions

A summary of the estimated PTE for emissions increase of carcinogenic toxic air pollutants (TAP) is provided in the following table. TAP emissions were calculated for the vapor combustion unit, loading rack, and comfort heater. Since this is the initial PTC for the vapor combustion unit, pre-project TAP emissions are set to zero.

Pre- and post-project, as well as the change in, carcinogenic TAP emissions are presented in the following table:

Table 7 PRE- AND POST PROJECT POTENTIAL TO EMIT FOR CARCINOGENIC TOXIC AIR POLLUTANTS

Carcinogenic Toxic Air Pollutants	Pre-Project Annual Average Emissions Rates for Units at the Facility (lb/hr)	Post Project Annual Average Emissions Rates for Units at the Facility (lb/hr)	Change in Annual Average Emissions Rates for Units at the Facility (lb/hr)	Carcinogenic Screening Emission Level (lb/hr)	Exceeds Screening Level? (Y/N)
Benzene	0.00E-03	1.88E-01	0.0514	8.0E-04	Yes
Formaldehyde	0.00E-03	1.38E-03	0.0001	5.1E-04	Yes
Arsenic	0.00E-03	3.67E-06	0.0000	1.5E-06	Yes
Beryllium	0.00E-03	2.20E-07	0.0000	2.8E-05	No
Cadmium	0.00E-03	2.02E-05	0.0000	3.7E-06	Yes
Chromium	0.00E-03	2.57E-05	0.0000	0.033	No
Cobalt	0.00E-03	1.54E-06	0.0000	0.0033	No
Manganese	0.00E-03	6.98E-06	0.0000	0.067	No
Nickel	0.00E-03	3.86E-05	0.0000	2.7E-05	Yes
Naphthalene	0.00E-03	4.41E-04	0.0001	9.1E-05	Yes
Selenium	0.00E-03	4.41E-07	0.0000	0.013	No
7-PAH group (POM)	0.00E-03	2.09E-07	0.0000	2.0E-06	No
Benzo(a)pyrene	0.00E-03	2.20E-08	0.0000	2.0E-06	No
PAH	0.00E-03	1.41E-06	0.0000	9.1E-05	No

a) Polycyclic Organic Matter (POM) is considered as one TAP comprised of: benzo(a)anthracene, benzo(b)fluoranthene, benzo(k)fluoranthene, dibenzo(a,h)anthracene, chrysene, indeno(1,2,3-cd)pyrene, benzo(a)pyrene. The total is compared to benzo(a)pyrene.

Some of the PTEs for carcinogenic TAP were exceeded as a result of this project. Therefore, modeling is required for benzene, formaldehyde, arsenic, cadmium, nickel, and naphthalene because the annual average carcinogenic screening ELs identified in IDAPA 58.01.01.586 were exceeded.

Post Project HAP Emissions

The following table presents the post project potential to emit for HAP pollutants from all emissions units at the facility as submitted by the Applicant and verified by DEQ staff. See Appendix A for a detailed presentation of the calculations of these emissions for each emissions unit.

Table 8 HAZARDOUS AIR POLLUTANTS EMISSIONS POTENTIAL TO EMIT SUMMARY

Hazardous Air Pollutants	PTE (T/yr)
Benzene	1.87E-01
Biphenyl	6.05E-02
Cresol	6.07E-02
Ethyl Benzene	8.96E-02
n-Hexane	4.45E-01
Isopropyl Benzene	6.78E-02
Isooctane	2.01E-01
Methanol	7.70E-02
Naphthalene	6.47E-02
Phenol	1.48E-03
Styrene	6.11E-02
Toluene	3.10E-01
Xylenes	1.98E-01
Totals	1.82

Ambient Air Quality Impact Analyses

As presented in the Modeling Memo in Appendix B, the estimated emission rates of NO_x and TAP from this project exceeded applicable screening emission levels (EL) and published DEQ modeling thresholds established in IDAPA 58.01.01.585-586 and in the State of Idaho Air Quality Modeling Guideline¹. Refer to the Emissions Inventories section for additional information concerning the emission inventories.

The applicant has demonstrated pre-construction compliance to DEQ's satisfaction that emissions from this facility will not cause or significantly contribute to a violation of any ambient air quality standard. The applicant has also demonstrated pre-construction compliance to DEQ's satisfaction that the emissions increase due to this permitting action will not exceed any acceptable ambient concentration (AAC) or acceptable ambient concentration for carcinogens (AACC) for toxic air pollutants (TAP). A summary of the Ambient Air Impact Analysis for TAP is provided in Appendix A.

An ambient air quality impact analyses document has been crafted by DEQ based on a review of the modeling analysis submitted in the application. That document is part of the final permit package for this permitting action (see Appendix B).

REGULATORY ANALYSIS

Attainment Designation (40 CFR 81.313)

The facility is located in Bannock County, which is designated as attainment or unclassifiable for PM_{2.5}, PM₁₀, SO₂, NO₂, CO, and Ozone. Refer to 40 CFR 81.313 for additional information.

¹ Criteria pollutant thresholds in Table 2, State of Idaho Guideline for Performing Air Quality Impact Analyses, Doc ID AQ-011, September 2013.

Facility Classification

The AIRS/AFS facility classification codes are as follows:

For THAPs (Total Hazardous Air Pollutants) Only:

- A = Use when any one HAP has actual or potential emissions ≥ 10 T/yr or if the aggregate of all HAPS (Total HAPs) has actual or potential emissions ≥ 25 T/yr.
- SM80 = Use if a synthetic minor (potential emissions fall below applicable major source thresholds if and only if the source complies with federally enforceable limitations) and the permit sets limits ≥ 8 T/yr of a single HAP or ≥ 20 T/yr of THAP.
- SM = Use if a synthetic minor (potential emissions fall below applicable major source thresholds if and only if the source complies with federally enforceable limitations) and the potential HAP emissions are limited to < 8 T/yr of a single HAP and/or < 20 T/yr of THAP.
- B = Use when the potential to emit without permit restrictions is below the 10 and 25 T/yr major source threshold
- UNK = Class is unknown

For All Other Pollutants:

- A = Actual or potential emissions of a pollutant are ≥ 100 T/yr.
- SM80 = Use if a synthetic minor for the applicable pollutant (potential emissions fall below 100 T/yr if and only if the source complies with federally enforceable limitations) and potential emissions of the pollutant are ≥ 80 T/yr.
- SM = Use if a synthetic minor for the applicable pollutant (potential emissions fall below 100 T/yr if and only if the source complies with federally enforceable limitations) and potential emissions of the pollutant are < 80 T/yr.
- B = Actual and potential emissions are < 100 T/yr without permit restrictions.
- UNK = Class is unknown.

Table 9 REGULATED AIR POLLUTANT FACILITY CLASSIFICATION

Pollutant	Uncontrolled PTE (T/yr)	Permitted PTE (T/yr)	Major Source Thresholds (T/yr)	AIRS/AFS Classification
PM	N/A	0.17	100	B
PM ₁₀ /PM _{2.5}	N/A	0.17	100	B
SO ₂	N/A	0.02	100	B
NO _x	N/A	3.23	100	B
CO	N/A	1.81	100	B
VOC ^(a)	N/A	43.23	100	SM
HAP (single) ^(b)	67.6	0.445	10	SM
HAP (Total) ^(b)	215.05	1.82	25	SM

- a) Uncontrolled VOC has been shown to be greater than 100 T/yr in previous permitting actions. Therefore, the Facility is classified as Synthetic Minor for VOCs.
- b) Uncontrolled HAP, both single and total, was only calculated for the loading rack, vapor combustion unit, and comfort heater. The tanks have been omitted from this calculation; however the facility is classified as Synthetic Minor based on these emission units.

Permit to Construct (IDAPA 58.01.01.201)

IDAPA 58.01.01.201Permit to Construct Required

The permittee has requested that a PTC be issued to the facility for the modified emissions source. Therefore, a permit to construct is required to be issued in accordance with IDAPA 58.01.01.220. This permitting action was processed in accordance with the procedures of IDAPA 58.01.01.200-228.

Tier II Operating Permit (IDAPA 58.01.01.401)

IDAPA 58.01.01.401 Tier II Operating Permit

The application was submitted for a permit to construct (refer to the Permit to Construct section), and an optional Tier II operating permit has not been requested. Therefore, the procedures of IDAPA 58.01.01.400–410 were not applicable to this permitting action.

Visible Emissions (IDAPA 58.01.01.625)

IDAPA 58.01.01.625 Visible Emissions

The sources of PM₁₀ emissions at this facility are subject to the State of Idaho visible emissions standard of 20% opacity. This requirement is assured by Permit Conditions 2.7 and 2.8.

Title V Classification (IDAPA 58.01.01.300, 40 CFR Part 70)

IDAPA 58.01.01.301 Requirement to Obtain Tier I Operating Permit

Post project facility-wide emissions from this facility do not have a potential to emit greater than 100 tons per year for PM₁₀, SO₂, NO_x, CO, VOC, or 10 tons per year for any one HAP or 25 tons per year for all HAP combined as demonstrated previously in the Emissions Inventories Section of this analysis. Therefore, the facility is not a Tier I source in accordance with IDAPA 58.01.01.006 and the requirements of IDAPA 58.01.01.301 do not apply.

PSD Classification (40 CFR 52.21)

40 CFR 52.21 Prevention of Significant Deterioration of Air Quality

The facility is not a major stationary source as defined in 40 CFR 52.21(b)(1), nor is it undergoing any physical change at a stationary source not otherwise qualifying under paragraph 40 CFR 52.21(b)(1) as a major stationary source, that would constitute a major stationary source by itself as defined in 40 CFR 52. Therefore in accordance with 40 CFR 52.21(a)(2), PSD requirements are not applicable to this permitting action. The facility is/is not a designated facility as defined in 40 CFR 52.21(b)(1)(i)(a), and does not have facility-wide emissions of any criteria pollutant that exceed 250 T/yr.

NSPS Applicability (40 CFR 60)

Because the facility operates gasoline storage tanks and is subject to 40 CFR 63 Subpart R, as outlined in MACT applicability the following requirements apply:

- **40 CFR 60, Subpart Kb – Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels)**

DEQ has been delegated authority of this subpart.

The applicable requirements of this subpart are highlighted below.

52 FR 11429, Oct. 15, 2003, 40 CFR 6, Subpart Kb – Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels)

§ 60.110b.....Applicability and designation of affected facility.

(a) Except as provided in paragraph (b) of this section, the affected facility to which this subpart applies is each storage vessel with a capacity greater than or equal to 75 cubic meters (m³) that is used to store volatile organic liquids (VOL) for which construction, reconstruction, or modification is commenced after July 23, 1984.

(b) This subpart does not apply to storage vessels with a capacity greater than or equal to 151 m³ storing a liquid with a maximum true vapor pressure less than 3.5 kilopascals (kPa) or with a capacity greater than or equal to 75 m³ but less than 151 m³ storing a liquid with a maximum true vapor pressure less than 15.0 kPa.

(c) [Reserved]

(d) This subpart does not apply to the following:

- (1) Vessels at coke oven by-product plants.
- (2) Pressure vessels designed to operate in excess of 204.9 kPa and without emissions to the atmosphere.
- (3) Vessels permanently attached to mobile vehicles such as trucks, railcars, barges, or ships.
- (4) Vessels with a design capacity less than or equal to 1,589.874 m³ used for petroleum or condensate stored, processed, or treated prior to custody transfer.
- (5) Vessels located at bulk gasoline plants.
- (6) Storage vessels located at gasoline service stations.
- (7) Vessels used to store beverage alcohol.
- (8) Vessels subject to subpart GGGG of 40 CFR part 63.

(e) *Alternative means of compliance*—(1) *Option to comply with part 65.* Owners or operators may choose to comply with 40 CFR part 65, subpart C, to satisfy the requirements of §§60.112b through 60.117b for storage vessels that are subject to this subpart that meet the specifications in paragraphs (e)(1)(i) and (ii) of this section. When choosing to comply with 40 CFR part 65, subpart C, the monitoring requirements of §60.116b(c), (e), (f)(1), and (g) still apply. Other provisions applying to owners or operators who choose to comply with 40 CFR part 65 are provided in 40 CFR 65.1.

(i) A storage vessel with a design capacity greater than or equal to 151 m³ containing a VOL that, as stored, has a maximum true vapor pressure equal to or greater than 5.2 kPa; or

(ii) A storage vessel with a design capacity greater than 75 m³ but less than 151 m³ containing a VOL that, as stored, has a maximum true vapor pressure equal to or greater than 27.6 kPa.

(2) *Part 60, subpart A.* Owners or operators who choose to comply with 40 CFR part 65, subpart C, must also comply with §§60.1, 60.2, 60.5, 60.6, 60.7(a)(1) and (4), 60.14, 60.15, and 60.16 for those storage vessels. All sections and paragraphs of subpart A of this part that are not mentioned in this paragraph (e)(2) do not apply to owners or operators of storage vessels complying with 40 CFR part 65, subpart C, except that provisions required to be met prior to implementing 40 CFR part 65 still apply. Owners and operators who choose to comply with 40 CFR part 65, subpart C, must comply with 40 CFR part 65, subpart A.

(3) *Internal floating roof report.* If an owner or operator installs an internal floating roof and, at initial startup, chooses to comply with 40 CFR part 65, subpart C, a report shall be furnished to the Administrator stating that the control equipment meets the specifications of 40 CFR 65.43. This report shall be an attachment to the notification required by 40 CFR 65.5(b).

(4) *External floating roof report.* If an owner or operator installs an external floating roof and, at initial startup, chooses to comply with 40 CFR part 65, subpart C, a report shall be furnished to the Administrator stating that the control equipment meets the specifications of 40 CFR 65.44. This report shall be an attachment to the notification required by 40 CFR 65.5(b).

Tesoro Logistics Operations operates four tanks which have a capacity greater than 75 cubic meters that store gasoline. These tanks are greater than 151 cubic meters but the maximum true vapor pressure of gasoline is greater than 3.5 kilopascals. The storage units directly regulated by this subpart are also subject to alternative means of compliance if they so choose. CFR 63 Subpart R references this subpart and those affected tanks are subject to §60.110b(a) and §60.110b(b) but not alternative means of compliance.

§ 60.111b.....Definitions.

The definitions of Subpart Kb apply to this facility and no further discussion is required.

§ 60.112b.....Standard for volatile organic compounds (VOC).

(a) The owner or operator of each storage vessel either with a design capacity greater than or equal to 151 m³ containing a VOL that, as stored, has a maximum true vapor pressure equal to or greater than 5.2 kPa but less than 76.6 kPa or with a design capacity greater than or equal to 75 m³ but less than 151 m³ containing a VOL that, as stored, has a maximum true vapor pressure equal to or greater than 27.6 kPa but less than 76.6 kPa, shall equip each storage vessel with one of the following:

(1) A fixed roof in combination with an internal floating roof meeting the following specifications:

(i) The internal floating roof shall rest or float on the liquid surface (but not necessarily in complete contact with it) inside a storage vessel that has a fixed roof. The internal floating roof shall be floating on the liquid surface at all times, except during initial fill and during those intervals when the storage vessel is completely emptied or subsequently emptied and refilled. When the roof is resting on the leg supports, the process of filling, emptying, or refilling shall be continuous and shall be accomplished as rapidly as possible.

(ii) Each internal floating roof shall be equipped with one of the following closure devices between the wall of the storage vessel and the edge of the internal floating roof:

(A) A foam- or liquid-filled seal mounted in contact with the liquid (liquid-mounted seal). A liquid-mounted seal means a foam- or liquid-filled seal mounted in contact with the liquid between the wall of the storage vessel and the floating roof continuously around the circumference of the tank.

(B) Two seals mounted one above the other so that each forms a continuous closure that completely covers the space between the wall of the storage vessel and the edge of the internal floating roof. The lower seal may be vapor-mounted, but both must be continuous.

(C) A mechanical shoe seal. A mechanical shoe seal is a metal sheet held vertically against the wall of the storage vessel by springs or weighted levers and is connected by braces to the floating roof. A flexible coated fabric (envelope) spans the annular space between the metal sheet and the floating roof.

(iii) Each opening in a noncontact internal floating roof except for automatic bleeder vents (vacuum breaker vents) and the rim space vents is to provide a projection below the liquid surface.

(iv) Each opening in the internal floating roof except for leg sleeves, automatic bleeder vents, rim space vents, column wells, ladder wells, sample wells, and stub drains is to be equipped with a cover or lid which is to be maintained in a closed position at all times (i.e., no visible gap) except when the device is in actual use. The cover or lid shall be equipped with a gasket. Covers on each access hatch and automatic gauge float well shall be bolted except when they are in use.

(v) Automatic bleeder vents shall be equipped with a gasket and are to be closed at all times when the roof is floating except when the roof is being floated off or is being landed on the roof leg supports.

(vi) Rim space vents shall be equipped with a gasket and are to be set to open only when the internal floating roof is not floating or at the manufacturer's recommended setting.

(vii) Each penetration of the internal floating roof for the purpose of sampling shall be a sample well. The sample well shall have a slit fabric cover that covers at least 90 percent of the opening.

(viii) Each penetration of the internal floating roof that allows for passage of a column supporting the fixed roof shall have a flexible fabric sleeve seal or a gasketed sliding cover.

(ix) Each penetration of the internal floating roof that allows for passage of a ladder shall have a gasketed sliding cover.

(2) An external floating roof. An external floating roof means a pontoon-type or double-deck type cover that rests on the liquid surface in a vessel with no fixed roof. Each external floating roof must meet the following specifications:

(i) Each external floating roof shall be equipped with a closure device between the wall of the storage vessel and the roof edge. The closure device is to consist of two seals, one above the other. The lower seal is referred to as the primary seal, and the upper seal is referred to as the secondary seal.

(A) The primary seal shall be either a mechanical shoe seal or a liquid-mounted seal. Except as provided in §60.113b(b)(4), the seal shall completely cover the annular space between the edge of the floating roof and tank wall.

(B) The secondary seal shall completely cover the annular space between the external floating roof and the wall of the storage vessel in a continuous fashion except as allowed in §60.113b(b)(4).

(ii) Except for automatic bleeder vents and rim space vents, each opening in a noncontact external floating roof shall provide a projection below the liquid surface. Except for automatic bleeder vents, rim space vents, roof drains, and leg sleeves, each opening in the roof is to be equipped with a gasketed cover, seal, or lid that is to be maintained in a closed position at all times (i.e., no visible gap) except when the device is in actual use. Automatic bleeder vents are to be closed at all times when the roof is floating except when the roof is being floated off or is being landed on the roof leg supports. Rim vents are to be set to open when the roof is being floated off the roof legs supports or at the manufacturer's recommended setting. Automatic bleeder vents and rim space vents are to be gasketed. Each emergency roof drain is to be provided with a slotted membrane fabric cover that covers at least 90 percent of the area of the opening.

(iii) The roof shall be floating on the liquid at all times (i.e., off the roof leg supports) except during initial fill until the roof is lifted off leg supports and when the tank is completely emptied and subsequently refilled. The process of filling, emptying, or refilling when the roof is resting on the leg supports shall be continuous and shall be accomplished as rapidly as possible.

(3) A closed vent system and control device meeting the following specifications:

(i) The closed vent system shall be designed to collect all VOC vapors and gases discharged from the storage vessel and operated with no detectable emissions as indicated by an instrument reading of less than 500 ppm above background and visual inspections, as determined in part 60, subpart VV, §60.485(b).

(ii) The control device shall be designed and operated to reduce inlet VOC emissions by 95 percent or greater. If a flare is used as the control device, it shall meet the specifications described in the general control device requirements (§60.18) of the General Provisions.

(4) A system equivalent to those described in paragraphs (a)(1), (a)(2), or (a)(3) of this section as provided in §60.114b of this subpart.

Tesoro Logistics Operations is required to install the roof type described in §60.112b(a) or §60.112b(b). The four tanks that are directly subject to this subpart have internal floating roofs installed, therefore §60.112b(a) is applicable. The tanks that are subject through reference by CFR 63 Subpart R also have internal floating roofs installed and §60.112b(a)(1)(i) through §60.112b(a)(1)(iii) are applicable. Compliance is assured by Permit Condition 4.7.

(b) The owner or operator of each storage vessel with a design capacity greater than or equal to 75 m³ which contains a VOL that, as stored, has a maximum true vapor pressure greater than or equal to 76.6 kPa shall equip each storage vessel with one of the following:

(1) A closed vent system and control device as specified in §60.112b(a)(3).

(2) A system equivalent to that described in paragraph (b)(1) as provided in §60.114b of this subpart.

Tesoro Logistics Operations does not store any species with a vapor pressure greater than 76.6 kPa, therefore §60.112b(b) is not applicable.

(c) *Site-specific standard for Merck & Co., Inc.'s Stonewall Plant in Elkton, Virginia.* This paragraph applies only to the pharmaceutical manufacturing facility, commonly referred to as the Stonewall Plant, located at Route 340 South, in Elkton, Virginia (“site”).

(1) For any storage vessel that otherwise would be subject to the control technology requirements of paragraphs (a) or (b) of this section, the site shall have the option of either complying directly with the requirements of this subpart, or reducing the site-wide total criteria pollutant emissions cap (total emissions cap) in accordance with the procedures set forth in a permit issued pursuant to 40 CFR 52.2454. If the site chooses the option of reducing the total emissions cap in accordance with the procedures set forth in such permit, the requirements of such permit shall apply in lieu of the otherwise applicable requirements of this subpart for such storage vessel.

(2) For any storage vessel at the site not subject to the requirements of 40 CFR 60.112b (a) or (b), the requirements of 40 CFR 60.116b (b) and (c) and the General Provisions (subpart A of this part) shall not apply.

Tesoro Logistics Operations is not Merck & Co., Inc.'s Stonewall Plant in Elkton, Virginia, therefore §60.112b(c) is not applicable.

§ 60.113b..... Testing and procedures.

The owner or operator of each storage vessel as specified in §60.112b(a) shall meet the requirements of paragraph (a), (b), or (c) of this section. The applicable paragraph for a particular storage vessel depends on the control equipment installed to meet the requirements of §60.112b.

(a) After installing the control equipment required to meet §60.112b(a)(1) (permanently affixed roof and internal floating roof), each owner or operator shall:

(1) Visually inspect the internal floating roof, the primary seal, and the secondary seal (if one is in service), prior to filling the storage vessel with VOL. If there are holes, tears, or other openings in the primary seal, the secondary seal, or the seal fabric or defects in the internal floating roof, or both, the owner or operator shall repair the items before filling the storage vessel.

(2) For Vessels equipped with a liquid-mounted or mechanical shoe primary seal, visually inspect the internal floating roof and the primary seal or the secondary seal (if one is in service) through manholes and roof hatches on the fixed roof at least once every 12 months after initial fill. If the internal floating roof is not resting on the surface of the VOL inside the storage vessel, or there is liquid accumulated on the roof, or the seal is detached, or there are holes or tears in the seal fabric, the owner or operator shall repair the items or empty and remove the storage vessel from service within 45 days. If a failure that is detected during inspections required in this paragraph cannot be repaired within 45 days and if the vessel cannot be emptied within 45 days, a 30-day extension may be requested from the Administrator in the inspection report required in §60.115b(a)(3). Such a request for an extension must document that alternate storage capacity is unavailable and specify a schedule of actions the company will take that will assure that the control equipment will be repaired or the vessel will be emptied as soon as possible.

(3) For vessels equipped with a double-seal system as specified in §60.112b(a)(1)(ii)(B):

(i) Visually inspect the vessel as specified in paragraph (a)(4) of this section at least every 5 years; or

(ii) Visually inspect the vessel as specified in paragraph (a)(2) of this section.

(4) Visually inspect the internal floating roof, the primary seal, the secondary seal (if one is in service), gaskets, slotted membranes and sleeve seals (if any) each time the storage vessel is emptied and degassed. If the internal floating roof has defects, the primary seal has holes, tears, or other openings in the seal or the seal fabric, or the secondary seal has holes, tears, or other openings in the seal or the seal fabric, or the gaskets no longer close off the liquid surfaces from the atmosphere, or the slotted membrane has more than 10 percent open area, the owner or operator shall repair the items as necessary so that none of the conditions specified in this paragraph exist before refilling the storage vessel with VOL. In no event shall inspections conducted in accordance with this provision occur at intervals greater than 10 years in the case of vessels conducting the annual visual inspection as specified in paragraphs (a)(2) and (a)(3)(ii) of this section and at intervals no greater than 5 years in the case of vessels specified in paragraph (a)(3)(i) of this section.

(5) Notify the Administrator in writing at least 30 days prior to the filling or refilling of each storage vessel for which an inspection is required by paragraphs (a)(1) and (a)(4) of this section to afford the Administrator the opportunity to have an observer present. If the inspection required by paragraph (a)(4) of this section is not planned and the owner or operator could not have known about the inspection 30 days in advance or refilling the tank, the owner or operator shall notify the Administrator at least 7 days prior to the refilling of the storage vessel. Notification shall be made by telephone immediately followed by written documentation demonstrating why the inspection was unplanned. Alternatively, this notification including the written documentation may be made in writing and sent by express mail so that it is received by the Administrator at least 7 days prior to the refilling.

Tesoro Logistics Operations operates tanks that are required to install one of the roof types described in §60.112b(a) or §60.112b(b). The facility has installed internal floating roofs on all of the tanks that are applicable to this subpart. Therefore, the facility is subject to the testing and procedures requirements set forth in §60.112b(a)(1) through (5). Compliance is assured by Permit Condition 4.9.

(b) After installing the control equipment required to meet §60.112b(a)(2) (external floating roof), the owner or operator shall:

(1) Determine the gap areas and maximum gap widths, between the primary seal and the wall of the storage vessel and between the secondary seal and the wall of the storage vessel according to the following frequency.

(i) Measurements of gaps between the tank wall and the primary seal (seal gaps) shall be performed during the hydrostatic testing of the vessel or within 60 days of the initial fill with VOL and at least once every 5 years thereafter.

(ii) Measurements of gaps between the tank wall and the secondary seal shall be performed within 60 days of the initial fill with VOL and at least once per year thereafter.

(iii) If any source ceases to store VOL for a period of 1 year or more, subsequent introduction of VOL into the vessel shall be considered an initial fill for the purposes of paragraphs (b)(1)(i) and (b)(1)(ii) of this section.

(2) Determine gap widths and areas in the primary and secondary seals individually by the following procedures:

(i) Measure seal gaps, if any, at one or more floating roof levels when the roof is floating off the roof leg supports.

(ii) Measure seal gaps around the entire circumference of the tank in each place where a 0.32-cm diameter uniform probe passes freely (without forcing or binding against seal) between the seal and the wall of the storage vessel and measure the circumferential distance of each such location.

(iii) The total surface area of each gap described in paragraph (b)(2)(ii) of this section shall be determined by using probes of various widths to measure accurately the actual distance from the tank wall to the seal and multiplying each such width by its respective circumferential distance.

- (3) Add the gap surface area of each gap location for the primary seal and the secondary seal individually and divide the sum for each seal by the nominal diameter of the tank and compare each ratio to the respective standards in paragraph (b)(4) of this section.
- (4) Make necessary repairs or empty the storage vessel within 45 days of identification in any inspection for seals not meeting the requirements listed in (b)(4) (i) and (ii) of this section:
- (i) The accumulated area of gaps between the tank wall and the mechanical shoe or liquid-mounted primary seal shall not exceed 212 cm² per meter of tank diameter, and the width of any portion of any gap shall not exceed 3.81 cm.
 - (A) One end of the mechanical shoe is to extend into the stored liquid, and the other end is to extend a minimum vertical distance of 61 cm above the stored liquid surface.
 - (B) There are to be no holes, tears, or other openings in the shoe, seal fabric, or seal envelope.
 - (ii) The secondary seal is to meet the following requirements:
 - (A) The secondary seal is to be installed above the primary seal so that it completely covers the space between the roof edge and the tank wall except as provided in paragraph (b)(2)(iii) of this section.
 - (B) The accumulated area of gaps between the tank wall and the secondary seal shall not exceed 21.2 cm² per meter of tank diameter, and the width of any portion of any gap shall not exceed 1.27 cm.
 - (C) There are to be no holes, tears, or other openings in the seal or seal fabric.
 - (iii) If a failure that is detected during inspections required in paragraph (b)(1) of §60.113b(b) cannot be repaired within 45 days and if the vessel cannot be emptied within 45 days, a 30-day extension may be requested from the Administrator in the inspection report required in §60.115b(b)(4). Such extension request must include a demonstration of unavailability of alternate storage capacity and a specification of a schedule that will assure that the control equipment will be repaired or the vessel will be emptied as soon as possible.
- (5) Notify the Administrator 30 days in advance of any gap measurements required by paragraph (b)(1) of this section to afford the Administrator the opportunity to have an observer present.
- (6) Visually inspect the external floating roof, the primary seal, secondary seal, and fittings each time the vessel is emptied and degassed.
- (i) If the external floating roof has defects, the primary seal has holes, tears, or other openings in the seal or the seal fabric, or the secondary seal has holes, tears, or other openings in the seal or the seal fabric, the owner or operator shall repair the items as necessary so that none of the conditions specified in this paragraph exist before filling or refilling the storage vessel with VOL.
 - (ii) For all the inspections required by paragraph (b)(6) of this section, the owner or operator shall notify the Administrator in writing at least 30 days prior to the filling or refilling of each storage vessel to afford the Administrator the opportunity to inspect the storage vessel prior to refilling. If the inspection required by paragraph (b)(6) of this section is not planned and the owner or operator could not have known about the inspection 30 days in advance of refilling the tank, the owner or operator shall notify the Administrator at least 7 days prior to the refilling of the storage vessel. Notification shall be made by telephone immediately followed by written documentation demonstrating why the inspection was unplanned. Alternatively, this notification including the written documentation may be made in writing and sent by express mail so that it is received by the Administrator at least 7 days prior to the refilling.

Tesoro Logistics Operations installed internal floating roofs on all of the applicable tanks. Therefore, the testing and procedures for external floating roofs as described in §60.113b(b) are not applicable.

(c) The owner or operator of each source that is equipped with a closed vent system and control device as required in §60.112b (a)(3) or (b)(2) (other than a flare) is exempt from §60.8 of the General Provisions and shall meet the following requirements.

(1) Submit for approval by the Administrator as an attachment to the notification required by §60.7(a)(1) or, if the facility is exempt from §60.7(a)(1), as an attachment to the notification required by §60.7(a)(2), an operating plan containing the information listed below.

(i) Documentation demonstrating that the control device will achieve the required control efficiency during maximum loading conditions. This documentation is to include a description of the gas stream which enters the control device, including flow and VOC content under varying liquid level conditions (dynamic and static) and manufacturer's design specifications for the control device. If the control device or the closed vent capture system receives vapors, gases, or liquids other than fuels from sources that are not designated sources under this subpart, the efficiency demonstration is to include consideration of all vapors, gases, and liquids received by the closed vent capture system and control device. If an enclosed combustion device with a minimum residence time of 0.75 seconds and a minimum temperature of 816 °C is used to meet the 95 percent requirement, documentation that those conditions will exist is sufficient to meet the requirements of this paragraph.

(ii) A description of the parameter or parameters to be monitored to ensure that the control device will be operated in conformance with its design and an explanation of the criteria used for selection of that parameter (or parameters).

(2) Operate the closed vent system and control device and monitor the parameters of the closed vent system and control device in accordance with the operating plan submitted to the Administrator in accordance with paragraph (c)(1) of this section, unless the plan was modified by the Administrator during the review process. In this case, the modified plan applies.

(d) The owner or operator of each source that is equipped with a closed vent system and a flare to meet the requirements in §60.112b (a)(3) or (b)(2) shall meet the requirements as specified in the general control device requirements, §60.18 (e) and (f).

Tesoro Logistics Operations has not installed a closed vent system on any of the subject tanks nor have they installed a closed vent system with a flare. Therefore, the testing and procedures for these systems are not applicable.

§ 60.114b.....Alternative means of emission limitation

(a) If, in the Administrator's judgment, an alternative means of emission limitation will achieve a reduction in emissions at least equivalent to the reduction in emissions achieved by any requirement in §60.112b, the Administrator will publish in the Federal Register a notice permitting the use of the alternative means for purposes of compliance with that requirement.

(b) Any notice under paragraph (a) of this section will be published only after notice and an opportunity for a hearing.

(c) Any person seeking permission under this section shall submit to the Administrator a written application including:

(1) An actual emissions test that uses a full-sized or scale-model storage vessel that accurately collects and measures all VOC emissions from a given control device and that accurately simulates wind and accounts for other emission variables such as temperature and barometric pressure.

(2) An engineering evaluation that the Administrator determines is an accurate method of determining equivalence.

(d) The Administrator may condition the permission on requirements that may be necessary to ensure operation and maintenance to achieve the same emissions reduction as specified in §60.112b.

Tesoro Logistics Operations has the option to use the provisions of §60.114b for alternative means of emission limitation under §60.112b. Compliance is assured by Permit Condition 4.10.

§ 60.115b.....Reporting and recordkeeping requirements.

The owner or operator of each storage vessel as specified in §60.112b(a) shall keep records and furnish reports as required by paragraphs (a), (b), or (c) of this section depending upon the control equipment installed to meet the requirements of §60.112b. The owner or operator shall keep copies of all reports and records required by this section, except for the record required by (c)(1), for at least 2 years. The record required by (c)(1) will be kept for the life of the control equipment.

(a) After installing control equipment in accordance with §60.112b(a)(1) (fixed roof and internal floating roof), the owner or operator shall meet the following requirements:

(1) Furnish the Administrator with a report that describes the control equipment and certifies that the control equipment meets the specifications of §60.112b(a)(1) and §60.113b(a)(1). This report shall be an attachment to the notification required by §60.7(a)(3).

(2) Keep a record of each inspection performed as required by §60.113b (a)(1), (a)(2), (a)(3), and (a)(4). Each record shall identify the storage vessel on which the inspection was performed and shall contain the date the vessel was inspected and the observed condition of each component of the control equipment (seals, internal floating roof, and fittings).

(3) If any of the conditions described in §60.113b(a)(2) are detected during the annual visual inspection required by §60.113b(a)(2), a report shall be furnished to the Administrator within 30 days of the inspection. Each report shall identify the storage vessel, the nature of the defects, and the date the storage vessel was emptied or the nature of and date the repair was made.

(4) After each inspection required by §60.113b(a)(3) that finds holes or tears in the seal or seal fabric, or defects in the internal floating roof, or other control equipment defects listed in §60.113b(a)(3)(ii), a report shall be furnished to the Administrator within 30 days of the inspection. The report shall identify the storage vessel and the reason it did not meet the specifications of §61.112b(a)(1) or §60.113b(a)(3) and list each repair made.

Tesoro Logistics Operations has installed internal floating roofs and is subject to the recordkeeping requirements set forth in §60.115b(a). Compliance is assured by Permit Condition 4.12.

(b) After installing control equipment in accordance with §61.112b(a)(2) (external floating roof), the owner or operator shall meet the following requirements.

(1) Furnish the Administrator with a report that describes the control equipment and certifies that the control equipment meets the specifications of §60.112b(a)(2) and §60.113b(b)(2), (b)(3), and (b)(4). This report shall be an attachment to the notification required by §60.7(a)(3).

(2) Within 60 days of performing the seal gap measurements required by §60.113b(b)(1), furnish the Administrator with a report that contains:

(i) The date of measurement.

(ii) The raw data obtained in the measurement.

(iii) The calculations described in §60.113b (b)(2) and (b)(3).

(3) Keep a record of each gap measurement performed as required by §60.113b(b). Each record shall identify the storage vessel in which the measurement was performed and shall contain:

(i) The date of measurement.

(ii) The raw data obtained in the measurement.

(iii) The calculations described in §60.113b (b)(2) and (b)(3).

(4) After each seal gap measurement that detects gaps exceeding the limitations specified by §60.113b(b)(4), submit a report to the Administrator within 30 days of the inspection. The report will identify the vessel and contain the information specified in paragraph (b)(2) of this section and the date the vessel was emptied or the repairs made and date of repair.

The tanks operated by this facility subject to this subpart are not equipped with external floating roofs and §60.115b(b) does not apply.

(c) After installing control equipment in accordance with §60.112b (a)(3) or (b)(1) (closed vent system and control device other than a flare), the owner or operator shall keep the following records.

(1) A copy of the operating plan.

(2) A record of the measured values of the parameters monitored in accordance with §60.113b(c)(2).

The tanks operated by this facility subject to this subpart have not been equipped with any of the closed vent systems. Therefore, §60.115b(c) does not apply.

(d) After installing a closed vent system and flare to comply with §60.112b, the owner or operator shall meet the following requirements.

(1) A report containing the measurements required by §60.18(f) (1), (2), (3), (4), (5), and (6) shall be furnished to the Administrator as required by §60.8 of the General Provisions. This report shall be submitted within 6 months of the initial start-up date.

(2) Records shall be kept of all periods of operation during which the flare pilot flame is absent.

(3) Semiannual reports of all periods recorded under §60.115b(d)(2) in which the pilot flame was absent shall be furnished to the Administrator.

The tanks operated by this facility subject to this subpart have not been equipped with a closed vent system with a flare. Therefore, §60.115b(d) does not apply.

§ 60.116b.....Monitoring of operations

(a) The owner or operator shall keep copies of all records required by this section, except for the record required by paragraph (b) of this section, for at least 2 years. The record required by paragraph (b) of this section will be kept for the life of the source.

(b) The owner or operator of each storage vessel as specified in §60.110b(a) shall keep readily accessible records showing the dimension of the storage vessel and an analysis showing the capacity of the storage vessel.

(c) Except as provided in paragraphs (f) and (g) of this section, the owner or operator of each storage vessel either with a design capacity greater than or equal to 151 m³ storing a liquid with a maximum true vapor pressure greater than or equal to 3.5 kPa or with a design capacity greater than or equal to 75 m³ but less than 151 m³ storing a liquid with a maximum true vapor pressure greater than or equal to 15.0 kPa shall maintain a record of the VOL stored, the period of storage, and the maximum true vapor pressure of that VOL during the respective storage period.

(d) Except as provided in paragraph (g) of this section, the owner or operator of each storage vessel either with a design capacity greater than or equal to 151 m³ storing a liquid with a maximum true vapor pressure that is normally less than 5.2 kPa or with a design capacity greater than or equal to 75 m³ but less than 151 m³ storing a liquid with a maximum true vapor pressure that is normally less than 27.6 kPa shall notify the Administrator within 30 days when the maximum true vapor pressure of the liquid exceeds the respective maximum true vapor pressure values for each volume range.

(e) Available data on the storage temperature may be used to determine the maximum true vapor pressure as determined below.

(1) For vessels operated above or below ambient temperatures, the maximum true vapor pressure is calculated based upon the highest expected calendar-month average of the storage temperature. For vessels operated at ambient temperatures, the maximum true vapor pressure is calculated based upon the maximum local monthly average ambient temperature as reported by the National Weather Service.

(2) For crude oil or refined petroleum products the vapor pressure may be obtained by the following:

(i) Available data on the Reid vapor pressure and the maximum expected storage temperature based on the highest expected calendar-month average temperature of the stored product may be used to determine the maximum true vapor pressure from nomographs contained in API Bulletin 2517 (incorporated by reference—see §60.17), unless the Administrator specifically requests that the liquid be sampled, the actual storage temperature determined, and the Reid vapor pressure determined from the sample(s).

(ii) The true vapor pressure of each type of crude oil with a Reid vapor pressure less than 13.8 kPa or with physical properties that preclude determination by the recommended method is to be determined from available data and recorded if the estimated maximum true vapor pressure is greater than 3.5 kPa.

(3) For other liquids, the vapor pressure:

(i) May be obtained from standard reference texts, or

(ii) Determined by ASTM D2879-83, 96, or 97 (incorporated by reference—see §60.17); or

(iii) Measured by an appropriate method approved by the Administrator; or

(iv) Calculated by an appropriate method approved by the Administrator.

Tesoro Logistics Operations stores gasoline in tanks that have a storage capacity greater than 151 cubic meters. The facility is subject to the requirements set forth in §60.116b(a) through §60.116b(e). Compliance is assured by Permit Condition 4.11.

(f) The owner or operator of each vessel storing a waste mixture of indeterminate or variable composition shall be subject to the following requirements.

(1) Prior to the initial filling of the vessel, the highest maximum true vapor pressure for the range of anticipated liquid compositions to be stored will be determined using the methods described in paragraph (e) of this section.

(2) For vessels in which the vapor pressure of the anticipated liquid composition is above the cutoff for monitoring but below the cutoff for controls as defined in §60.112b(a), an initial physical test of the vapor pressure is required; and a physical test at least once every 6 months thereafter is required as determined by the following methods:

(i) ASTM D2879-83, 96, or 97 (incorporated by reference—see §60.17); or

(ii) ASTM D323-82 or 94 (incorporated by reference—see §60.17); or

(iii) As measured by an appropriate method as approved by the Administrator.

Tesoro Logistics Operations stores transmix which is a mixture of indeterminate or variable composition. The facility is subject to the requirements of §60.116b(f). Compliance is assured by Permit Condition 4.11.

(g) The owner or operator of each vessel equipped with a closed vent system and control device meeting the specification of §60.112b or with emissions reductions equipment as specified in 40 CFR 65.42(b)(4), (b)(5), (b)(6), or (c) is exempt from the requirements of paragraphs (c) and (d) of this section.

The tanks operated by Tesoro Logistics Operations that are subject to this subpart are not equipped with any of the closed vent systems and as a result §60.116b(g) is not applicable.

§ 60.117b.....Delegation of authority

(a) In delegating implementation and enforcement authority to a State under section 111(c) of the Act, the authorities contained in paragraph (b) of this section shall be retained by the Administrator and not transferred to a State.

(b) Authorities which will not be delegated to States: §§60.111b(f)(4), 60.114b, 60.116b(e)(3)(iii), 60.116b(e)(3)(iv), and 60.116b(f)(2)(iii).

DEQ has not been delegated this subpart.

Because the facility is subject to CFR 63 Subpart R and they operate a vapor combustion control device, the following NSPS requirement applies:

- **40 CFR 60, Subpart XX – Standards of Performance for Bulk Gasoline Terminals**

DEQ has been delegated authority of this subpart.

The applicable requirements of the subpart are highlighted in yellow.

48 FR 37590, Dec. 19, 2003, 40 CFR 60, Subpart XX – NSPS Standards of Performance for Bulk Gasoline Terminals

§ 60.500.....Applicability and designation of affected facility.

(a) The affected facility to which the provisions of this subpart apply is the total of all the loading racks at a bulk gasoline terminal which deliver liquid product into gasoline tank trucks.

(b) Each facility under paragraph (a) of this section, the construction or modification of which is commenced after December 17, 1980, is subject to the provisions of this subpart.

(c) For purposes of this subpart, any replacement of components of an existing facility, described in paragraph (a) of this section, commenced before August 18, 1983 in order to comply with any emission standard adopted by a State or political subdivision thereof will not be considered a reconstruction under the provisions of 40 CFR 60.15.

Tesoro Logistics Operations is subject to this subpart by reference in CFR 63 Subpart R. The facility owns and operates a loading rack at a bulk gasoline terminal, and modification has occurred after December 17, 1980. The facility is subject to §60.500(a) and (b). The vapor combustion unit is not defined as reconstruction or modification to the loading rack. §60.500(c) does not apply.

§ 60.501.....Definitions

The definitions of Subpart XX apply to this facility and no further discussion is required.

§ 60.502.....Standard for Volatile Organic Compound (VOC) emissions from bulk gasoline terminals.

On and after the date on which §60.8(a) requires a performance test to be completed, the owner or operator of each bulk gasoline terminal containing an affected facility shall comply with the requirements of this section.

(a) Each affected facility shall be equipped with a vapor collection system designed to collect the total organic compounds vapors displaced from tank trucks during product loading.

(b) The emissions to the atmosphere from the vapor collection system due to the loading of liquid product into gasoline tank trucks are not to exceed 35 milligrams of total organic compounds per liter of gasoline loaded, except as noted in paragraph (c) of this section.

(c) For each affected facility equipped with an existing vapor processing system, the emissions to the atmosphere from the vapor collection system due to the loading of liquid product into gasoline tank trucks are not to exceed 80 milligrams of total organic compounds per liter of gasoline loaded.

Tesoro Logistics Operations is not directly subject to this NSPS and is only subject to the referenced parts. The reference in CFR 63 Subpart R excludes § 60.502(b) and § 60.502(c). Compliance is assured by Permit Condition 3.8.

(d) Each vapor collection system shall be designed to prevent any total organic compounds vapors collected at one loading rack from passing to another loading rack.

(e) Loadings of liquid product into gasoline tank trucks shall be limited to vapor-tight gasoline tank trucks using the following procedures:

(1) The owner or operator shall obtain the vapor tightness documentation described in §60.505(b) for each gasoline tank truck which is to be loaded at the affected facility.

(2) The owner or operator shall require the tank identification number to be recorded as each gasoline tank truck is loaded at the affected facility.

(3)(i) The owner or operator shall cross-check each tank identification number obtained in paragraph (e)(2) of this section with the file of tank vapor tightness documentation within 2 weeks after the corresponding tank is loaded, unless either of the following conditions is maintained:

(A) If less than an average of one gasoline tank truck per month over the last 26 weeks is loaded without vapor tightness documentation then the documentation cross-check shall be performed each quarter; or

(B) If less than an average of one gasoline tank truck per month over the last 52 weeks is loaded without vapor tightness documentation then the documentation cross-check shall be performed semiannually.

(ii) If either the quarterly or semiannual cross-check provided in paragraphs (e)(3)(i) (A) through (B) of this section reveals that these conditions were not maintained, the source must return to biweekly monitoring until such time as these conditions are again met.

(4) The terminal owner or operator shall notify the owner or operator of each non-vapor-tight gasoline tank truck loaded at the affected facility within 1 week of the documentation cross-check in paragraph (e)(3) of this section.

(5) The terminal owner or operator shall take steps assuring that the nonvapor-tight gasoline tank truck will not be reloaded at the affected facility until vapor tightness documentation for that tank is obtained.

(6) Alternate procedures to those described in paragraphs (e)(1) through (5) of this section for limiting gasoline tank truck loadings may be used upon application to, and approval by, the Administrator.

(f) The owner or operator shall act to assure that loadings of gasoline tank trucks at the affected facility are made only into tanks equipped with vapor collection equipment that is compatible with the terminal's vapor collection system.

(g) The owner or operator shall act to assure that the terminal's and the tank truck's vapor collection systems are connected during each loading of a gasoline tank truck at the affected facility. Examples of actions to accomplish this include training drivers in the hookup procedures and posting visible reminder signs at the affected loading racks.

(h) The vapor collection and liquid loading equipment shall be designed and operated to prevent gauge pressure in the delivery tank from exceeding 4,500 pascals (450 mm of water) during product loading. This level is not to be exceeded when measured by the procedures specified in §60.503(d).

(i) No pressure-vacuum vent in the bulk gasoline terminal's vapor collection system shall begin to open at a system pressure less than 4,500 pascals (450 mm of water).

(j) Each calendar month, the vapor collection system, the vapor processing system, and each loading rack handling gasoline shall be inspected during the loading of gasoline tank trucks for total organic compounds liquid or vapor leaks. For purposes of this paragraph, detection methods incorporating sight, sound, or smell are acceptable. Each detection of a leak shall be recorded and the source of the leak repaired within 15 calendar days after it is detected.

Tesoro Logistics Operations is not directly subject to this NSPS and is only subject to the referenced parts. CFR 63 Subpart R excludes §60.502(j), but §60.502(a) through (i) are applicable. As referenced in §63.422(c)(2), §60.502(e)(5) is changed to read as follows:

(2) Section 60.502(e)(5) of this chapter is changed to read: The terminal owner or operator shall take steps assuring that the nonvapor-tight gasoline cargo tank will not be reloaded at the facility until vapor tightness documentation for that gasoline cargo tank is obtained which documents that:

(i) The tank truck or railcar gasoline cargo tank meets the test requirements in §63.425(e), or the railcar gasoline cargo tank meets applicable test requirements in §63.425(i);

(ii) For each gasoline cargo tank failing the test in §63.425 (f) or (g) at the facility, the cargo tank either:

(A) Before repair work is performed on the cargo tank, meets the test requirements in §63.425 (g) or (h), or

(B) After repair work is performed on the cargo tank before or during the tests in §63.425 (g) or (h), subsequently passes the annual certification test described in §63.425(e).

Compliance with these sections is assured by Permit Condition 3.8.

§ 60.503..... Test methods and procedures

(a) In conducting the performance tests required in §60.8, the owner or operator shall use as reference methods and procedures the test methods in appendix A of this part or other methods and procedures as specified in this section, except as provided in §60.8(b). The three-run requirement of §60.8(f) does not apply to this subpart.

(b) Immediately before the performance test required to determine compliance with §60.502 (b), (c), and (h), the owner or operator shall use Method 21 to monitor for leakage of vapor all potential sources in the terminal's vapor collection system equipment while a gasoline tank truck is being loaded. The owner or operator shall repair all leaks with readings of 10,000 ppm (as methane) or greater before conducting the performance test.

(c) The owner or operator shall determine compliance with the standards in §60.502 (b) and (c) as follows:

(1) The performance test shall be 6 hours long during which at least 300,000 liters of gasoline is loaded. If this is not possible, the test may be continued the same day until 300,000 liters of gasoline is loaded or the test may be resumed the next day with another complete 6-hour period. In the latter case, the 300,000-liter criterion need not be met. However, as much as possible, testing should be conducted during the 6-hour period in which the highest throughput normally occurs.

(2) If the vapor processing system is intermittent in operation, the performance test shall begin at a reference vapor holder level and shall end at the same reference point. The test shall include at least two startups and shutdowns of the vapor processor. If this does not occur under automatically controlled operations, the system shall be manually controlled.

(3) The emission rate (E) of total organic compounds shall be computed using the following equation:

$$E = K \sum_{i=1}^n (V_{esi} C_{ei}) / (L 10^6)$$

where:

E = emission rate of total organic compounds, mg/liter of gasoline loaded.

V_{esi} = volume of air-vapor mixture exhausted at each interval "i", scm.

C_{ei} = concentration of total organic compounds at each interval "i", ppm.

L = total volume of gasoline loaded, liters.

n = number of testing intervals.

i = emission testing interval of 5 minutes.

K = density of calibration gas, 1.83×10^6 for propane and 2.41×10^6 for butane, mg/scm.

(4) The performance test shall be conducted in intervals of 5 minutes. For each interval "i", readings from each measurement shall be recorded, and the volume exhausted (V_{esi}) and the corresponding average total organic compounds concentration (C_{ei}) shall be determined. The sampling system response time shall be considered in determining the average total organic compounds concentration corresponding to the volume exhausted.

(5) The following methods shall be used to determine the volume (V_{esi}) air-vapor mixture exhausted at each interval:

(i) Method 2B shall be used for combustion vapor processing systems.

(ii) Method 2A shall be used for all other vapor processing systems.

(6) Method 25A or 25B shall be used for determining the total organic compounds concentration (C_{ei}) at each interval. The calibration gas shall be either propane or butane. The owner or operator may exclude the methane and ethane content in the exhaust vent by any method (e.g., Method 18) approved by the Administrator.

(7) To determine the volume (L) of gasoline dispensed during the performance test period at all loading racks whose vapor emissions are controlled by the processing system being tested, terminal records or readings from gasoline dispensing meters at each loading rack shall be used.

(d) The owner or operator shall determine compliance with the standard in §60.502(h) as follows:

(1) A pressure measurement device (liquid manometer, magnehelic gauge, or equivalent instrument), capable of measuring up to 500 mm of water gauge pressure with ± 2.5 mm of water precision, shall be calibrated and installed on the terminal's vapor collection system at a pressure tap located as close as possible to the connection with the gasoline tank truck.

(2) During the performance test, the pressure shall be recorded every 5 minutes while a gasoline truck is being loaded; the highest instantaneous pressure that occurs during each loading shall also be recorded. Every loading position must be tested at least once during the performance test.

Tesoro Logistics Operations is subject to the test methods and procedures through reference in 40 CFR 63.425(a)(1) to demonstrate compliance with the emissions standards for the loading rack and vapor control system. The facility is exempted from showing compliance with §60.502(b) and (c) by §63.422(a). Therefore, the facility is not subject to the requirements listed in §60.503(c). Compliance is assured by Permit Conditions 3.8 and 3.10.

(e) The performance test requirements of paragraph (c) of this section do not apply to flares defined in §60.501 and meeting the requirements in §60.18(b) through (f). The owner or operator shall demonstrate that the flare and associated vapor collection system is in compliance with the requirements in §§60.18(b) through (f) and 60.503(a), (b), and (d).

Tesoro Logistics Operations does not operate a flare as defined in §60.501 and meeting the requirements of §60.18(b) through (f). The facility is not subject to §60.503(e).

(f) The owner or operator shall use alternative test methods and procedures in accordance with the alternative test method provisions in §60.8(b) for flares that do not meet the requirements in §60.18(b).

Tesoro Logistics Operations may use alternative test methods and procedures for the flare if it does not meet the requirements in §60.18(b). Compliance is assured by Permit Condition 3.10.

§ 60.504.....[Reserved]

§ 60.505.....Reporting and recordkeeping.

(a) The tank truck vapor tightness documentation required under §60.502(e)(1) shall be kept on file at the terminal in a permanent form available for inspection.

(b) The documentation file for each gasoline tank truck shall be updated at least once per year to reflect current test results as determined by Method 27. This documentation shall include, as a minimum, the following information:

(1) Test title: Gasoline Delivery Tank Pressure Test—EPA Reference Method 27.

(2) Tank owner and address.

(3) Tank identification number.

(4) Testing location.

(5) Date of test.

(6) Tester name and signature.

(7) Witnessing inspector, if any: Name, signature, and affiliation.

(8) Test results: Actual pressure change in 5 minutes, mm of water (average for 2 runs).

(c) A record of each monthly leak inspection required under §60.502(j) shall be kept on file at the terminal for at least 2 years. Inspection records shall include, as a minimum, the following information:

(1) Date of inspection.

(2) Findings (may indicate no leaks discovered; or location, nature, and severity of each leak).

(3) Leak determination method.

(4) Corrective action (date each leak repaired; reasons for any repair interval in excess of 15 days).

(5) Inspector name and signature.

(d) The terminal owner or operator shall keep documentation of all notifications required under §60.502(e)(4) on file at the terminal for at least 2 years.

(e) As an alternative to keeping records at the terminal of each gasoline cargo tank test result as required in paragraphs (a), (c), and (d) of this section, an owner or operator may comply with the requirements in either paragraph (e)(1) or (2) of this section.

(1) An electronic copy of each record is instantly available at the terminal.

(i) The copy of each record in paragraph (e)(1) of this section is an exact duplicate image of the original paper record with certifying signatures.

(ii) The permitting authority is notified in writing that each terminal using this alternative is in compliance with paragraph (e)(1) of this section.

(2) For facilities that utilize a terminal automation system to prevent gasoline cargo tanks that do not have valid cargo tank vapor tightness documentation from loading (*e.g.*, via a card lock-out system), a copy of the documentation is made available (*e.g.*, via facsimile) for inspection by permitting authority representatives during the course of a site visit, or within a mutually agreeable time frame.

(i) The copy of each record in paragraph (e)(2) of this section is an exact duplicate image of the original paper record with certifying signatures.

(ii) The permitting authority is notified in writing that each terminal using this alternative is in compliance with paragraph (e)(2) of this section.

(f) The owner or operator of an affected facility shall keep records of all replacements or additions of components performed on an existing vapor processing system for at least 3 years.

Tesoro Logistics Operations is not directly subject to this NSPS and 40 CFR 63 Subpart R does not reference §60.505. However, the requirements of §60.502(e) require §60.505(b) to be followed to show compliance with the vapor tightness documentation. This is assured by Permit Condition 3.8.

§ 60.506.....Reconstruction.

For purposes of this subpart:

(a) The cost of the following frequently replaced components of the affected facility shall not be considered in calculating either the “fixed capital cost of the new components” or the “fixed capital costs that would be required to construct a comparable entirely new facility” under §60.15: pump seals, loading arm gaskets and swivels, coupler gaskets, overfill sensor couplers and cables, flexible vapor hoses, and grounding cables and connectors.

(b) Under §60.15, the “fixed capital cost of the new components” includes the fixed capital cost of all depreciable components (except components specified in §60.506(a)) which are or will be replaced pursuant to all continuous programs of component replacement which are commenced within any 2-year period following December 17, 1980. For purposes of this paragraph, “commenced” means that an owner or operator has undertaken a continuous program of component replacement or that an owner or operator has entered into a contractual obligation to undertake and complete, within a reasonable time, a continuous program of component replacement.

The definitions of reconstruction in §60.506 are applicable to the facility as they are subject to 40 CFR 60 Subpart XX.

NESHAP Applicability (40 CFR 61)

The facility is not subject to any NESHAP requirements in 40 CFR 61.

MACT Applicability (40 CFR 63)

Because the facility is a bulk gasoline distribution terminal the following MACT requirement may apply. Pursuant an EPA decision on September 9, 2000 which indicated that the Pocatello Terminal is subject to the requirements under NESHAP Subpart R via EPA’s “Once In, Always In” policy with respect to NESHAP. The Facility is not currently a major source of HAP which would exempt them from this subpart, however the EPA decision controls.

- **40 CFR 63, Subpart R – National Emission Standards for Gasoline Distribution Facilities (Bulk Gasoline Terminals and Pipeline Breakout Stations)**

DEQ has been delegated authority of this subpart.

The applicable requirements of the subpart are highlighted in yellow.

59 FR 64318, Dec. 14, 1994, 40 CFR 63, Subpart R – National Emission Standards for Gasoline Distribution Facilities (Bulk Gasoline Terminals and Pipeline Breakout Stations)

§ 63.420.....Applicability

(a) The affected source to which the provisions of this subpart apply is each bulk gasoline terminal, except those bulk gasoline terminals:

(1) For which the owner or operator has documented and recorded to the Administrator's satisfaction that the result, ET, of the following equation is less than 1, and complies with requirements in paragraphs (c), (d), (e), and (f) of this section:

$$ET = CF[0.59(TF)(1-CE) + 0.17 (TE) + 0.08(TES) + 0.038(TI) + 8.5 \times 10^{-6}(C) + KQ] + 0.04(OE)$$

where:

ET = emissions screening factor for bulk gasoline terminals;

CF = 0.161 for bulk gasoline terminals and pipeline breakout stations that do not handle any reformulated or oxygenated gasoline containing 7.6 percent by volume or greater methyl tert-butyl ether (MTBE), OR

CF = 1.0 for bulk gasoline terminals and pipeline breakout stations that handle reformulated or oxygenated gasoline containing 7.6 percent by volume or greater MTBE;

CE = control efficiency limitation on potential to emit for the vapor processing system used to control emissions from fixed-roof gasoline storage vessels [value should be added in decimal form (percent divided by 100)];

TF = total number of fixed-roof gasoline storage vessels without an internal floating roof;

TE = total number of external floating roof gasoline storage vessels with only primary seals;

TES = total number of external floating roof gasoline storage vessels with primary and secondary seals;

TI = total number of fixed-roof gasoline storage vessels with an internal floating roof;

C = number of valves, pumps, connectors, loading arm valves, and open-ended lines in gasoline service;

Q = gasoline throughput limitation on potential to emit or gasoline throughput limit in compliance with paragraphs (c), (d), and (f) of this section (liters/day);

K = 4.52×10^{-6} for bulk gasoline terminals with uncontrolled loading racks (no vapor collection and processing systems), OR

K = $(4.5 \times 10^{-9})(EF + L)$ for bulk gasoline terminals with controlled loading racks (loading racks that have vapor collection and processing systems installed on the emission stream);

EF = emission rate limitation on potential to emit for the gasoline cargo tank loading rack vapor processor outlet emissions (mg of total organic compounds per liter of gasoline loaded);

OE = other HAP emissions screening factor for bulk gasoline terminals or pipeline breakout stations (tons per year). OE equals the total HAP from other emission sources not specified in parameters in the equations for ET or EP. If the value of $0.04(OE)$ is greater than 5 percent of either ET or EP, then paragraphs (a)(1) and (b)(1) of this section shall not be used to determine applicability;

L = 13 mg/l for gasoline cargo tanks meeting the requirement to satisfy the test criteria for a vapor-tight gasoline tank truck in §60.501 of this chapter, OR

L = 304 mg/l for gasoline cargo tanks not meeting the requirement to satisfy the test criteria for a vapor-tight gasoline tank truck in §60.501 of this chapter; or

(2) For which the owner or operator has documented and recorded to the Administrator's satisfaction that the facility is not a major source, or is not located within a contiguous area and under common control of a facility that is a major source, as defined in §63.2 of subpart A of this part.

(b) The affected source to which the provisions of this subpart apply is each pipeline breakout station, except those pipeline breakout stations:

(1) For which the owner or operator has documented and recorded to the Administrator's satisfaction that the result, EP, of the following equation is less than 1, and complies with requirements in paragraphs (c), (d), (e), and (f) of this section:

$$EP = CF [6.7(TF)(1-CE) + 0.21(TE) + 0.093(TES) + 0.1(TI) + 5.31 \times 10^{-6}(C) + 0.04(OE)];$$

where:

EP = emissions screening factor for pipeline breakout stations,

and the definitions for CF, TF, CE, TE, TES, TI, C, and OE are the same as provided in paragraph (a)(1) of this section; or

(2) For which the owner or operator has documented and recorded to the Administrator's satisfaction that the facility is not a major source, or is not located within a contiguous area and under common control of a facility that is a major source, as defined in §63.2 of subpart A of this part.

(c) A facility for which the results, ET or EP, of the calculation in paragraph (a)(1) or (b)(1) of this section has been documented and is less than 1.0 but greater than or equal to 0.50, is exempt from the requirements of this subpart, except that the owner or operator shall:

(1) Operate the facility such that none of the facility parameters used to calculate results under paragraph (a)(1) or (b)(1) of this section, and approved by the Administrator, is exceeded in any rolling 30-day period; and

(2) Maintain records and provide reports in accordance with the provisions of §63.428(i).

(d) A facility for which the results, ET or EP, of the calculation in paragraph (a)(1) or (b)(1) of this section has been documented and is less than 0.50, is exempt from the requirements of this subpart, except that the owner or operator shall:

(1) Operate the facility such that none of the facility parameters used to calculate results under paragraph (a)(1) or (b)(1) of this section is exceeded in any rolling 30-day period; and

(2) Maintain records and provide reports in accordance with the provisions of §63.428(j).

(e) The provisions of paragraphs (a)(1) and (b)(1) of this section shall not be used to determine applicability to bulk gasoline terminals or pipeline breakout stations that are either:

(1) Located within a contiguous area and under common control with another bulk gasoline terminal or pipeline breakout station, or

(2) Located within a contiguous area and under common control with other sources not specified in paragraphs (a)(1) or (b)(1) of this section, that emit or have the potential to emit a hazardous air pollutant.

(f) Upon request by the Administrator, the owner or operator of a bulk gasoline terminal or pipeline breakout station subject to the provisions of any paragraphs in this section including, but not limited to, the parameters and assumptions used in the applicable equation in paragraph (a)(1) or (b)(1) of this section, shall demonstrate compliance with those paragraphs.

(g) Each owner or operator of a bulk gasoline terminal or pipeline breakout station subject to the provisions of this subpart that is also subject to applicable provisions of 40 CFR part 60, subpart Kb or XX of this chapter shall comply only with the provisions in each subpart that contain the most stringent control requirements for that facility.

(h) Each owner or operator of an affected source bulk gasoline terminal or pipeline breakout station is subject to the provisions of 40 CFR part 63, subpart A—General Provisions, as indicated in Table 1.

(i) A bulk gasoline terminal or pipeline breakout station with a Standard Industrial Classification code 2911 located within a contiguous area and under common control with a refinery complying with subpart CC, §§63.646, 63.648, 63.649, and 63.650 is not subject to subpart R standards, except as specified in subpart CC, §63.650.

(j) *Rules stayed for reconsideration.* Notwithstanding any other provision of this subpart, the December 14, 1995 compliance date for existing facilities in §63.424(e) and §63.428(a), (i)(1), and (j)(1) of this subpart is stayed from December 8, 1995, to March 7, 1996.

Tesoro Logistics Operations is subject to §63.420 as a result of an EPA determination on February 4, 2000 in accordance with the 1995 EPA memorandum from John S. Seitz titled “Potential to Emit for MACT Standards – Guidance on Timing Issues”.

§ 63.421.....Definitions

The definitions of Subpart R apply to this facility and no further discussion is required.

§ 63.422.....Standards: Loading racks

(a) Each owner or operator of loading racks at a bulk gasoline terminal subject to the provisions of this subpart shall comply with the requirements in §60.502 of this chapter except for paragraphs (b), (c), and (j) of that section. For purposes of this section, the term “affected facility” used in §60.502 of this chapter means the loading racks that load gasoline cargo tanks at the bulk gasoline terminals subject to the provisions of this subpart.

Tesoro Logistics Operations operates a loading rack at a bulk gasoline terminal and is subject to §63.422 (a). This is assured by Permit Condition 3.8.

(b) Emissions to the atmosphere from the vapor collection and processing systems due to the loading of gasoline cargo tanks shall not exceed 10 milligrams of total organic compounds per liter of gasoline loaded.

Tesoro Logistics Operations operates a loading rack with a vapor collection unit at a bulk gasoline terminal and is subject to §63.422 (b). This is assured by Permit Condition 3.8.

(c) Each owner or operator of a bulk gasoline terminal subject to the provisions of this subpart shall comply with §60.502(e) of this chapter as follows:

(1) For the purposes of this section, the term “tank truck” as used in §60.502(e) of this chapter means “cargo tank.”

(2) Section 60.502(e)(5) of this chapter is changed to read: The terminal owner or operator shall take steps assuring that the nonvapor-tight gasoline cargo tank will not be reloaded at the facility until vapor tightness documentation for that gasoline cargo tank is obtained which documents that:

(i) The tank truck or railcar gasoline cargo tank meets the test requirements in §63.425(e), or the railcar gasoline cargo tank meets applicable test requirements in §63.425(i);

(ii) For each gasoline cargo tank failing the test in §63.425 (f) or (g) at the facility, the cargo tank either:

(A) Before repair work is performed on the cargo tank, meets the test requirements in §63.425 (g) or (h), or

(B) After repair work is performed on the cargo tank before or during the tests in §63.425 (g) or (h), subsequently passes the annual certification test described in §63.425(e).

As shown in the NSPS applicability analysis Tesoro Logistics Operations is subject to §60.502 through reference in §63.422(c) and §60.502(e) has been changed to read as outlined above. This is assured by Permit Condition 3.8.

(d) Each owner or operator shall meet the requirements in all paragraphs of this section as expeditiously as practicable, but no later than December 15, 1997, at existing facilities and upon startup for new facilities.

Tesoro Logistics Operations is required to comply with §63.422(d) because it was constructed before December 15, 1997. Since compliance has been shown in previous permits, this condition is no longer applicable.

(e) As an alternative to 40 CFR 60.502(h) and (i) as specified in paragraph (a) of this section, the owner or operator may comply with paragraphs (e)(1) and (2) of this section.

(1) The owner or operator shall design and operate the vapor processing system, vapor collection system, and liquid loading equipment to prevent gauge pressure in the railcar gasoline cargo tank from exceeding the applicable test limits in §63.425(e) and (i) during product loading. This level is not to be exceeded when measured by the procedures specified in 40 CFR 60.503(d) of this chapter.

(2) No pressure-vacuum vent in the bulk gasoline terminal's vapor processing system or vapor collection system may begin to open at a system pressure less than the applicable test limits in §63.425(e) or (i).

Tesoro Logistics Operations is subject to §60.502(h) and (i) and §63.422 and has the option to comply with §63.422(e) as an alternative to §60.502(h) and (i). This is assured by Permit Condition 3.8.

§ 63.423.....Standards: Storage vessels.

(a) Each owner or operator of a bulk gasoline terminal or pipeline breakout station subject to the provisions of this subpart shall equip each gasoline storage vessel with a design capacity greater than or equal to 75 m³ according to the requirements in §60.112b(a) (1) through (4) of this chapter, except for the requirements in §§60.112b(a)(1) (iv) through (ix) and 60.112b(a)(2)(ii) of this chapter.

As discussed in the NSPS applicability Tesoro Logistics Operations is subject to the requirements outlined in 40 CFR 60 Subpart Kb for all gasoline storage tanks. This is assured by Permit Condition 4.7.

(b) Each owner or operator shall equip each gasoline external floating roof storage vessel with a design capacity greater than or equal to 75 m³ according to the requirements in §60.112b(a)(2)(ii) of this chapter if such storage vessel does not currently meet the requirements in paragraph (a) of this section.

Tesoro Logistics Operations has installed internal floating roofs for all storage tanks subject to 40 CFR 60 Subpart Kb, however if tanks are not equipped with internal floating roofs the facility must comply with §63.423(b). This is assured by Permit Condition 4.7.

(c) Each gasoline storage vessel at existing bulk gasoline terminals and pipeline breakout stations shall be in compliance with the requirements in paragraphs (a) and (b) of this section as expeditiously as practicable, but no later than December 15, 1997. At new bulk gasoline terminals and pipeline breakout stations, compliance shall be achieved upon startup.

Tesoro Logistics Operations is required to comply with §63.423(c) because it was constructed before December 15, 1997. Since compliance has been shown in previous permits, this condition is no longer applicable.

§63.424.....Standards: Equipment Leaks.

(a) Each owner or operator of a bulk gasoline terminal or pipeline breakout station subject to the provisions of this subpart shall perform a monthly leak inspection of all equipment in gasoline service. For this inspection, detection methods incorporating sight, sound, and smell are acceptable. Each piece of equipment shall be inspected during the loading of a gasoline cargo tank.

(b) A log book shall be used and shall be signed by the owner or operator at the completion of each inspection. A section of the log shall contain a list, summary description, or diagram(s) showing the location of all equipment in gasoline service at the facility.

(c) Each detection of a liquid or vapor leak shall be recorded in the log book. When a leak is detected, an initial attempt at repair shall be made as soon as practicable, but no later than 5 calendar days after the leak is detected. Repair or replacement of leaking equipment shall be completed within 15 calendar days after detection of each leak, except as provided in paragraph (d) of this section.

(d) Delay of repair of leaking equipment will be allowed upon a demonstration to the Administrator that repair within 15 days is not feasible. The owner or operator shall provide the reason(s) a delay is needed and the date by which each repair is expected to be completed.

(e) Initial compliance with the requirements in paragraphs (a) through (d) of this section shall be achieved by existing sources as expeditiously as practicable, but no later than December 15, 1997. For new sources, initial compliance shall be achieved upon startup.

(f) As an alternative to compliance with the provisions in paragraphs (a) through (d) of this section, owners or operators may implement an instrument leak monitoring program that has been demonstrated to the Administrator as at least equivalent.

(g) Owners and operators shall not allow gasoline to be handled in a manner that would result in vapor releases to the atmosphere for extended periods of time. Measures to be taken include, but are not limited to, the following:

- (1) Minimize gasoline spills;
- (2) Clean up spills as expeditiously as practicable;
- (3) Cover all open gasoline containers with a gasketed seal when not in use;

(4) Minimize gasoline sent to open waste collection systems that collect and transport gasoline to reclamation and recycling devices, such as oil/water separators.

Tesoro Logistics Operations is required to comply with §63.424 because the facility is subject to this subpart as shown in §63.420. Compliance with §63.424(e) has been shown in previously issued Tier II Operating permits. This is assured by Permit Condition 3.9.

§ 63.425..... Test methods and procedures.

(a) Each owner or operator subject to the emission standard in §63.422(b) or 40 CFR 60.112b(a)(3)(ii) shall comply with the requirements in paragraphs (a)(1) and (2) of this section.

(1) Conduct a performance test on the vapor processing and collection systems according to either paragraph (a)(1)(i) or (ii) of this section.

(i) Use the test methods and procedures in 40 CFR 60.503 of this chapter, except a reading of 500 ppm shall be used to determine the level of leaks to be repaired under 40 CFR 60.503(b), or

(ii) Use alternative test methods and procedures in accordance with the alternative test method requirements in §63.7(f).

(2) The performance test requirements of 40 CFR 60.503(c) do not apply to flares defined in §63.421 and meeting the flare requirements in §63.11(b). The owner or operator shall demonstrate that the flare and associated vapor collection system is in compliance with the requirements in §63.11(b) and 40 CFR 60.503(a), (b), and (d), respectively.

Tesoro Logistics Operations is subject to §63.422(b) and is therefore required to comply with §63.425(a)(1). The Vapor Combustion Unit does not fit the definition of flare as defined by §63.421. This is assured by Permit Condition 3.10.

(b) For each performance test conducted under paragraph (a) of this section, the owner or operator shall determine a monitored operating parameter value for the vapor processing system using the following procedure:

(1) During the performance test, continuously record the operating parameter under §63.427(a);

(2) Determine an operating parameter value based on the parameter data monitored during the performance test, supplemented by engineering assessments and the manufacturer's recommendations; and

(3) Provide for the Administrator's approval the rationale for the selected operating parameter value, and monitoring frequency and averaging time, including data and calculations used to develop the value and a description of why the value, monitoring frequency, and averaging time demonstrate continuous compliance with the emission standard in §63.422(b) or §60.112b(a)(3)(ii) of this chapter.

Tesoro Logistics Operations operates a Vapor Combustion Unit and therefore the performance tests conducted are subject to §63.425(b). This is assured by Permit Condition 3.10.

(c) For performance tests performed after the initial test, the owner or operator shall document the reasons for any change in the operating parameter value since the previous performance test.

Tesoro Logistics Operations operates a Vapor Combustion Unit and therefore the performance tests conducted are subject to §63.425(c). This is assured by Permit Condition 3.10.

(d) The owner or operator of each gasoline storage vessel subject to the provisions of §63.423 shall comply with §60.113b of this chapter. If a closed vent system and control device are used, as specified in §60.112b(a)(3) of this chapter, to comply with the requirements in §63.423, the owner or operator shall also comply with the requirements in paragraph (b) of this section.

Tesoro Logistics Operations is subject to the provisions of §63.423 as shown above and is subject to §63.425(d). This is assured by Permit Condition 4.9.

(e) *Annual certification test.* The annual certification test for gasoline cargo tanks shall consist of the following test methods and procedures:

(1) Method 27, appendix A, 40 CFR part 60. Conduct the test using a time period (t) for the pressure and vacuum tests of 5 minutes. The initial pressure (P_i) for the pressure test shall be 460 mm H₂ O (18 in. H₂ O), gauge. The initial vacuum (V_i) for the vacuum test shall be 150 mm H₂ O (6 in. H₂ O), gauge. The maximum allowable pressure and vacuum changes (Δ p, Δ v) are as shown in the second column of Table 2 of this paragraph.

1. TABLE 2—ALLOWABLE CARGO TANK TEST PRESSURE OR VACUUM CHANGE

Cargo tank or compartment capacity, liters (gal)	Annual certification-allowable pressure or vacuum change (Δ p, Δ v) in 5 minutes, mm H ₂ O (in. H ₂ O)	Allowable pressure change (Δ p) in 5 minutes at any time, mm H ₂ O (in. H ₂ O)
9,464 or more (2,500 or more)	25 (1.0)	64 (2.5)
9,463 to 5,678 (2,499 to 1,500)	38 (1.5)	76 (3.0)
5,679 to 3,785 (1,499 to 1,000)	51 (2.0)	89 (3.5)
3,782 or less (999 or less)	64 (2.5)	102 (4.0)

(2) Pressure test of the cargo tank's internal vapor valve as follows:

- (i) After completing the tests under paragraph (e)(1) of this section, use the procedures in Method 27 to repressurize the tank to 460 mm H₂ O (18 in. H₂ O), gauge. Close the tank's internal vapor valve(s), thereby isolating the vapor return line and manifold from the tank.
- (ii) Relieve the pressure in the vapor return line to atmospheric pressure, then reseal the line. After 5 minutes, record the gauge pressure in the vapor return line and manifold. The maximum allowable 5-minute pressure increase is 130 mm H₂ O (5 in. H₂ O).

Tesoro Logistics Operations loads gasoline cargo tanks and is subject to the annual certification test as specified in §63.425(e). This is assured by Permit Condition 3.12.

(f) *Leak detection test.* The leak detection test shall be performed using Method 21, appendix A, 40 CFR part 60, except omit section 4.3.2 of Method 21. A vapor-tight gasoline cargo tank shall have no leaks at any time when tested according to the procedures in this paragraph.

- (1) The leak definition shall be 21,000 ppm as propane. Use propane to calibrate the instrument, setting the span at the leak definition. The response time to 90 percent of the final stable reading shall be less than 8 seconds for the detector with the sampling line and probe attached.
- (2) In addition to the procedures in Method 21, include the following procedures:
 - (i) Perform the test on each compartment during loading of that compartment or while the compartment is still under pressure.
 - (ii) To eliminate a positive instrument drift, the dwell time for each leak detection shall not exceed two times the instrument response time. Purge the instrument with ambient air between each leak detection. The duration of the purge shall be in excess of two instrument response times.
 - (iii) Attempt to block the wind from the area being monitored. Record the highest detector reading and location for each leak.

Tesoro Logistics Operations loads gasoline cargo tanks and is subject to the leak detection test §63.425(f). This is assured by Permit Condition 3.12.

(g) *Nitrogen pressure decay field test.* For those cargo tanks with manifolded product lines, this test procedure shall be conducted on each compartment.

(1) Record the cargo tank capacity. Upon completion of the loading operation, record the total volume loaded. Seal the cargo tank vapor collection system at the vapor coupler. The sealing apparatus shall have a pressure tap. Open the internal vapor valve(s) of the cargo tank and record the initial headspace pressure. Reduce or increase, as necessary, the initial headspace pressure to 460 mm H₂ O (18.0 in. H₂ O), gauge by releasing pressure or by adding commercial grade nitrogen gas from a high pressure cylinder capable of maintaining a pressure of 2,000 psig.

(i) The cylinder shall be equipped with a compatible two-stage regulator with a relief valve and a flow control metering valve. The flow rate of the nitrogen shall be no less than 2 cfm. The maximum allowable time to pressurize cargo tanks with headspace volumes of 1,000 gallons or less to the appropriate pressure is 4 minutes. For cargo tanks with a headspace of greater than 1,000 gallons, use as a maximum allowable time to pressurize 4 minutes or the result from the equation below, whichever is greater.

$$T = V_h \times 0.004$$

where:

T = maximum allowable time to pressurize the cargo tank, min;

V_h = cargo tank headspace volume during testing, gal.

(2) It is recommended that after the cargo tank headspace pressure reaches approximately 460 mm H₂ O (18 in. H₂O), gauge, a fine adjust valve be used to adjust the headspace pressure to 460 mm H₂ O (18.0 in. H₂ O), gauge for the next 30 ±5 seconds.

(3) Reseal the cargo tank vapor collection system and record the headspace pressure after 1 minute. The measured headspace pressure after 1 minute shall be greater than the minimum allowable final headspace pressure (P_F) as calculated from the following equation:

$$P_F = 18 \left(\frac{(18 - N)}{18} \right)^{\left(\frac{V_s}{4V_h} \right)}$$

where:

(P_F) = minimum allowable final headspace pressure, in. H₂ O, gauge;

V_s = total cargo tank shell capacity, gal;

V_h = cargo tank headspace volume after loading, gal;

18.0 = initial pressure at start of test, in. H₂ O, gauge;

N = 5-minute continuous performance standard at any time from the third column of Table 2 of §63.425(e)(i), inches H₂ O.

(4) Conduct the internal vapor valve portion of this test by repressurizing the cargo tank headspace with nitrogen to 460 mm H₂ O (18 in. H₂ O), gauge. Close the internal vapor valve(s), wait for 30 ±5 seconds, then relieve the pressure downstream of the vapor valve in the vapor collection system to atmospheric pressure. Wait 15 seconds, then reseal the vapor collection system. Measure and record the pressure every minute for 5 minutes. Within 5 seconds of the pressure measurement at the end of 5 minutes, open the vapor valve and record the headspace pressure as the “final pressure.”

(5) If the decrease in pressure in the vapor collection system is less than at least one of the interval pressure change values in Table 3 of this paragraph, or if the final pressure is equal to or greater than 20 percent of the 1-minute final headspace pressure determined in the test in paragraph (g)(3) of this section, then the cargo tank is considered to be a vapor-tight gasoline cargo tank.

2. TABLE 3—PRESSURE CHANGE FOR INTERNAL VAPOR VALVE TEST

Time interval	Interval pressure change, mm H₂ O (in. H₂ O)
After 1 minute	28 (1.1)
After 2 minutes	56 (2.2)
After 3 minutes	84 (3.3)
After 4 minutes	112 (4.4)
After 5 minutes	140 (5.5)

Tesoro Logistics Operations loads cargo tanks with manifolded product lines and is subject to the nitrogen pressure decay field test as described in §63.425(g). This is assured by Permit Condition 3.12.

(h) *Continuous performance pressure decay test.* The continuous performance pressure decay test shall be performed using Method 27, appendix A, 40 CFR Part 60. Conduct only the positive pressure test using a time period (t) of 5 minutes. The initial pressure (P_i) shall be 460 mm H₂ O (18 in. H₂ O), gauge. The maximum allowable 5-minute pressure change (Δ p) which shall be met at any time is shown in the third column of Table 2 of §63.425(e)(1).

Tesoro Logistics Operations loads gasoline cargo tanks and is subject to the continuous performance pressure decay test as described in §63.425(h). This is assured by Permit Condition 3.12.

(i) *Railcar bubble leak test procedures.* As an alternative to paragraph (e) of this section for annual certification leakage testing of gasoline cargo tanks, the owner or operator may comply with paragraphs (i)(1) and (2) of this section for railcar gasoline cargo tanks, provided the railcar tank meets the requirement in paragraph (i)(3) of this section.

(1) Comply with the requirements of 49 CFR 173.31(d), 179.7, 180.509, and 180.511 for the testing of railcar gasoline cargo tanks.

(2) The leakage pressure test procedure required under 49 CFR 180.509(j) and used to show no indication of leakage under 49 CFR 180.511(f) shall be ASTM E 515-95 (incorporated by reference, see §63.14), BS EN 1593:1999 (incorporated by reference, see §63.14), or another bubble leak test procedure meeting the requirements in 49 CFR 179.7, 180.505, and 180.509.

(3) The alternative requirements in this paragraph (i) may not be used for any railcar gasoline cargo tank that collects gasoline vapors from a vapor balance system permitted under or required by a Federal, State, local, or tribal agency. A vapor balance system is a piping and collection system designed to collect gasoline vapors displaced from a storage vessel, barge, or other container being loaded, and routes the displaced gasoline vapors into the railcar gasoline cargo tank from which liquid gasoline is being unloaded.

Tesoro Logistics Operations does not load railcar gasoline cargo tanks and is not subject to the requirements of §63.425(i).

§ 63.426.....Alternative means of emission limitation.

For determining the acceptability of alternative means of emission limitation for storage vessels under §63.423, the provisions of §60.114b of this chapter apply.

Tesoro Logistics Operations has the option to use alternative means of emissions so long as they adhere to §63.423 and §60.114b. This is assured by Permit Condition 4.10.

§ 63.427..... Continuous monitoring.

(a) Each owner or operator of a bulk gasoline terminal subject to the provisions of this subpart shall install, calibrate, certify, operate, and maintain, according to the manufacturer's specifications, a continuous monitoring system (CMS) as specified in paragraph (a)(1), (a)(2), (a)(3), or (a)(4) of this section, except as allowed in paragraph (a)(5) of this section.

(1) Where a carbon adsorption system is used, a continuous emission monitoring system (CEMS) capable of measuring organic compound concentration shall be installed in the exhaust air stream.

(2) Where a refrigeration condenser system is used, a continuous parameter monitoring system (CPMS) capable of measuring temperature shall be installed immediately downstream from the outlet to the condenser section. Alternatively, a CEMS capable of measuring organic compound concentration may be installed in the exhaust air stream.

(3) Where a thermal oxidation system other than a flare is used, a CPMS capable of measuring temperature must be installed in the firebox or in the ductwork immediately downstream from the firebox in a position before any substantial heat exchange occurs.

(4) Where a flare meeting the requirements in §63.11(b) is used, a heat-sensing device, such as an ultraviolet beam sensor or a thermocouple, must be installed in proximity to the pilot light to indicate the presence of a flame.

(5) Monitoring an alternative operating parameter or a parameter of a vapor processing system other than those listed in this paragraph will be allowed upon demonstrating to the Administrator's satisfaction that the alternative parameter demonstrates continuous compliance with the emission standard in §63.422(b) or §60.112b(a)(3)(ii) of this chapter.

Tesoro Logistics Operations owns and operates a bulk gasoline terminal and is subject to §63.427(a). Tesoro has not installed a carbon adsorption system, a refrigeration condenser system, or a flare meeting the requirements of §63.11(b) therefore §63.427(a)(1), §63.427(a)(2), and §63.427(a)(4) are not applicable. The facility does operate a thermal oxidation system and is subject to §63.427(a)(3). The facility also has the opportunity to monitor an alternative operating parameter if they so choose and are subject to §63.427(a)(5). This is assured by Permit Condition 3.11.

(b) Each owner or operator of a bulk gasoline terminal subject to the provisions of this subpart shall operate the vapor processing system in a manner not to exceed the operating parameter value for the parameter described in paragraphs (a)(1) and (a)(2) of this section, or to go below the operating parameter value for the parameter described in paragraph (a)(3) of this section, and established using the procedures in §63.425(b). In cases where an alternative parameter pursuant to paragraph (a)(5) of this section is approved, each owner or operator shall operate the vapor processing system in a manner not to exceed or not to go below, as appropriate, the alternative operating parameter value. Operation of the vapor processing system in a manner exceeding or going below the operating parameter value, as specified above, shall constitute a violation of the emission standard in §63.422(b).

Tesoro Logistics Operations owns and operates a bulk gasoline terminal that is subject to this subpart and is subject to the requirements listed in §63.427(b). This is assured by Permit Condition 3.11.

(c) Each owner or operator of gasoline storage vessels subject to the provisions of §63.423 shall comply with the monitoring requirements in §60.116b of this chapter, except records shall be kept for at least 5 years. If a closed vent system and control device are used, as specified in §60.112b(a)(3) of this chapter, to comply with the requirements in §63.423, the owner or operator shall also comply with the requirements in paragraph (a) of this section.

Tesoro Logistics Operations owns and operates storage vessels subject to § 63.423 and is subject to the requirements listed in § 60.116b (outlined above under NSPS applicability) with the stipulation that records must be kept for at least 5 years. This is assured by Permit Condition 4.11.

§ 63.428..... Reporting and recordkeeping.

(a) The initial notifications required for existing affected sources under §63.9(b)(2) shall be submitted by 1 year after an affected source becomes subject to the provisions of this subpart or by December 16, 1996, whichever is later. Affected sources that are major sources on December 16, 1996 and plan to be area sources by December 15, 1997 shall include in this notification a brief, non-binding description of and schedule for the action(s) that are planned to achieve area source status.

Tesoro Logistics Operations has already filed all initial notifications in previous permits. The initial notification as outlined in §63.428(a) are not applicable because they have been shown to be completed in previously issued Tier II operating permits.

(b) Each owner or operator of a bulk gasoline terminal subject to the provisions of this subpart shall keep records of the test results for each gasoline cargo tank loading at the facility as follows:

(1) Annual certification testing performed under §63.425(e) and railcar bubble leak testing performed under §63.425(i); and

(2) Continuous performance testing performed at any time at that facility under §63.425 (f), (g), and (h).

(3) The documentation file shall be kept up-to-date for each gasoline cargo tank loading at the facility. The documentation for each test shall include, as a minimum, the following information:

(i) Name of test: Annual Certification Test—Method 27 (§63.425(e)(1)); Annual Certification Test—Internal Vapor Valve (§63.425(e)(2)); Leak Detection Test (§63.425(f)); Nitrogen Pressure Decay Field Test (§63.425(g)); Continuous Performance Pressure Decay Test (§63.425(h)); or Railcar Bubble Leak Test Procedure (§63.425(i)).

(ii) Cargo tank owner's name and address.

(iii) Cargo tank identification number.

(iv) Test location and date.

(v) Tester name and signature.

(vi) Witnessing inspector, if any: Name, signature, and affiliation.

(vii) Vapor tightness repair: Nature of repair work and when performed in relation to vapor tightness testing.

(viii) Test results: test pressure; pressure or vacuum change, mm of water; time period of test; number of leaks found with instrument; and leak definition.

Tesoro Logistics Operations owns and operates a bulk gasoline terminal and is subject to the reporting and recordkeeping requirements listed in §63.428(b). This is assured by Permit Condition 3.12.

(c) Each owner or operator of a bulk gasoline terminal subject to the provisions of this subpart shall:

(1) Keep an up-to-date, readily accessible record of the continuous monitoring data required under §63.427(a). This record shall indicate the time intervals during which loadings of gasoline cargo tanks have occurred or, alternatively, shall record the operating parameter data only during such loadings. The date and time of day shall also be indicated at reasonable intervals on this record.

(2) Record and report simultaneously with the notification of compliance status required under §63.9(h):

(i) All data and calculations, engineering assessments, and manufacturer's recommendations used in determining the operating parameter value under §63.425(b); and

(ii) The following information when using a flare under provisions of §63.11(b) to comply with §63.422(b):

(A) Flare design (i.e., steam-assisted, air-assisted, or non-assisted); and

(B) All visible emissions readings, heat content determinations, flow rate measurements, and exit velocity determinations made during the compliance determination required under §63.425(a).

(3) If an owner or operator requests approval to use a vapor processing system or monitor an operating parameter other than those specified in §63.427(a), the owner or operator shall submit a description of planned reporting and recordkeeping procedures. The Administrator will specify appropriate reporting and recordkeeping requirements as part of the review of the permit application.

Tesoro Logistics Operations owns and operates a bulk gasoline terminal and is subject to the reporting and recordkeeping requirements listed in §63.428(c). This is assured by Permit Condition 3.12.

(d) Each owner or operator of storage vessels subject to the provisions of this subpart shall keep records and furnish reports as specified in §60.115b of this chapter, except records shall be kept for at least 5 years.

Tesoro Logistics Operations owns and operates storage vessels that are subject to the provisions of this subpart and is subject to the reporting and recordkeeping requirements listed in §63.428(d). This is assured by Permit Condition 4.12.

(e) Each owner or operator complying with the provisions of §63.424 (a) through (d) shall record the following information in the log book for each leak that is detected:

- (1) The equipment type and identification number;
- (2) The nature of the leak (i.e., vapor or liquid) and the method of detection (i.e., sight, sound, or smell);
- (3) The date the leak was detected and the date of each attempt to repair the leak;
- (4) Repair methods applied in each attempt to repair the leak;
- (5) "Repair delayed" and the reason for the delay if the leak is not repaired within 15 calendar days after discovery of the leak;
- (6) The expected date of successful repair of the leak if the leak is not repaired within 15 days; and
- (7) The date of successful repair of the leak.

Tesoro Logistics Operations is subject to the provisions listed in §63.424(a) through (d) and is required to comply with the reporting and recordkeeping requirements listed in §63.428(e). This is assured by Permit Conditions 3.12 and 4.12.

(f) Each owner or operator subject to the provisions of §63.424 shall report to the Administrator a description of the types, identification numbers, and locations of all equipment in gasoline service. For facilities electing to implement an instrument program under §63.424(f), the report shall contain a full description of the program.

- (1) In the case of an existing source or a new source that has an initial startup date before the effective date, the report shall be submitted with the notification of compliance status required under §63.9(h), unless an extension of compliance is granted under §63.6(i). If an extension of compliance is granted, the report shall be submitted on a date scheduled by the Administrator.
- (2) In the case of new sources that did not have an initial startup date before the effective date, the report shall be submitted with the application for approval of construction, as described in §63.5(d).

Tesoro Logistics Operations is subject to the provisions listed in §63.424 and is required to comply with the reporting and recordkeeping requirements listed in §63.428(f). This is assured by Permit Conditions 3.12 and 4.12.

(g) Each owner or operator of a bulk gasoline terminal or pipeline breakout station subject to the provisions of this subpart shall include in a semiannual report to the Administrator the following information, as applicable:

- (1) Each loading of a gasoline cargo tank for which vapor tightness documentation had not been previously obtained by the facility;
- (2) Periodic reports required under paragraph (d) of this section; and

(3) The number of equipment leaks not repaired within 5 days after detection.

Tesoro Logistics Operations owns and operates a bulk gasoline terminal and is subject to the provisions of this subpart and must comply with the reporting and recordkeeping requirements listed in §63.428(g). This is assured by Permit Conditions 3.12 and 4.12.

(h) Each owner or operator of a bulk gasoline terminal or pipeline breakout station subject to the provisions of this subpart shall submit an excess emissions report to the Administrator in accordance with §63.10(e)(3), whether or not a CMS is installed at the facility. The following occurrences are excess emissions events under this subpart, and the following information shall be included in the excess emissions report, as applicable:

(1) Each exceedance or failure to maintain, as appropriate, the monitored operating parameter value determined under §63.425(b). The report shall include the monitoring data for the days on which exceedances or failures to maintain have occurred, and a description and timing of the steps taken to repair or perform maintenance on the vapor collection and processing systems or the CMS.

(2) Each instance of a nonvapor-tight gasoline cargo tank loading at the facility in which the owner or operator failed to take steps to assure that such cargo tank would not be reloaded at the facility before vapor tightness documentation for that cargo tank was obtained.

(3) Each reloading of a nonvapor-tight gasoline cargo tank at the facility before vapor tightness documentation for that cargo tank is obtained by the facility in accordance with §63.422(c)(2).

(4) For each occurrence of an equipment leak for which no repair attempt was made within 5 days or for which repair was not completed within 15 days after detection:

(i) The date on which the leak was detected;

(ii) The date of each attempt to repair the leak;

(iii) The reasons for the delay of repair; and

(iv) The date of successful repair.

Tesoro Logistics Operations owns and operates a bulk gasoline terminal and is subject to the provisions of this subpart and must comply with the reporting and recordkeeping requirements listed in § 63.428(h). This is assured by Permit Conditions 3.12 and 4.12.

(i) Each owner or operator of a facility meeting the criteria in §63.420(c) shall perform the requirements of this paragraph (i), all of which will be available for public inspection:

(1) Document and report to the Administrator not later than December 16, 1996 for existing facilities, within 30 days for existing facilities subject to §63.420(c) after December 16, 1996, or at startup for new facilities the methods, procedures, and assumptions supporting the calculations for determining criteria in §63.420(c);

(2) Maintain records to document that the facility parameters established under §63.420(c) have not been exceeded; and

(3) Report annually to the Administrator that the facility parameters established under §63.420(c) have not been exceeded.

(4) At any time following the notification required under paragraph (i)(1) of this section and approval by the Administrator of the facility parameters, and prior to any of the parameters being exceeded, the owner or operator may submit a report to request modification of any facility parameter to the Administrator for approval. Each such request shall document any expected HAP emission change resulting from the change in parameter.

Tesoro Logistics Operations is exempt from the requirements in §63.420(c) and is not subject to the requirements listed in §63.428(i).

(j) Each owner or operator of a facility meeting the criteria in §63.420(d) shall perform the requirements of this paragraph (j), all of which will be available for public inspection:

- (1) Document and report to the Administrator not later than December 16, 1996 for existing facilities, within 30 days for existing facilities subject to §63.420(d) after December 16, 1996, or at startup for new facilities the use of the emission screening equations in §63.420(a)(1) or (b)(1) and the calculated value of E_T or E_P ;
- (2) Maintain a record of the calculations in §63.420 (a)(1) or (b)(1), including methods, procedures, and assumptions supporting the calculations for determining criteria in §63.420(d); and
- (3) At any time following the notification required under paragraph (j)(1) of this section, and prior to any of the parameters being exceeded, the owner or operator may notify the Administrator of modifications to the facility parameters. Each such notification shall document any expected HAP emission change resulting from the change in parameter.

Tesoro Logistics Operations is exempt from the requirements in §63.420(d) and is not subject to the requirements listed in §63.428(j).

(k) As an alternative to keeping records at the terminal of each gasoline cargo tank test result as required in paragraph (b) of this section, an owner or operator may comply with the requirements in either paragraph (k)(1) or (2) of this section.

(1) An electronic copy of each record is instantly available at the terminal.

(i) The copy of each record in paragraph (k)(1) of this section is an exact duplicate image of the original paper record with certifying signatures.

(ii) The permitting authority is notified in writing that each terminal using this alternative is in compliance with paragraph (k)(1) of this section.

(2) For facilities that utilize a terminal automation system to prevent gasoline cargo tanks that do not have valid cargo tank vapor tightness documentation from loading (e.g., via a card lock-out system), a copy of the documentation is made available (e.g., via facsimile) for inspection by permitting authority representatives during the course of a site visit, or within a mutually agreeable time frame.

(i) The copy of each record in paragraph (k)(2) of this section is an exact duplicate image of the original paper record with certifying signatures.

(ii) The permitting authority is notified in writing that each terminal using this alternative is in compliance with paragraph (k)(2) of this section.

Tesoro Logistics Operations has the opportunity to comply with §63.428(k) in the place of §63.428(b). If the facility complies with the alternative recordkeeping they are subject to §63.428(k). This is assured by Permit Condition 3.12.

§ 63.429.....Implementation and enforcement.

(a) This subpart can be implemented and enforced by the U.S. EPA, or a delegated authority such as the applicable State, local, or Tribal agency. If the U.S. EPA Administrator has delegated authority to a State, local, or Tribal agency, then that agency, in addition to the U.S. EPA, has the authority to implement and enforce this subpart. Contact the applicable U.S. EPA Regional Office to find out if implementation and enforcement of this subpart is delegated to a State, local, or Tribal agency.

(b) In delegating implementation and enforcement authority of this subpart to a State, local, or Tribal agency under subpart E of this part, the authorities contained in paragraph (c) of this section are retained by the Administrator of U.S. EPA and cannot be transferred to the State, local, or Tribal agency.

(c) The authorities that cannot be delegated to State, local, or Tribal agencies are as specified in paragraphs (c)(1) through (4) of this section.

(1) Approval of alternatives to the requirements in §§63.420, 63.422 through 63.423, and 63.424. Any owner or operator requesting to use an alternative means of emission limitation for storage vessels covered by §63.423 must follow the procedures in §63.426.

(2) Approval of major alternatives to test methods under §63.7(e)(2)(ii) and (f), as defined in §63.90, and as required in this subpart.

(3) Approval of major alternatives to monitoring under §63.8(f), as defined in §63.90, and as required in this subpart, and any alternatives to §63.427(a)(1) through (4) per §63.427(a)(5).

(4) Approval of major alternatives to recordkeeping and reporting under §63.10(f), as defined in §63.90, and as required in this subpart.

Tesoro Logistics Operations is not subject to §63.429(a) through (c). This section is outlining requirements for regulatory agencies.

Table 1 to Subpart R of Part 63—General Provisions Applicability to Subpart R

Reference	Applies to subpart R	Comment
63.1(a)(1)	Yes	
63.1(a)(2)	Yes	
63.1(a)(3)	Yes	
63.1(a)(4)	Yes	
63.1(a)(5)	No	Section reserved
63.1(a)(6)(8)	Yes	
63.1(a)(9)	No	Section reserved
63.1(a)(10)	Yes	
63.1(a)(11)	Yes	
63.1(a)(12)-(a)(14)	Yes	
63.1(b)(1)	No	Subpart R specifies applicability in §63.420
63.1(b)(2)	Yes	
63.1(b)(3)	No	Subpart R specifies reporting and recordkeeping for some large area sources in §63.428
63.1(c)(1)	Yes	
63.1(c)(2)	Yes	Some small sources are not subject to subpart R
63.1(c)(3)	No	Section reserved
63.1(c)(4)	Yes	
63.1(c)(5)	Yes	
63.1(d)	No	Section reserved
63.1(e)	Yes	
63.2	Yes	Additional definitions in §63.421
63.3(a)-(c)	Yes	
63.4(a)(1)-(a)(3)	Yes	
63.4(a)(4)	No	Section reserved

63.4(a)(5)	Yes	
63.4(b)	Yes	
63.4(c)	Yes	
63.5(a)(1)	Yes	
63.5(a)(2)	Yes	
63.5(b)(1)	Yes	
63.5(b)(2)	No	Section reserved
63.5(b)(3)	Yes	
63.5(b)(4)	Yes	
63.5(b)(5)	Yes	
63.5(b)(6)	Yes	
63.5(c)	No	Section reserved
63.5(d)(1)	Yes	
63.5(d)(2)	Yes	
63.5(d)(3)	Yes	
63.5(d)(4)	Yes	
63.5(e)	Yes	
63.5(f)(1)	Yes	
63.5(f)(2)	Yes	
63.6(a)	Yes	
63.6(b)(1)	Yes	
63.6(b)(2)	Yes	
63.6(b)(3)	Yes	
63.6(b)(4)	Yes	
63.6(b)(5)	Yes	
63.6(b)(6)	No	Section reserved
63.6(b)(7)	Yes	
63.6(c)(1)	No	Subpart R specifies the compliance date
63.6(c)(2)	Yes	
63.6(c)(3)-(c)(4)	No	Sections reserved
63.6(c)(5)	Yes	
63.6(d)	No	Section reserved
63.6(e)	Yes	

63.6(f)(1)	Yes	
63.6(f)(2)	Yes	
63.6(f)(3)	Yes	
63.6(g)	Yes	
63.6(h)	No	Subpart R does not require COMS
63.6(i)(1)-(i)(14)	Yes	
63.6(i)(15)	No	Section reserved
63.6(i)(16)	Yes	
63.6(j)	Yes	
63.7(a)(1)	Yes	
63.7(a)(2)	Yes	
63.7(a)(3)	Yes	
63.7(b)	Yes	
63.7(c)	Yes	
63.7(d)	Yes	
63.7(e)(1)	Yes	
63.7(e)(2)	Yes	
63.7(e)(3)	Yes	
63.7(e)(4)	Yes	
63.7(f)	Yes	
63.7(g)	Yes	
63.7(h)	Yes	
63.8(a)(1)	Yes	
63.8(a)(2)	Yes	
63.8(a)(3)	No	Section reserved
63.8(a)(4)	Yes	
63.8(b)(1)	Yes	
63.8(b)(2)	Yes	
63.8(b)(3)	Yes	
63.8(c)(1)	Yes	
63.8(c)(2)	Yes	
63.8(c)(3)	Yes	
63.8(c)(4)	Yes	

63.8(c)(5)	No	Subpart R does not require COMS
63.8(c)(6)-(c)(8)	Yes	
63.8(d)	Yes	
63.8(e)	Yes	
63.8(f)(1)-(f)(5)	Yes	
63.8(f)(6)	Yes	
63.8(g)	Yes	
63.9(a)	Yes	
63.9(b)(1)	Yes	
63.9(b)(2)	No	Subpart R allows additional time for existing sources to submit initial notification. Sec. 63.428(a) specifies submittal by 1 year after being subject to the rule or December 16, 1996, whichever is later.
63.9(b)(3)	Yes	
63.9(b)(4)	Yes	
63.9(b)(5)	Yes	
63.9(c)	Yes	
63.9(d)	Yes	
63.9(e)	Yes	
63.9(f)	Yes	
63.9(g)	Yes	
63.9(h)(1)-(h)(3)	Yes	
63.9(h)(4)	No	Section reserved
63.9(h)(5)-(h)(6)	Yes	
63.9(i)	Yes	
63.9(j)	Yes	
63.10(a)	Yes	
63.10(b)(1)	Yes	
63.10(b)(2)	Yes	
63.10(b)(3)	Yes	
63.10(c)(1)	Yes	
63.10(c)(2)-(c)(4)	No	Sections reserved
63.10(c)(5)-(c)(8)	Yes	
63.10(c)(9)	No	Section reserved
63.10(c)(5)-(c)(8)	Yes	

63.10(d)(1)	Yes	
63.10(d)(2)	Yes	
63.10(d)(3)	Yes	
63.10(d)(4)	Yes	
63.10(d)(5)	Yes	
63.10(e)	Yes	
63.10(f)	Yes	
63.11(a)-(b)	Yes	
63.11(c), (d), and (e)	Yes	
63.12(a)-(c)	Yes	
63.13(a)-(c)	Yes	
63.14(a)-(b)	Yes	
63.15(a)-(b)	Yes	

Permit Conditions Review

This section describes the permit conditions for this initial permit or only those permit conditions that have been added, revised, modified or deleted as a result of this permitting action.

Existing Permit Conditions 3.3 and 4.2

The permittee shall limit VOC emissions from the gasoline, diesel, and transmix loading rack to amounts not to exceed the ton-per-year values listed in Appendix A based on any consecutive 12-month period.

Revised Permit Conditions 3.3 and 4.3

The reference to the appendix has been removed to include the limits in table format for each emission unit.

Existing Permit Conditions 3.4 and 4.3

The permittee shall limit facility throughputs to amounts not to exceed the U.S. gallons or barrels per year values listed in Appendix B based on any consecutive 12-month period.

Revised Permit Conditions 3.4 and 4.4

The permittee shall limit throughputs to amounts not to exceed the following limits 370,800,990 U.S. Gallons or 8,828,595 barrels of gasoline, 2,520,000 U.S. Gallons or 60,000 barrels of transmix, and 191,453,010 U.S. Gallons or 4,558,405 barrels of diesel on any consecutive 12-month period.

This permit condition has been revised to remove the reference to the appendix table and to include limits for the loading rack and tanks. Limits are given in units of U.S. Gallons and Barrels.

Existing Permit Condition 3.11

Where a flare meeting the requirements in 40 CFR 63.11(b) is used, a heat-sensing device, such as an ultraviolet beam sensor or a thermocouple, must be installed in proximity to the pilot light to indicate the presence of a flame.

Revised Permit Condition 3.11

Where a thermal oxidation system other than a flare is used, a CPMS capable of measuring temperature must be installed in the firebox or in the ductwork immediately downstream from the firebox in a position before any substantial heat exchange occurs.

The applicant has indicated that the existing condition is incorrect (40 CFR 63.427(a)(4)) and should be changed to read as shown in the revised condition (40 CFR 63.427(a)(3)).

PUBLIC REVIEW

Public Comment Opportunity

An opportunity for public comment period on the application was provided in accordance with IDAPA 58.01.01.209.01.c or IDAPA 58.01.01.404.01.c. During this time, there were comments on the application and there was a request for a public comment period on DEQ's proposed action. Refer to the chronology for public comment opportunity dates.

Public Comment Period

A public comment period was made available to the public in accordance with IDAPA 58.01.01.209.01.c. During this time, comments were submitted in response to DEQ's proposed action. Refer to the chronology for public comment period dates.

A response to public comments document has been crafted by DEQ based on comments submitted during the public comment period. That document is part of the final permit package for this permitting action.

APPENDIX A – EMISSIONS INVENTORIES

Table E-1a. Modeled Point Source Parameters for VCU

Point Sources	Description	Source	UTM East ^a (m)	UTM North ^a (m)	Elevation ^b (m)	Release Height ^c (m)	Release Temp ^d (K)	Velocity ^e (m/s)	Diameter ^c (m)	NO _x Emissions (g/s)		Modeled Annual Emissions ^f		
										Short-Term	Annual	Naphthalene (g/s)	Benzene (g/s)	Combustion Byproducts ^g (g/s)
VCU	Stack Emissions from VCU	POINT	374718	4752779	1350.93	10.67	592.59	2.28	2.44	1.133E+00	9.299E-02	1.875E-06	2.530E-05	1.000E+00

^a Coordinates for point source are given in UTM Zone 12 with NAD 1983 projection. Coordinates were established using aerial imagery and attached plot plans of the facility.

^b Source elevations based on output from EPA's AERMAP elevation software, version 11103. AERMAP computed these elevations based on seamless NED data covering the area around the site. Data obtained from the United States Geological Survey via the MRLC Consortium seamless server.

^c Release height and stack diameter based on measurements at the Pocatello site.

^d Online temperature data is not recorded from this stack. The temperature estimate is based on a source test (November 9, 2001) for the VCU.

607 °F

^e Stack exit velocity calculated using stoichiometric combustion calculations. See Tables B-3a through B-3c for details.

^f Modeled sources are representative of emissions in Table C-17a.

^g Combustion byproducts include formaldehyde, arsenic, cadmium, and nickel. The emission rates of these pollutants are proportional, so they are modeled assuming a nominal emission rate of 1 g/s for the VCU. Model results are scaled based on the emission rates of each pollutant.

Table E-1b. Modeled Product Loading Sources

Volume Sources	Description	Source	UTM East ^a (m)	UTM North ^a (m)	Elevation ^b (m)	Release Height ^c (m)	Initial Lateral Dimension ^e (m)	Initial Vertical Dimension ^e (m)	Modeled Annual Emissions ^d	
									Benzene (g/s)	Naphthalene (g/s)
Loading Rack	Center of Loading Rack	-	374836	4752748	-	-	-	-	0.000E+00	4.971E-07
BAY1_1	Fugitive Emissions from Loading Rack	VOLUME	374838	4752760	1350.15	1.63	1.13	1.51	0.000E+00	5.524E-08
BAY1_2	Fugitive Emissions from Loading Rack	VOLUME	374836	4752760	1350.17	1.63	1.13	1.51	0.000E+00	5.524E-08
BAY1_3	Fugitive Emissions from Loading Rack	VOLUME	374834	4752760	1350.19	1.63	1.13	1.51	0.000E+00	5.524E-08
BAY2_1	Fugitive Emissions from Loading Rack	VOLUME	374838	4752750	1350.26	1.63	1.13	1.51	0.000E+00	5.524E-08
BAY2_2	Fugitive Emissions from Loading Rack	VOLUME	374836	4752750	1350.28	1.63	1.13	1.51	0.000E+00	5.524E-08
BAY2_3	Fugitive Emissions from Loading Rack	VOLUME	374834	4752750	1350.31	1.63	1.13	1.51	0.000E+00	5.524E-08
BAY3_1	Fugitive Emissions from Loading Rack	VOLUME	374838	4752740	1350.41	1.63	1.13	1.51	0.000E+00	5.524E-08
BAY3_2	Fugitive Emissions from Loading Rack	VOLUME	374836	4752740	1350.41	1.63	1.13	1.51	0.000E+00	5.524E-08
BAY3_3	Fugitive Emissions from Loading Rack	VOLUME	374834	4752740	1350.42	1.63	1.13	1.51	0.000E+00	5.524E-08
BAYT_1	Fugitive Emissions from Transmix Bay	VOLUME	374838	4752732	1350.49	1.63	1.13	1.51	8.268E-07	7.471E-10
BAYT_2	Fugitive Emissions from Transmix Bay	VOLUME	374836	4752732	1350.49	1.63	1.13	1.51	8.268E-07	7.471E-10
BAYT_3	Fugitive Emissions from Transmix Bay	VOLUME	374834	4752732	1350.5	1.63	1.13	1.51	8.268E-07	7.471E-10

^a Coordinates for the loading rack are given in UTM Zone 12 with NAD 1983 projection. The coordinates in the first row are the center of the rack, in the middle bay. Coordinates were established using aerial imagery and attached plot plans of the facility. Coordinates of the individual volume sources are based on the three product loading bays and the single transmix loading / ethanol offloading bay at the loading rack. Based on the plot plans and aerial imagery, the centerlines of each bay are 10 m apart. The bays run east to west. Therefore, Bay 1 is 31 ft north of Bay 2, and Bay 3 is 31 ft south. With regard to the number and spacing of volume sources: each tank truck is approximately 8.0 feet wide. This width is used to define volume source spacing as described in EPA's AERMOD user guide, Table 3-1, and EPA's 1995 ISCST3 model user guide, Figure 1-8a. According to this figure, each volume source is to be spaced 8.0 feet apart. Each truck is approximately 23 ft long. 23 ft / 8.0 ft = 2.875, so three volume sources are used to represent each bay. The volume sources are located with reference to the center of the loading rack: one 8 ft west of the centerline, one located on the centerline, and one 8 ft east of the centerline for each bay.

Length of truck + trailer:	7.01	m	=	23.0	ft
Width of truck:	2.44	m	=	8.0	ft
Number of volume sources per bay:	3				
Height of truck:	3.25	m	=	10.67	ft
Volume source release height:	1.6	m	=	5.3	ft

^b Source elevations based on output from EPA's AERMAP elevation software, version 11103. AERMAP computed these elevations based on seamless NED data covering the area around the site. Data obtained from the United States Geological Survey via the MRLC Consortium seamless server.

^c Volume source initial vertical dimensions are based on the estimated height of a gasoline tank truck. The tank truck height is set to 3.25 meters, and the central release height is taken to be the middle of the truck. Volume source initial lateral dimension is calculated as the truck width / 2.15, as described in footnote a, for adjacent volume sources forming a line source, in accordance with the State of Idaho Modeling Guideline. Each volume source in the adjacent sources is identical.

^d Emission rates of each species are calculated by equally apportioning the loading rack emissions.

Table E-1c. Modeled Furnace Source

Volume Sources	Description	Source	UTM East ^a (m)	UTM North ^a (m)	Elevation ^b (m)	Release Height ^c (m)	Release Temp ^d (K)	Velocity ^e (m/s)	Diameter ^c (m)	NO _x Emissions (g/s)		Modeled Annual Emissions		
										Short-Term	Annual	Benzene (g/s)	Naphthalene (g/s)	Combustion Byproducts ^f (g/s)
FURN	Comfort heater (natural gas)	POINT	374745	4752746	1351.34	4.27	0	1.92	7.62E-02	1.297E-03	1.297E-03	2.724E-08	7.912E-09	6.865E-02

^a Coordinates for the furnace stack source are given in UTM Zone 12 with NAD 1983 projection.

^b Source elevations based on output from EPA's AERMAP elevation software, version 11103. AERMAP computed these elevations based on seamless NED data covering the area around the site.

^c Release height and stack diameter based on on-site measurements (November 12, 2015).

^d Release temperature not specified in the heater specifications, so a conservative ambient temperature setting is used. This temperature setting is represented with a "0" in the input file for EPA's AERMOD model.

^e Velocity for the furnace is calculated below:

Heater Capacity	0.105 MMBtu/hr
Exhaust Factor	10,610 wscf/MMBtu (EPA Method 19)
Exhaust Gas	1,114 wscf/hr
	31.55 scm/hr
Stack Diameter	0.076 m
Stack Cross-Sectional Area	0.0046 sq. m
Stack Exit Velocity	1.92 m/s

^f Combustion byproducts include formaldehyde, arsenic, cadmium, and nickel. The emission rates of these pollutants are proportional, so they are modeled assuming a nominal emission rate of 1 g/s for the VCU. The modeled furnace nominal emission rate is calculated by dividing the pollutant-specific furnace emission rate by the VCU emission rate. Model results are scaled based on the emission rates of each pollutant.

Table E-1d. Coordinates Used to Obtain Elevation Data

Location	UTM East ^a (m)	UTM North ^a (m)	Longitude	Latitude
Center of Facility	374809.5	4752788	-112.53386	42.91744
Point NE of Center	394809.5	4772788	-112.29265	43.10052
Point SW of Center	354809.5	4732788	-112.77364	42.73388

^a Coordinates for the facility given in UTM Zone 12 with NAD 1983 projection. A terrain data range of +/- 10 km from the facility center is used.

APPENDIX B – AMBIENT AIR QUALITY IMPACT ANALYSES

MEMORANDUM

DATE: November 15, 2016

TO: Craig Woodruff, Permit Writer, Air Program

FROM: Darrin Mehr, Analyst, Air Program

PROJECT: P-2016.0020 PROJ 61700 – Permit to Construct (PTC) Application for Tesoro Logistics Operations, LLC for the Tier II Operating Permit Conversion to a PTC and Permitting of the Previously-Installed Vapor Combustion Unit Project at the Existing Facility Near Pocatello, Idaho

SUBJECT: Demonstration of Compliance with IDAPA 58.01.01.203.02 (NAAQS) and 203.03 (TAPs)

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Acronyms, Units, and Chemical Nomenclature

AAC	Acceptable Ambient Concentration of a Non-Carcinogenic TAP
AACC	Acceptable Ambient Concentration of a Carcinogenic TAP
ACFM	Actual cubic feet per minute
AERMAP	The terrain data preprocessor for AERMOD
AERMET	The meteorological data preprocessor for AERMOD
AERMOD	American Meteorological Society/Environmental Protection Agency Regulatory Model
Appendix W	40 CFR 51, Appendix W – Guideline on Air Quality Models
ARM	Ambient Ratio Method
BPIP	Building Profile Input Program
BRC	Below Regulatory Concern
Btu/hr	British Thermal Units per hour
CFR	Code of Federal Regulations
CMAQ	Community Multi-Scale Air Quality Modeling System
CO	Carbon Monoxide
DEQ	Idaho Department of Environmental Quality
EL	Emissions Screening Level of a TAP
EPA	United States Environmental Protection Agency
gal/yr	Gallons per Year
GEP	Good Engineering Practice
gpm	Gallons per Minute
hr	Hours
Idaho Air Rules	Rules for the Control of Air Pollution in Idaho, located in the Idaho Administrative Procedures Act 58.01.01
ISCST3	Industrial Source Complex Short Term 3 dispersion model
K	Kelvin
m	Meters
m/s	Meters per second
MMBtu	Million British Thermal Units
NAAQS	National Ambient Air Quality Standards
NED	National Elevation Dataset
NO	Nitrogen Oxide
NO ₂	Nitrogen Dioxide
NO _x	Oxides of Nitrogen
NWS	National Weather Service
O ₃	Ozone
Pb	Lead
PM ₁₀	Particulate matter with an aerodynamic particle diameter less than or equal to a nominal 10 micrometers
PM _{2.5}	Particulate matter with an aerodynamic particle diameter less than or equal to a nominal 2.5 micrometers
ppb	Parts Per Billion
PRIME	Plume Rise Model Enhancement
PTC	Permit to Construct
PTE	Potential to Emit
SIL	Significant Impact Level
SO ₂	Sulfur Dioxide

TAP	Toxic Air Pollutant
TLO	Tesoro Logistics Operations, LLC (permittee)
T/yr	tons per year
Trinity	Trinity Consultants (project permitting consultant)
USGS	United States Geological Survey
UTM	Universal Transverse Mercator
VCU	Vapor Control Unit
VOCs	Volatile Organic Compounds
$\mu\text{g}/\text{m}^3$	<u>Micrograms per cubic meter of air</u>

1.0 Summary

1.1 General Project Summary

On April 15, 2016, Tesoro Logistics Operations, LLC (TLO) submitted an application for Permit to Construct (PTC) for the conversion of the expired facility-wide Tier II Operating Permit to a PTC and a PTC for the historical installation of a vapor control unit (VCU) enclosed thermal oxidation device, operated to control VOCs and TAPs/HAPs collected from the facility's product loading rack. There are no other modifications to this existing facility for this project.

On October 6, 2016, TLO submitted a revised modeling report, presenting the ambient air impact analyses that support issuance of the PTC. The revisions accounted for increased pollutant emissions associated with a revision in estimated potential to emit (PTE), resulting from increased potential gasoline throughput. Emissions rates for NO_x were altered and additional natural gas combustion TAPs for the VCU pilot flame and the small comfort heater at the site were added to the emissions inventory and the ambient air impact analyses. The volumetric flow rate for the VCU was altered to more accurately reflect the quantity of combustibles over the time period.

Project-specific air quality impact analyses involving atmospheric dispersion modeling of estimated emissions associated with the facility were submitted to DEQ to demonstrate that the facility would not cause or significantly contribute to a violation of any ambient air quality standard (IDAPA 58.01.01.203.02 and 203.03 [Idaho Air Rules Section 203.02 and 203.03]). Trinity Consultants (Trinity), TLO's permitting and modeling consultant, submitted analyses and applicable information and data to enable DEQ to evaluate potential impacts to ambient air.

Trinity performed project-specific air quality impact analyses to demonstrate compliance for facility-wide allowable emissions with air quality standards. The DEQ review summarized by this memorandum addressed only the rules, policies, methods, and data pertaining to the pollutant dispersion modeling analyses used to demonstrate that the estimated emissions associated with operation of the facility as modified will not cause or significantly contribute to a violation of the applicable air quality standards. This review did not evaluate compliance with other rules or analyses that do not pertain to the air impact analyses. This modeling review also did not evaluate the accuracy of emissions estimates. Evaluation of emissions estimates was the responsibility of the permit writer and is addressed in the main body of the DEQ Statement of Basis.

The submitted air quality impact analyses: 1) utilized appropriate methods and models according to established DEQ/EPA rules, policies, guidance, and procedures; 2) was conducted using reasonably accurate or conservative model parameters and input data (review of emissions estimates was addressed by the DEQ permit writer); 3) adhered to established DEQ guidelines for new source review dispersion modeling; 4) showed either a) that estimated potential emissions are at a level defined as below regulatory concern (BRC) and do not require a NAAQS compliance demonstration; b) that predicted pollutant concentrations from emissions associated with the facility as modeled were below Significant Impact Levels (SILs) or other applicable regulatory thresholds; or c) that predicted pollutant concentrations from applicable emissions associated with the project as modeled, when appropriately combined with co-contributing sources and background concentrations, were below applicable National Ambient Air Quality Standards (NAAQS) at ambient air locations where and when the project has a significant impact; 5) showed that Toxic Air Pollutant (TAP) emissions increases associated with the project do not result in increased emissions and modeling was not required to demonstrate compliance with any TAPs increments. Table 1 presents key assumptions and results to be considered in the

development of the permit.

Table 1. KEY CONDITIONS USED IN MODELING ANALYSES	
Criteria/Assumption/Result	Explanation/Consideration
<p>Vapor Control Unit and Loading Rack</p> <p>The Vapor Control Unit (VCU) and a small natural gas-fired comfort heater are the only sources of NOx emissions.</p> <p>NOx emissions of 9.0 lb/hr and 3.2 tons per year were modeled for the loading rack's VCU.</p> <p>Compliance with the 1-hr NO₂ NAAQS was demonstrated by a wide margin based on the emission source impacts and DEQ-approved ambient background concentration. This project's facility-wide ambient impacts plus background were 62% of the allowable 1-hour NO₂ NAAQS.</p> <p>Annual average NO₂ impacts were one half of the annual NO₂ SIL so an annual NO₂ cumulative NAAQS compliance demonstration was not required.</p>	<p>NOx and TAPs emissions from the loading rack with the VCU capture and emission control system were based on the following assumptions:</p> <ul style="list-style-type: none"> • 5,500 gallons per minute (gpm) and 370,800,990 gallons per year (gal/yr) of gasoline throughput; • 3,300 gpm and 191,453,010 gal/yr of diesel fuel throughput; and, • 550 gpm and 2,520,000 gal/yr of transmix throughput.

Air impact analyses are required by Idaho Air Rules to be conducted according to methods outlined in 40 CFR 51, Appendix W (Guideline on Air Quality Models). Appendix W requires that facilities be modeled using emissions and operations representative of design capacity or as limited by a federally enforceable permit condition. The submitted information and analyses demonstrated to the satisfaction of the Department, using DEQ/EPA established guidance, policies, and procedures, that operation of the proposed facility or modification will not cause or significantly contribute to a violation of any ambient air quality standard, provided the key conditions in Table 1 are representative of facility design capacity or operations as limited by a federally enforceable permit condition.

1.2 Summary of Submittals and Actions

- February 26, 2016: DEQ received a modeling protocol from Trinity on behalf of TLO via email.
- March 18, 2016: DEQ issued a modeling protocol approval letter with comments to Trinity via email.
- April 15, 2016: TLO submitted a PTC application for the Pocatello terminal to convert an expired Tier II operating permit to a PTC and obtain a PTC for the existing vapor control unit at the facility.
- May 12, 2016: DEQ declared the application complete.
- July 11, 2016: DEQ issued the facility draft PTC package to TLO.
- October 6, 2016: DEQ received a revised permit application and modeling report based on increased gasoline throughput capacity at the loading rack.
- October 24, 2016: DEQ received electronic modeling files supporting the revised ambient impact analyses.

2.0 Background Information

2.1 Permit Requirements for Permits to Construct

PTCs are issued to authorize the construction of a new source or modification of an existing source or permit. Idaho Air Rules Section 203.02 requires that emissions from the new source or modification not cause or significantly contribute to a violation of an air quality standard, and Idaho Air Rules Section 203.03 requires that emissions from a new source or modification comply with applicable toxic air pollutant (TAP) increments of Idaho Air Rules Sections 585 and 586.

2.2 Project Location and Area Classification

The facility is located near Pocatello, Idaho, in Bannock County. The area is designated as attainment or unclassifiable for all pollutants. The area operates under the Portneuf Valley limited PM₁₀ maintenance plan.

2.3 Modeling Applicability for Criteria Pollutants

2.3.1 Below Regulatory Concern and DEQ Modeling Guideline Level I and II Thresholds

Idaho Air Rules Section 203.02 state that a PTC cannot be issued unless the application demonstrates to the satisfaction of DEQ that the new source or modification will not cause or significantly contribute to a NAAQS violation. Atmospheric dispersion modeling is used to evaluate the potential impact of a proposed project to ambient air and demonstrate NAAQS compliance. However, if the emissions associated with a project are very small, project-specific modeling analyses may not be necessary. If the emissions increases associated with a project are below modeling applicability thresholds established in the *Idaho Air Modeling Guideline* (“State of Idaho Guideline for Performing Air Quality Impact Analyses”), available at <http://www.deq.idaho.gov/media/1029/modeling-guideline.pdf>, then a project-specific analysis is not required. Modeling applicability emissions thresholds were developed by DEQ based on modeling of a hypothetical source and were designed to reasonably ensure that impacts are below the applicable SIL. DEQ has established two threshold levels: Level 1 thresholds are unconditional thresholds, requiring no approval for use by DEQ; Level 2 thresholds are conditional upon DEQ approval, which depends on evaluation of the project and the site, including emissions quantities, stack parameters, number of sources emissions are distributed amongst, distance between the sources and the ambient air boundary, and the presence of sensitive receptors near the ambient air boundary.

Certain pollutants were exempted from the requirement to demonstrate compliance with NAAQS per Idaho Air Rules Section 203.02. If project-wide potential to emit (PTE) values for criteria pollutants would qualify for a below regulatory concern (BRC) permit exemption as per Idaho Air Rules Section 221 if it were not for potential emissions of one or more criteria pollutants exceeding the BRC threshold of 10 percent of emissions defined by Idaho Air Rules as significant, then a NAAQS compliance demonstration may not be required for those pollutants. BRC permit exemptions are based solely upon annual emission rates. DEQ’s regulatory interpretation policy of exemption provisions of Idaho Air Rules Section 221 is that: “A DEQ NAAQS compliance assertion will not be made by the DEQ modeling group for specific criteria pollutants having a project emissions increase below BRC levels, provided the proposed project would have qualified for a Category I Exemption for BRC emissions quantities except for the emissions of another criteria pollutant.¹” The interpretation policy also states that the exemption criteria of uncontrolled PTE not to exceed 100 tons per year (T/yr) (Idaho Air Rules

Section 220.01.a.i) is not applicable when evaluating whether a NAAQS impact analyses is required. A permit will be issued limiting PTE below 100 T/yr, thereby negating the need to maintain calculated uncontrolled PTE under 100 T/yr. Table 2 presents the BRC modeling applicability for this project.

Criteria Pollutant	Below Regulatory Concern Level (ton/year)	Applicable Facility-Wide Potential Emissions (ton/year)	NAAQS Compliance Exempted per BRC Policy?
PM ₁₀ ^a	1.5	0.17	Yes
PM _{2.5} ^b	1.0	0.17	Yes
Carbon Monoxide (CO)	10.0	1.8	Yes
Sulfur Dioxide (SO ₂)	4.0	0.02	Yes
Nitrogen Oxides (NOx)	4.0	3.3	Yes
Lead (Pb)	0.06	3.5E-06	Yes
Ozone as VOC or NOx	4.0	48.2 T/yr VOCs	No

^a Particulate matter with an aerodynamic diameter less than or equal to a nominal 10 micrometers.

^b Particulate matter with an aerodynamic diameter less than or equal to a nominal 2.5 micrometers.

Emissions of VOCs exceeded the BRC threshold of 4.0 T/yr. Level I modeling thresholds for emissions of VOCs for ozone formation do not exist. Modeling applicability for emissions of VOCs is discussed in Section 2.3.2.

This project’s emissions of NOx and CO emissions were reduced in the October 6, 2016 revised submittal. Based on the October 2016 submittal, the final requested potential emissions of NO_x, CO, PM_{2.5}, PM₁₀, SO₂, and lead are less than the BRC thresholds for this project. By DEQ regulatory interpretation policy, a NAAQS compliance demonstration is not required for these pollutants. Trinity elected to submit 1-hour average and annual average NO₂ SIL and NAAQS analyses for this project to conclusively show that operations comply with NAAQS.

2.3.2 Ozone Modeling Applicability

Ozone (O₃) differs from other criteria pollutants in that it is not typically emitted directly into the atmosphere. O₃ is formed in the atmosphere through reactions of VOCs, NO_x, and sunlight. Atmospheric dispersion models used in stationary source air permitting analyses cannot be used to estimate O₃ impacts resulting from VOC and NOx emissions from an industrial facility. O₃ concentrations resulting from area-wide emissions are predicted by using more complex airshed models such as the Community Multi-Scale Air Quality (CMAQ) modeling system. Use of the CMAQ model is very resource intensive and DEQ asserts that performing a CMAQ analysis for a particular permit application is not typically a reasonable or necessary requirement for air quality permitting.

Addressing secondary formation of O₃ has been somewhat addressed in EPA regulation and policy. As stated in a letter from Gina McCarthy of EPA to Robert Ukeiley, acting on behalf of the Sierra Club (letter from Gina McCarthy, Assistant Administrator, United States Environmental Protection Agency, to Robert Ukeiley, January 4, 2012):

... footnote 1 to sections 51.166(I)(5)(I) of the EPA’s regulations says the following: “No de minimis air quality level is provided for ozone. However, any net emission increase of 100 tons per year or more of volatile organic compounds or nitrogen oxides subject to PSD would be required to perform an ambient impact analysis, including the gathering of air quality data.”

The EPA believes it unlikely a source emitting below these levels would contribute to such a violation of the 8-hour ozone NAAQS, but consultation with an EPA Regional Office should still be conducted in accordance with section 5.2.1.c. of Appendix W when reviewing an application for sources with emissions of these ozone precursors below 100 TPY.”

Allowable emissions estimates of VOCs at 48 T/yr and NO_x at 3.2 T/yr are well below the 100 T/yr threshold, and DEQ determined it was not appropriate or necessary to require a quantitative source specific O₃ impact analysis.

2.3.3 Secondary Particulate Formation Modeling Applicability

The impact from secondary particulate formation resulting from emissions of NO_x, SO₂, and/or VOCs was assumed by DEQ to be negligible based on of the magnitude of emissions and the short distance from emissions sources to modeled receptors where maximum PM₁₀ and PM_{2.5} impacts would be anticipated.

2.4 Significant and Cumulative NAAQS Impact Analyses

If maximum modeled pollutant impacts to ambient air from emissions sources associated with a new facility or the emissions increase associated with a modification exceed the SILs of Idaho Air Rules Section 006 (referred to as a significant contribution in Idaho Air Rules) or as incorporated by reference as per Idaho Air Rules Section 107.03.b, then a cumulative NAAQS impact analysis is necessary to demonstrate compliance with NAAQS and Idaho Air Rules Section 203.02. A cumulative NAAQS impact analysis may also be required for permit revisions driven by compliance/enforcement actions, any correction of emissions limits or other operational parameters that may affect pollutant impacts to ambient air, or other cases where DEQ believes NAAQS may be threatened by the emissions associated with the facility or proposed project.

A cumulative NAAQS impact analysis for attainment area pollutants involves assessing ambient impacts, according to established DEQ/EPA guidance, policies, and procedures, from applicable facility-wide emissions and emissions from any nearby co-contributing sources. A DEQ-approved background concentration value is then added to the modeled result that is appropriate for the criteria pollutant/averaging-time at the facility location and the area of significant impact. The resulting pollutant concentrations in ambient air are then compared to the NAAQS listed in Table 3. Table 3 also lists SILs and specifies the modeled design value that must be used for comparison to the NAAQS. NAAQS compliance is evaluated on a receptor-by-receptor basis.

Table 3. APPLICABLE REGULATORY LIMITS

Pollutant	Averaging Period	Significant Impact Levels ^a (µg/m ³) ^b	Regulatory Limit ^c (µg/m ³)	Modeled Design Value Used ^d
PM ₁₀ ^e	24-hour	5.0	150 ^f	Maximum 6 th highest ^g
PM _{2.5} ^h	24-hour	1.2	35 ⁱ	Mean of maximum 8 th highest ^j
	Annual	0.3	12 ^k	Mean of maximum 1 st highest ^l
Carbon monoxide (CO)	1-hour	2,000	40,000 ^m	Maximum 2 nd highest ⁿ
	8-hour	500	10,000 ^m	Maximum 2 nd highest ⁿ
Sulfur Dioxide (SO ₂)	1-hour	3 ppb ^o (7.8 µg/m ³)	75 ppb ^p (196 µg/m ³)	Mean of maximum 4 th highest ^q
	3-hour	25	1,300 ^m	Maximum 2 nd highest ⁿ
Nitrogen Dioxide (NO ₂)	1-hour	4 ppb (7.5 µg/m ³)	100 ppb ^s (188 µg/m ³)	Mean of maximum 8 th highest ^t
	Annual	1.0	100 ^r	Maximum 1 st highest ⁿ
Lead (Pb)	3-month ^u	NA	0.15 ^r	Maximum 1 st highest ⁿ
	Quarterly	NA	1.5 ^r	Maximum 1 st highest ⁿ
Ozone (O ₃)	8-hour	40 TPY VOC ^v	75 ppb ^w	Not typically modeled

- a. Idaho Air Rules Section 006 (definition for significant contribution) or as incorporated by reference as per Idaho Air Rules Section 107.03.b.
- b. Micrograms per cubic meter.
- c. Incorporated into Idaho Air Rules by reference, as per Idaho Air Rules Section 107.
- d. The maximum 1st highest modeled value is always used for the significant impact analysis unless indicated otherwise. Modeled design values are calculated for each ambient air receptor.
- e. Particulate matter with an aerodynamic diameter less than or equal to a nominal 10 micrometers.
- f. Not to be exceeded more than once per year on average over 3 years.
- g. Concentration at any modeled receptor when using five years of meteorological data.
- h. Particulate matter with an aerodynamic diameter less than or equal to a nominal 2.5 micrometers.
- i. 3-year mean of the upper 98th percentile of the annual distribution of 24-hour concentrations.
- j. 5-year mean of the 8th highest modeled 24-hour concentrations at the modeled receptor for each year of meteorological data modeled. For the SIL analysis, the 5-year mean of the 1st highest modeled 24-hour impacts at the modeled receptor for each year.
- k. 3-year mean of annual concentration.
- l. 5-year mean of annual averages at the modeled receptor.
- m. Not to be exceeded more than once per year.
- n. Concentration at any modeled receptor.
- o. Interim SIL established by EPA policy memorandum.
- p. 3-year mean of the upper 99th percentile of the annual distribution of maximum daily 1-hour concentrations.
- q. 5-year mean of the 4th highest daily 1-hour maximum modeled concentrations for each year of meteorological data modeled. For the significant impact analysis, the 5-year mean of 1st highest modeled 1-hour impacts for each year is used.
- r. Not to be exceeded in any calendar year.
- s. 3-year mean of the upper 98th percentile of the annual distribution of maximum daily 1-hour concentrations.
- t. 5-year mean of the 8th highest daily 1-hour maximum modeled concentrations for each year of meteorological data modeled. For the significant impact analysis, the 5-year mean of maximum modeled 1-hour impacts for each year is used.
- u. 3-month rolling average.
- v. An annual emissions rate of 40 ton/year of VOCs is considered significant for O₃.
- w. Annual 4th highest daily maximum 8-hour concentration averaged over three years. The O₃ standard was revised (the notice was signed by the EPA Administrator on October 1, 2015) to 70 ppb. However, this standard will not be applicable for permitting purposes until it is incorporated by reference *sine die* into Idaho Air Rules.

If the cumulative NAAQS impact analysis shows a violation of the standard, the permit cannot be issued if the proposed project or facility has a significant contribution (exceeding the SIL) to the modeled violation. This evaluation is made specific to both time and space. The facility or project does not have a significant contribution to a violation if impacts are below the SIL at all specific receptors showing violations during the time periods when modeled violations occurred.

Compliance with Idaho Air Rules Section 203.02 is demonstrated if: a) specific applicable criteria pollutant emissions increases are at a level defined as Below Regulatory Concern (BRC), using the criteria established by DEQ regulatory interpretation¹; or b) all modeled impacts of the SIL analysis are

below the applicable SIL or other level determined to be inconsequential to NAAQS compliance; or c) modeled design values of the cumulative NAAQS impact analysis (modeling applicable emissions from the facility and co-contributing sources, and adding a background concentration) are less than applicable NAAQS at receptors where impacts from the proposed facility/modification exceeded the SIL or other identified level of consequence; or d) if the cumulative NAAQS analysis showed NAAQS violations, the impact of proposed facility/modification to any modeled violation was inconsequential (typically assumed to be less than the established SIL) for that specific receptor and for the specific modeled time when the violation occurred.

2.5 Toxic Air Pollutant Analyses

Emissions of toxic substances are generally addressed by Idaho Air Rules Section 161:

Any contaminant which is by its nature toxic to human or animal life or vegetation shall not be emitted in such quantities or concentrations as to alone, or in combination with other contaminants, injure or unreasonably affect human or animal life or vegetation.

Permitting requirements for toxic air pollutants (TAPs) from new or modified sources are specifically addressed by Idaho Air Rules Section 203.03 and require the applicant to demonstrate to the satisfaction of DEQ the following:

Using the methods provided in Section 210, the emissions of toxic air pollutants from the stationary source or modification would not injure or unreasonably affect human or animal life or vegetation as required by Section 161. Compliance with all applicable toxic air pollutant carcinogenic increments and toxic air pollutant non-carcinogenic increments will also demonstrate preconstruction compliance with Section 161 with regards to the pollutants listed in Sections 585 and 586.

Per Section 210, if the total project-wide emissions increase of any TAP associated with a new source or modification exceeds screening emission levels (ELs) of Idaho Air Rules Section 585 or 586, then the ambient impact of the emissions increase must be estimated. If ambient impacts are less than applicable Acceptable Ambient Concentrations (AACs) for non-carcinogens of Idaho Air Rules Section 585 and Acceptable Ambient Concentrations for Carcinogens (AACCs) of Idaho Air Rules Section 586, then compliance with TAP requirements has been demonstrated.

Idaho Air Rules Section 210.20 states that if TAP emissions from a specific source are regulated by the Department or EPA under 40 CFR 60, 61, or 63, then a TAP impact analysis under Section 210 is not required for that TAP. The DEQ permit writer evaluates the applicability of specific TAPs to the Section 210.20 exclusion. TAPs emissions were not modeled for the pollutants and sources that were determined to be regulated by one of these federal standards.

3.0 Analytical Methods and Data

3.1 Modeling Methodology

This section describes the modeling methods used by the applicant's consultant, Trinity, to demonstrate compliance with applicable air quality standards.

3.1.1 Overview of Analyses

Trinity performed project-specific air impact analyses that were determined by DEQ to be reasonably representative of the facility, using established DEQ policies, guidance, and procedures. Results of the submitted analyses, in combination with DEQ’s analyses, demonstrated compliance with applicable air quality standards to DEQ’s satisfaction, provided the facility is operated as described in the submitted application and in this memorandum.

Table 4 provides a brief description of parameters used in the air impact modeling analyses.

Table 4. MODELING PARAMETERS		
Parameter	Description/Values	Documentation/Addition Description
General Facility Location	Pocatello, Idaho	The area is an attainment or unclassified area for all criteria pollutants. The area operates under the Portneuf Valley PM ₁₀ Maintenance Plan—a limited maintenance plan.
Model	AERMOD	AERMOD with the PRIME downwash algorithm, version 15181.
Meteorological Data	Pocatello	2008-2012—See Section 3.3 of this memorandum. Surface data from the Pocatello airport and upper air data from Boise, Idaho.
Terrain	Considered	Receptor, building, and emissions source stack base elevations were determined using USGS 1/3 arc second National Elevation Dataset (NED) files based on the NAD83 datum. The facility is located within Zone 12.
Building Downwash	Considered	Plume downwash was considered for the structures associated with the facility and numerous nearby structures.
Receptor Grid	Criteria Air Pollutants	
	Grid 1	10-meter spacing along the facility’s ambient air boundary and in a 1,500-meter (x) by 1,500-meter (y) rectangular grid centered on the facility.
	Grid 2	25-meter spacing in a 2,000-meter (x) by 2,000-meter (y) rectangular grid centered on Grid 1.
	Grid 3	50-meter spacing in a 4,000-meter (x) by 4,000-meter (y) rectangular grid centered on Grid 2.
	Grid 4	100-meter spacing in a 16.0 kilometer (x) by 16.0 kilometer (y) square grid centered on Grid 3.
	Toxic Air Pollutants (Benzene and Naphthalene)	
	Grid 1	10-meter spacing along the facility’s ambient air boundary and in a 1,500-meter (x) by 1,500-meter (y) rectangular grid centered on the facility. The combustion TAPs (arsenic, cadmium, formaldehyde, and nickel) were modeled with the criteria air pollutant grid which merely expanded the area of coverage.

3.1.2 Modeling Protocol

A modeling protocol was submitted to DEQ on February 26, 2016. DEQ issued a modeling protocol approval, with comments, on March 18, 2016. Project-specific air impact analyses were conducted using data and methods described in the modeling protocol and the *Idaho Air Modeling Guideline*².

3.1.3 Model Selection

Idaho Air Rules Section 202.02 requires that estimates of ambient concentrations be based on air quality models specified in 40 CFR 51, Appendix W (Guideline on Air Quality Models). The refined,

steady state, multiple-source, Gaussian dispersion model AERMOD was promulgated as the replacement model for ISCST3 in December 2005. AERMOD retains the single straight line trajectory of ISCST3, but includes more advanced algorithms to assess turbulent mixing processes in the planetary boundary layer for both convective and stable stratified layers.

AERMOD Version 15181 was used by Trinity for the modeling analyses to evaluate impacts of the facility. This is the current version of this regulatory guideline model.

3.2 Background Concentrations

A background concentration tool was used to establish ambient background concentrations for this project. A beta version of the background concentration tool was developed by the Northwest International Air Quality Environmental Science and Technology Consortium (NW AIRQUEST) and provided through Washington State University (located at <http://lar.wsu.edu/nw-AIRQUEST/lookup.html>). The tool uses regional scale modeling of pollutants in Washington, Oregon, and Idaho, with modeling results adjusted according to available monitoring data. The background is added to the design value for each pollutant and averaging period. The representative ambient background concentration values for the TLO facility's location for this project are:

- 18 parts per billion (ppb) (equal to $33.9 \mu\text{g}/\text{m}^3$) 1-hr NO_2 , and,
- 3.9 ppb (equal to $7.3 \mu\text{g}/\text{m}^3$), annual NO_2 .

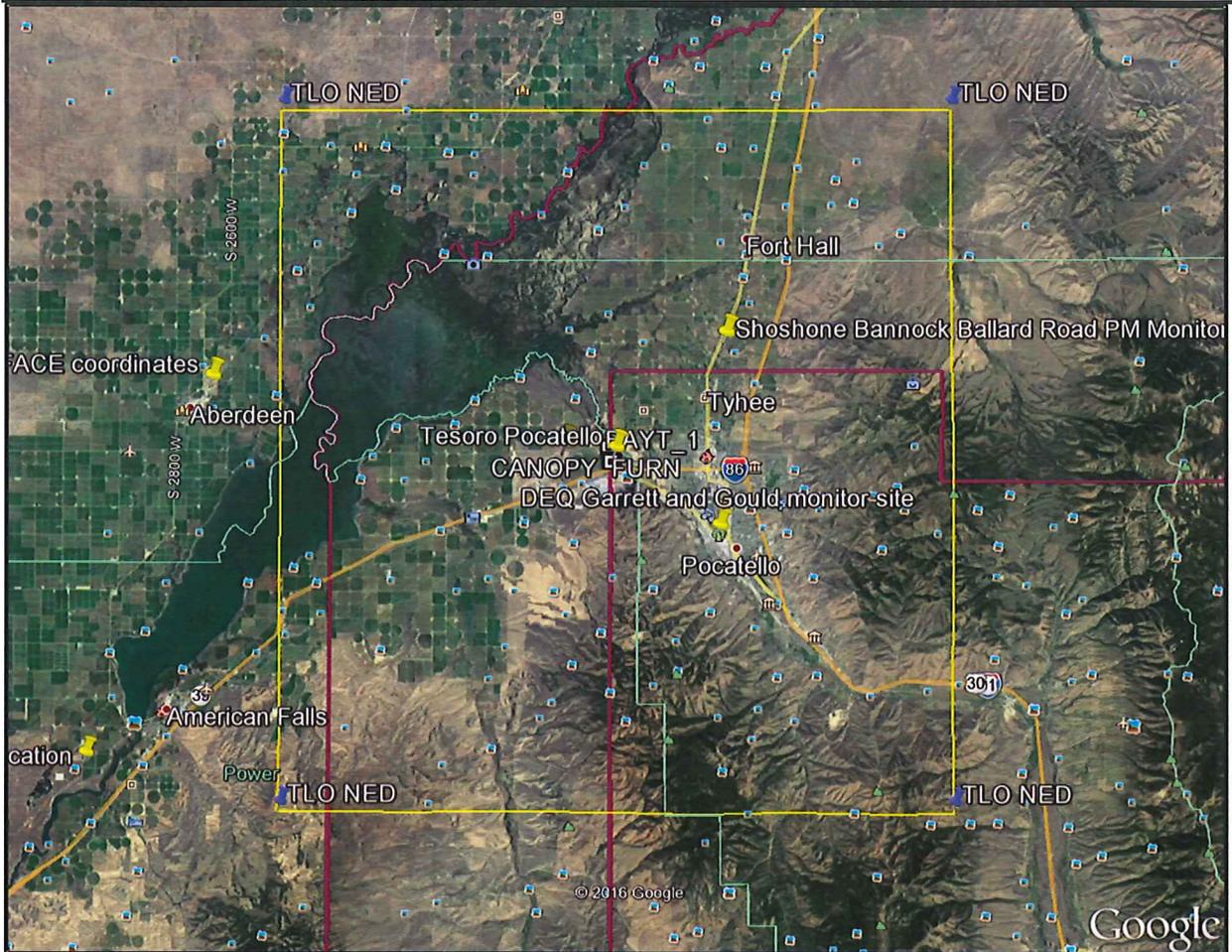
3.3 Meteorological Data

DEQ provided Trinity with a model-ready meteorological dataset processed from Pocatello surface and Boise upper air meteorological data covering the years 2008-2012. The model-ready dataset for this project was generated from monitored data collected at the Pocatello airport (FAA airport code KPIH) for surface and Automated Surface Observing System (ASOS) data. Upper air data was obtained from the National Weather Service (NWS) Station site in Boise (site code BOI). Surface characteristics were determined by DEQ staff using AERSURFACE version 13016. AERMINUTE version 11325 was used to process ASOS wind data for use in AERMET. AERMET Version 12345 was used to process surface and upper air data and generate a model-ready meteorological data input file. DEQ determined these data were representative for the TLO site and approved use of this dataset for the project, noting that the Pocatello airport is located approximately 2 miles west of the TLO site.

3.4 Terrain Effects

Trinity used a National Elevation Dataset (NED) file in GeoTiff format in the NAR-C (North American 1983 CONUS) datum, to calculate elevations of receptors. The model setup was presented in NAD83 coordinates. A 1/3 arc second file provided 10-meter resolution of elevation data. The terrain preprocessor AERMAP version 11103 was used to extract the elevations from the NED file and assign them to receptors in the modeling domain in a format usable by AERMOD. AERMAP also determined the hill-height scale for each receptor. The hill-height scale is an elevation value based on the surrounding terrain which has the greatest effect on that individual receptor. AERMOD uses those heights to evaluate whether the emissions plume has sufficient energy to travel up and over the terrain or if the plume will travel around the terrain. The project's NED file coverage is shown in Figure 1.

Figure 1. TESORO POCATELLO TERRAIN DATA FILE COVERAGE



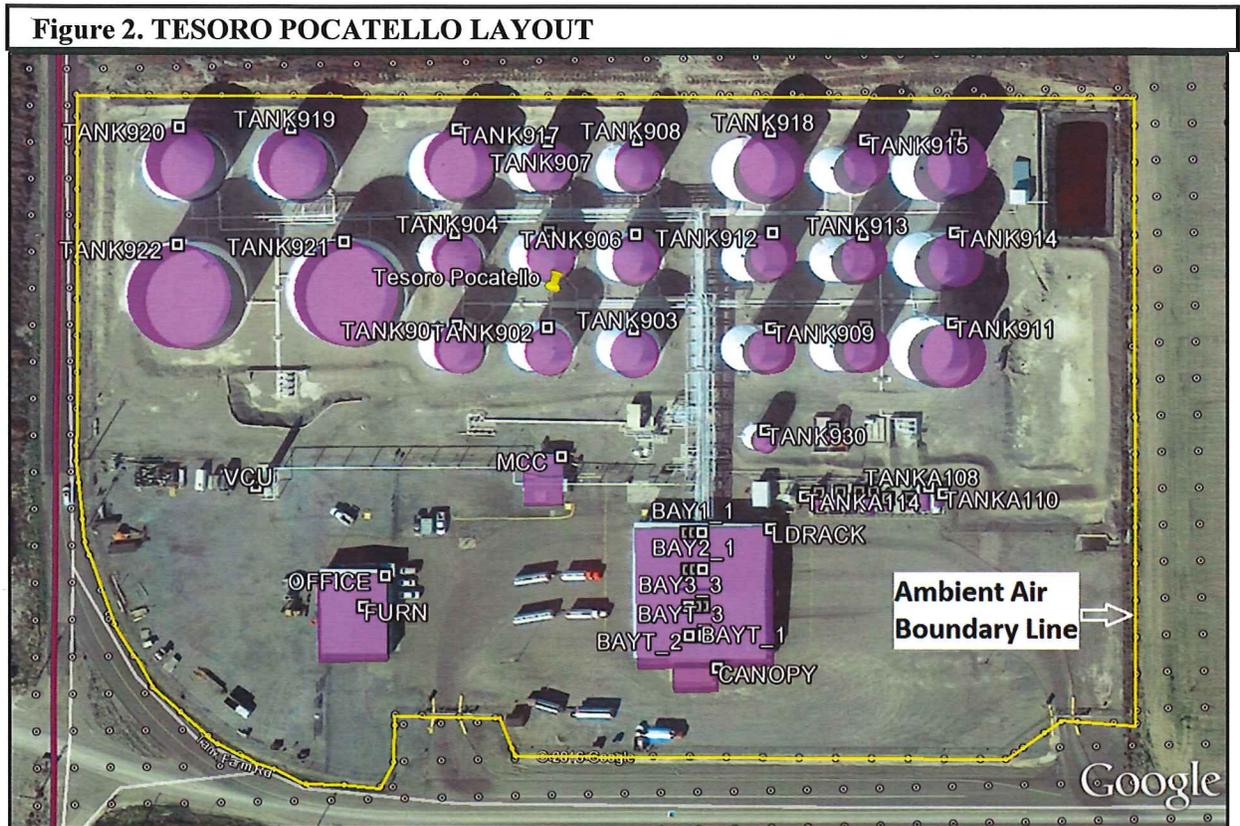
3.5 Building Downwash Effects on Modeled Impacts

Potential downwash effects on the emissions plume were accounted for in the model by using building parameters as described by Trinity. The Building Profile Input Program for the PRIME downwash algorithm (BPIP-PRIME) was used to calculate direction-specific dimensions and Good Engineering Practice (GEP) stack height information from building dimensions/configurations and release parameters for input to AERMOD. All modeled structures are depicted in Figure 2 of TLO's modeling report.

DEQ requested that documentation for the air impact analyses verify that all structures that could cause plume downwash be included in the impact assessment. EPA guidance has determined that emissions points within a distance equal to or less than five times the lesser of the building height or projected building width of the structure being examined could be subject to downwash caused by that structure. There were no nearby structures external to the TLO facility required to be included. The locations of the on-site structures appeared reasonably accurate when compared with the locations and dimensions represented in the Google earth® imagery. Building and tank dimensions were listed in Tables E-3a, E-3b, and E-3c of the project's supporting electronic spreadsheet submitted with the application. DEQ review concluded that the building downwash was appropriately evaluated.

3.6 Facility Layout

Figure 2 below shows the facility's emission sources and all structures in the air impact modeling analyses. The facility's structure locations and horizontal dimensions were adequately consistent with the web-based mapping program Google earth®. No new structures will be built as a result of this permitting action.



3.7 Ambient Air Boundary

The ambient air boundary used for this project was established along the perimeter of the fence line. The entire perimeter is fenced and gated with complete control of the area, and therefore, all areas inside the fenced area were excluded from consideration as ambient air in the impact analyses. The innermost line of dots depicted in Figure 2 above show the ambient air boundary used in the impact analyses for this project. Figure 2 of TLO's modeling report also presents the facility's ambient air boundary. DEQ review concluded that the ambient air boundary employed in the final air impact analyses appropriately precluded public access based on the criteria described in DEQ's *Modeling Guideline*².

3.8 Receptor Network

Table 4 describes the receptor network used in the submitted modeling analyses. The receptor grids used for the modeling analyses provided adequate resolution of the maximum design concentrations for the project and extensive coverage. DEQ determined that the receptor network was effective in

reasonably assuring compliance with applicable air quality standards at all ambient air locations.

3.9 Emission Rates

Review and approval of estimated emissions is the responsibility of the DEQ permit writer, and the representativeness and accuracy of emissions estimates is not addressed in this modeling memorandum. DEQ air impact analyses review included verification that the potential emissions rates provided in the emissions inventory were properly used in the model. The rates listed must represent the maximum allowable rate as averaged over the specified period.

Emissions rates used in the dispersion modeling analyses, as listed in this memorandum, should be reviewed by the DEQ permit writer and compared with those in the final emissions inventory. All modeled criteria air pollutant and TAP emissions rates must be equal to or greater than the facility's potential emissions calculated in the PTC emissions inventory or proposed permit allowable emissions rates.

3.9.1 Criteria Pollutant Emissions Rates for Significant Impact Level and Cumulative Analyses

A significant impact level (SIL) analysis was submitted as part of the NAAQS compliance demonstration. Emission rates for the SIL analyses and the cumulative impact analyses were identical. Cumulative NAAQS analyses were required for NO_x emissions to demonstrate compliance with the 1-hour NO₂ NAAQS. Impacts of NO₂ were below the annual NO₂ SIL and a cumulative NAAQS analysis was not required. TLO elected to present an annual NO₂ NAAQS demonstration in the modeling report.

Table 5 lists criteria pollutant continuous (24 hours per day) emissions rates used to evaluate NAAQS compliance for both short-term and long-term standards. These modeled rates must be equal or greater than allowable facility-wide emissions for the listed averaging period.

Table 5. EMISSIONS RATES USED IN MODELING ANALYSES			
Modeled Emissions Point	Description	NO_x^a (lb/hr)^b	
		1-Hour Average	Annual Average
VCU	Vapor Control Unit	9.0	0.74
FURN	Natural gas-fired Comfort Heater	0.010	0.010

^{a.} Nitrogen oxides.

^{b.} Pounds per hour.

3.9.2 Toxic Air Pollutant Emissions

The increase in emissions from the proposed project are required to demonstrate compliance with the toxic air pollutant (TAP) increments, with an ambient impact analyses required for any TAP having a requested potential emission rate that exceeds the screening emissions level (EL) specified by Idaho Air Rules Section 585 or 586.

This project had six TAPs with emission rates exceeding the carcinogenic screening emission rate limits (ELs) specified in Section 586 of the Idaho *Air Rules*.

Trinity modeled the hourly TAPs emission rates listed in Tables 6 and 7 for 8,760 hours per year.

Pollutant	CAS# ^a	Source	
		Vapor Control Unit	Comfort Heater
		(lb/hr) ^b	(lb/hr)
Benzene	71-43-2	2.0E-04	2.2E-07
Naphthalene ^c	NA ^d	1.5E-05	6.3E-08
Arsenic	7440-38-2	3.0E-07	2.1E-08
Cadmium	7440-43-9	1.7E-06	1.1E-07
Formaldehyde	50-00-0	1.1E-04	7.7E-06
Nickel	7440-02-0	3.2E-06	2.2E-07

- a. Chemical Abstract Service Number 7440-43-9.
b. Pounds per hour. Modeled for 8,760 hours per year for carcinogens.
c. Naphthalene regarded as a single compound of polyaromatic hydrocarbons (excluding the 7-polyaromatic hydrocarbon group).
d. A Chemical Abstract Service Number has not been assigned to the non-7-polyaromatic hydrocarbon TAP.

Source	Description	Benzene ^a (lb/hr) ^b	Naphthalene ^c (lb/hr)
BAY1_1	Bay 1 loading rack fugitives	0	4.38E-07
BAY1_2	Bay 1 loading rack fugitives	0	4.38E-07
BAY1_3	Bay 1 loading rack fugitives	0	4.38E-07
BAY2_1	Bay 2 loading rack fugitives	0	4.38E-07
BAY2_2	Bay 2 loading rack fugitives	0	4.38E-07
BAY2_3	Bay 2 loading rack fugitives	0	4.38E-07
BAY3_1	Bay 3 loading rack fugitives	0	4.38E-07
BAY3_2	Bay 3 loading rack fugitives	0	4.38E-07
BAY3_3	Bay 3 loading rack fugitives	0	4.38E-07
BAYT_1	Loading rack transmix bay fugitives	6.56E-06	5.93E-09
BAYT_2	Loading rack transmix bay fugitives	6.56E-06	5.93E-09
BAYT_3	Loading rack transmix bay fugitives	6.56E-06	5.93E-09

- a. Chemical Abstract Service Number 7440-43-9
b. Pounds per hour. Modeled for 8,760 hours per year for carcinogens.
c. Naphthalene regarded as a single compound of polyaromatic hydrocarbons (excluding the 7-polyaromatic hydrocarbon group).

3.10 Emission Release Parameters

Tables 8, 9, 10, and 11 list emissions release parameters for modeled sources.

Release Point	Description	UTM ^a Coordinates, NAD 83, Zone 12		Stack Base Elevation (m)	Stack Height (m)	Modeled Diameter (m)	Stack Gas Temperature (K) ^c	Stack Flow Velocity (m/s) ^d	Stack Release Type
		Easting (m) ^b	Northing (m)						
VCU	Vapor Control Unit	374,718	4,752,779	1,350.9	10.7	2.44	592.6	2.28	Vertical and uninterrupted
FURN	Natural gas-fired Comfort Heater	374,745	4,752,746	1,351.3	4.3	0.08	0 ^e (ambient)	1.92	Vertical and uninterrupted

- a. Universal Transverse Mercator.
b. Meters.
c. Kelvin.
d. Meters per second.
e. Specifying a temperature of absolute zero Kelvin directs AERMOD to set the stack temperature equal to the hourly ambient temperature obtained from the surface file of the meteorological data file.

Table 9. VOLUME SOURCE EMISSIONS RELEASE PARAMETERS (METRIC UNITS)

Release Point	Description	UTM ^a Coordinates, NAD 83, Zone 12		Base Elevation (m)	Release Height (m)	Initial Horizontal Dimension (m)	Initial Vertical Dimension (m)
		Easting (m) ^b	Northing (m)				
BAY1_1	Bay 1 loading rack fugitives	374,838	4,752,760	1,350.2	1.63	1.13	1.51
BAY1_2	Bay 1 loading rack fugitives	374,836	4,752,760	1,350.2	1.63	1.13	1.51
BAY1_3	Bay 1 loading rack fugitives	374,834	4,752,760	1,350.2	1.63	1.13	1.51
BAY2_1	Bay 2 loading rack fugitives	374,838	4,752,750	1,350.3	1.63	1.13	1.51
BAY2_2	Bay 2 loading rack fugitives	374,836	4,752,750	1,350.3	1.63	1.13	1.51
BAY2_3	Bay 2 loading rack fugitives	374,834	4,752,750	1,350.3	1.63	1.13	1.51
BAY3_1	Bay 3 loading rack fugitives	374,838	4,752,740	1,350.4	1.63	1.13	1.51
BAY3_2	Bay 3 loading rack fugitives	374,836	4,752,740	1,350.4	1.63	1.13	1.51
BAY3_3	Bay 3 loading rack fugitives	374,834	4,752,740	1,350.4	1.63	1.13	1.51
BAYT_1	Transmix bay fugitives	374,838	4,752,732	1,350.5	1.63	1.13	1.51
BAYT_2	Transmix bay fugitives	374,836	4,752,732	1,350.5	1.63	1.13	1.51
BAYT_3	Transmix bay fugitives	374,834	4,752,732	1,350.5	1.63	1.13	1.51

a. Universal Transverse Mercator.

b. Meters.

Table 10. POINT SOURCE EMISSIONS RELEASE PARAMETERS (ENGLISH UNITS)

Release Point	Description	UTM ^a Coordinates, NAD 83, Zone 12		Stack Base Elevation (ft) ^c	Stack Height (ft)	Modeled Diameter (ft)	Stack Gas Temperature (°F) ^d	Stack Flow Velocity (fps) ^e	Stack Release Type
		Easting (m) ^b	Northing (m)						
VCU	Vapor Control Unit	374,718	4,752,779	4,432.2	35.0	8.00	607.0	7.5	Vertical and uninterrupted
FURN	Natural gas heater	374,745	4,752,746	4,433.5	14.0	0.25	-459.7 ^f (ambient)	6.3	Vertical and uninterrupted

a. Universal Transverse Mercator.

b. Meters.

c. Feet.

d. Degrees Fahrenheit.

e. Feet per second.

f. A release temperature of absolute zero Kelvin directs AERMOD to set the stack temperature equal to the hourly ambient temperature obtained from the surface file of the meteorological data file.

Table 11. VOLUME SOURCE EMISSIONS RELEASE PARAMETERS (ENGLISH UNITS)

Release Point	Description	UTM ^a Coordinates, NAD 83, Zone 12		Base Elevation (ft) ^c	Release Height (ft)	Initial Horizontal Dimension (ft)	Initial Vertical Dimension (ft)
		Easting (m) ^b	Northing (m)				
BAY1_1	Bay 1 loading rack fugitives	374,838	4,752,760	4,429.63	5.35	3.71	4.95
BAY1_2	Bay 1 loading rack fugitives	374,836	4,752,760	4,429.69	5.35	3.71	4.95
BAY1_3	Bay 1 loading rack fugitives	374,834	4,752,760	4,429.76	5.35	3.71	4.95
BAY2_1	Bay 2 loading rack fugitives	374,838	4,752,750	4,429.99	5.35	3.71	4.95
BAY2_2	Bay 2 loading rack fugitives	374,836	4,752,750	4,430.05	5.35	3.71	4.95
BAY2_3	Bay 2 loading rack fugitives	374,834	4,752,750	4,430.15	5.35	3.71	4.95
BAY3_1	Bay 3 loading rack fugitives	374,838	4,752,740	4,430.48	5.35	3.71	4.95
BAY3_2	Bay 3 loading rack fugitives	374,836	4,752,740	4,430.48	5.35	3.71	4.95
BAY3_3	Bay 3 loading rack fugitives	374,834	4,752,740	4,430.51	5.35	3.71	4.95
BAYT_1	Transmix bay fugitives	374,838	4,752,732	4,430.74	5.35	3.71	4.95
BAYT_2	Transmix bay fugitives	374,836	4,752,732	4,430.74	5.35	3.71	4.95
BAYT_3	Transmix bay fugitives	374,834	4,752,732	4,430.77	5.35	3.71	4.95

^{a.} Universal Transverse Mercator.

^{b.} Meters.

^{c.} Feet.

DEQ's permitting policies and guidance require that each permit application have stand-alone documentation to support the appropriateness of release parameters used in the air impact analyses. The modeling report provided justification and documentation of assumptions of key parameters used to model point and volume sources.

The vapor control unit (VCU) is an enclosed thermal oxidizer. The enclosure acts as a stack and the VCU is regarded as a point source with an uninterrupted vertical release. Additional documentation supporting the stack release height of 35 feet above grade and a diameter of 8 feet was noted in the Pocatello facility application under Attachment D to the October 6, 2016 submittal. This document was a manufacturer's proposal for the VCU, based on model number ZCT-2-8-3502-3/6-X. A rated maximum capacity of 642 standard cubic feet per minute of vapor combustion was listed as a design basis. Physical design parameters for the VCU stack were listed as 8 feet for outer diameter and 35 feet in height. Exit gas temperature for the VCU was obtained from a November 9, 2001, performance test on the John Zink enclosed thermal oxidizer while controlling loading rack vapors from the transfer of gasoline and distillate fuels at the Pocatello facility. The exit temperature was an average value recorded from a thermocouple located 20 feet above the base of the VCU enclosure. DEQ determined that the modeled exit temperature of 607 degrees Fahrenheit (°F) is appropriate.

The volumetric flow rate of the VCU exhaust stream was modeled at approximately 22,600 actual cubic feet per minute (ACFM). Trinity re-evaluated the volumetric flow rate in the October 6, 2016 submittal and calculated a volumetric flow rate of 22,600 ACFM at stoichiometric conditions for the worst-case potential collected combustible vapor flow rate at the requested maximum potential loading capacity of

the loading rack. The corresponding exit velocity was calculated to be 2.28 m/s. Applying a 100% stoichiometric assumption minimized the flow rate, as no excess air flow was included in the estimate, which minimized the flow rate and exit velocity estimates. This calculation was included in the electronic spreadsheet titled Pocatello PTE v6.0.xlsx” October 6, 2016 submittal, under the “VCU Stoichiometric Combustion” tab.

Section 4.3 of TLO’s modeling report clearly describes the methods and assumptions used to determine modeling exhaust parameters for volume sources. The loading rack fugitive emissions, resulting from loading arm transfer of product from tankage and piping to the awaiting transport trailers, occur from three petroleum product loading bays and one dedicated trans-mix loading and ethanol unloading bay at the facility’s loading rack. These sources were modeled as elevated volume sources. Each bay was split into three volume sources for a total of twelve loading rack volume sources. The assumptions identified in Section 4.3 and Appendix E1 of the permit application spreadsheet appeared reasonable and accurate.

The building heater was modeled as a point source with uninterrupted vertical flow. The release height was set at the same height as the office building BPIP structure tier height. The 3-inch exit diameter appears reasonable for a 105,000 Btu/hr heater. The 18.6 ACFM flow rate was based on EPA F-Factor for natural gas combustion, per EPA Method 19, 40 CFR 60, Appendix A. The exit temperature was assumed to be ambient, which is a conservative approach.

DEQ determined that the exhaust parameters used in the modeling analyses were adequately supported and appropriate for this project.

4.0 Results for Air Impact Analyses

TLO elected to demonstrate compliance with both the annual average and 1-hour NO₂ NAAQS using the Tier 2 Ambient Ratio Method (Tier 2 ARM). This method assumes that the maximum NO₂ fraction of modeled NO_x impacts is 0.8 for 1-hour NO₂ impact analyses and 0.75 for annual NO₂ impact analyses. DEQ approval is not required for this method.

4.1 Results for Significant Impact Analyses

Table 12 provides results for the annual and 1-hour NO₂ significant impacts level analyses (SIL) analyses. Cumulative 1-hour NO₂ NAAQS impact analyses were needed because the 1-hour average SIL was exceeded. The annual NO₂ SIL was not exceeded, demonstrating that a cumulative annual NO₂ NAAQS demonstration was not required.

Pollutant	Averaging Period	Modeled Design Value Concentration ($\mu\text{g}/\text{m}^3$)^a	SIL^b ($\mu\text{g}/\text{m}^3$)	Percent of SIL
NO ₂ ^c	1-hour	90.3 ^d	7.5	1,200%
	Annual	0.50 ^e	1.0	50%

^a Micrograms per cubic meter.

^b Significant impact level.

^c Nitrogen dioxide.

^d Modeled design value is the maximum 5-year mean value of maximum 1st highest daily 1-hour maximum impacts. This SIL compliance design value was calculated using the design impact of 112.9 $\mu\text{g}/\text{m}^3$ multiplied by a factor of 0.80 for the 1-hour average Tier 2 Ambient Ratio Method (ARM) NO₂/NO_x conversion.

^e Modeled design value is the maximum annual impact of the individual years of a 5-year meteorological dataset. This SIL design value of 0.67 $\mu\text{g}/\text{m}^3$ was multiplied by a factor of 0.75 for the annual average Tier 2 Ambient Ratio Method (ARM) NO₂/NO_x conversion.

4.2 Results for Cumulative NAAQS Impact Analyses

TLO presented cumulative impact analyses for the 1-hour and annual NO₂ NAAQS. DEQ elected not to reproduce the annual average NO₂ impacts because a cumulative NAAQS analysis for the annual average NO₂ was not required because the SIL analyses maximum annual impact was below the SIL. The results for the cumulative impact analyses are listed in Table 13. Ambient impacts for the facility were below the allowable 1-hour NO₂ NAAQS.

Pollutant	Averaging Period	Modeled Design Value Concentration ($\mu\text{g}/\text{m}^3$)^a	Background Concentration ($\mu\text{g}/\text{m}^3$)	Total Ambient Impact ($\mu\text{g}/\text{m}^3$)	NAAQS^b ($\mu\text{g}/\text{m}^3$)	Percent of NAAQS
NO ₂ ^c	1-hour	83.1 ^d	33.8 ^e	116.9	188	62%

^a Micrograms per cubic meter.

^b National ambient air quality standards.

^c Nitrogen dioxide.

^d Modeled design value is the maximum 5-year mean of 8th highest 24-hour values from each year of a 5-year meteorological dataset. The design impact of 103.9 $\mu\text{g}/\text{m}^3$ was multiplied by a factor of 0.80 for the 1-hour average Tier 2 Ambient Ratio Method (ARM) NO₂/NO_x conversion.

^e NW AIRQUEST background value.

4.3 Results for Toxic Air Pollutant Impact Analyses

Table 14 presents results for TAPs modeling analyses. The impacts listed below are attributed to the facility-wide emissions. All design impacts are the maximum impacts. Annual average carcinogenic TAP impacts used the maximum impact from five individual years of meteorological data. All TAP impacts were well below the applicable increments.

Table 14. RESULTS FOR TOXIC AIR POLLUTANT ANALYSES

Pollutant	CAS^a Number	Averaging Period	Maximum Modeled Concentration ($\mu\text{g}/\text{m}^3$)^b	AACC^c ($\mu\text{g}/\text{m}^3$)	Percent of Increment
Benzene	71-43-2	Annual	3.0E-03	1.2E-01	3%
Naphthalene ^d	NA ^e	Annual	3.4E-04	1.4E-02	2%
Arsenic	7440-38-2	Annual	1.1E-06	2.3E-04	<1%
Cadmium	7440-43-9	Annual	6.0E-06	5.6E-04	1%
Formaldehyde	50-00-0	Annual	4.1E-04	7.7E-02	<1%
Nickel	7440-02-0	Annual	1.1E-05	4.2E-03	<1%

a. Chemical Abstract Service

b. Micrograms per cubic meter.

c. Ambient Concentration for Carcinogens (Toxic Air Pollutant allowable increments listed in Idaho Air Rules Section 586).

d. Naphthalene as a single compound of polyaromatic hydrocarbons (excluding the 7-polyaromatic hydrocarbon group).

e. A Chemical Abstract Service Number has not been assigned to the non-7-polyaromatic hydrocarbon TAP.

5.0 Conclusions

The ambient air impact analyses demonstrated to DEQ's satisfaction that emissions from the Tesoro Logistics Pocatello facility will not cause or significantly contribute to a violation of any NAAQS and will not exceed allowable TAP increments.

References

1. *Policy on NAAQS Compliance Demonstration Requirements of IDAPA 58.01.01.203.02 and 01.403.02*. Idaho Department of Environmental Quality Policy Memorandum. Tiffany Floyd, Administrator, Air Quality Division, June 10, 2014.
2. *State of Idaho Guideline for Performing Air Quality Impact Analyses*. Idaho Department of Environmental Quality. September 2013. State of Idaho DEQ Air Doc. ID AQ-011. Available at <http://www.deq.idaho.gov/media/1029/modeling-guideline.pdf>.

APPENDIX C – FACILITY DRAFT COMMENTS

No comments were received from the facility.

APPENDIX D – PROCESSING FEE

PTC Processing Fee Calculation Worksheet

Instructions:

Fill in the following information and answer the following questions with a Y or N. Enter the emissions increases and decreases for each pollutant in the table.

Company: Tesoro Logistics Operations LLC -
Address: 1189 Tank Farm Road
City: Pocatello
State: Idaho
Zip Code: 83204
Facility Contact: John Roark
Title: Vice President, Mid-Continent
AIRS No.: 077-00023

- N** Does this facility qualify for a general permit (i.e. concrete batch plant, hot-mix asphalt plant)? Y/N
- Y** Did this permit require engineering analysis? Y/N
- N** Is this a PSD permit Y/N (IDAPA 58.01.01.205.04)

Emissions Inventory			
Pollutant	Annual Emissions Increase (T/yr)	Annual Emissions Reduction (T/yr)	Annual Emissions Change (T/yr)
NO _x	3.2	0	3.2
SO ₂	0.0	0	0.0
CO	1.8	0	1.8
PM10	0.2	0	0.2
VOC	0.0	1.53	-1.5
TAPS/HAPS	0.0	0	0.0
Total:	0.0	1.53	3.7
Fee Due	\$ 2,500.00		

Comments:

