CERTIFIED MAIL NO.

RECEIVED
AUG 1 1 2008
Department of Environmental Quality
State Air Program

TESORO
Tesoro Refining and Marketing Company
300 Concord Plaza Drive
San Antonio, TX 78216-6999
210 828 8484 Phone
210 569 5125 Fax

August 11, 2008

Mr. Bill Rogers
Regional Permit Program Coordinator
Idaho Department of Environmental Quality
Air Quality Division
Stationary Source Program
1410 North Hilton
Boise, ID 83706-1255

RE: Submittal of Pre-Permit Construction and Permit to Construct Application
Permit-to-Construct #P-050055
Tesoro Refining and Marketing Company – Boise Terminal

Dear Mr. Rogers:

Enclosed is an application for a Permit-to-Construct (PTC) under the Pre-Permit Construction (PPC) program for the modifications required to load denatured ethanol, and blends of gasoline and denatured ethanol at Tesoro Refining and Marketing Company's (Tesoro's) Boise Terminal. Tesoro is not requesting an increase in the gasoline throughput limit identified in the PTC No. P-050055. Tesoro is requesting that the aggregate permitted throughput limit apply to gasoline, denatured ethanol and blends of gasoline and denatured ethanol. Due to the fact that denatured ethanol has a vapor pressure that is significantly less than that of gasoline, volatile organic compounds (VOC) emissions are not expected to increase as a result of this project. However, the modifications will contribute to an increase in toxic air pollutant (TAP) emissions.

Tesoro is hereby requesting a 15-Day PPC approval for this project. The attached application satisfies both the PTC and PPC submittal requirements as outlined under Idaho Administrative Procedures Act (IDAPA) 58.01.01.200 through 223. Tesoro understands the PPC approval will allow Tesoro to begin construction before obtaining a final PTC at Tesoro's own risk, should the Idaho Department of Environmental Quality (IDEQ) decide not to issue a final PTC. This letter satisfies the requirement under IDAPA 58.01.01.213.01(c), which states that "a letter requesting the ability to construct before obtaining the required permit to construct" must be included in the PPC approval application.

Lastly, enclosed with this letter and application is the application processing fee of $1,000 as required by IDAPA 58.01.01.224. Additional processing fees will be submitted as requested by the IDEQ.

If you have any questions concerning this submittal, please feel free to contact me at bneighbors@tsocorp.com or (210) 626-6327.

Sincerely,

Brooks Neighbors

Mr. Brooks Neighbors
Environmental Compliance Specialist

Enclosures

cc: Kevin Schilling, Idaho Department of Environmental Quality
Jeff Carter - Tesoro (Boise)
Bernie Frieh - Tesoro (SAT)
Brooks Neighbors - Tesoro (SAT)
Chris Drechsel - Tesoro - Auburn
Melissa Hillman - Trinity Consultants

Compliance Certification

Based on the information and belief formed after reasonable inquiry, I certify the statements and information in this document are accurate and complete.

Jeff J. Carter
Terminal Manager

8-11-08
Date

INTERNAL USE ONLY - STATIONARY SOURCE PROGRAM
FEES RECEIVED FROM FACILITY

Date Stamp (Date Received in Program Office)	RECEIVED AUG 1 1 2008 Department of Environmental Quality State Air Program
Facility Name	TESORO
Facility Location	BOISE
Fee Type:	
PTC Application Fee	☑ Amount Received: $1,000
PTC Processing Fee	☐ Amount Received:
T2 Processing Fee	☐ Amount Received:
PBR Registration Fee	☐ Amount Received:
Check Number	1623186
Check Date	7/31/08
Total Amount of Check	$1,000
Signature/Date of Person Receiving	P. Heitman 8/11/08

15 DAY PRE-PERMIT CONSTRUCTION APPROVAL / PERMIT TO CONSTRUCT APPLICATION
TESORO REFINING AND MARKETING COMPANY
BOISE TERMINAL

Prepared for:

Tesoro Refining and Marketing Company

TESORO

Prepared by:

Won Choe ▪ Consultant
Melissa Hillman ▪ Senior Consultant

TRINITY CONSULTANTS
20819 72nd Avenue South
Suite 610
Kent, WA 98032
(253) 867-5600

August 2008

Project #084801.0027

Trinity Consultants

LIST OF TABLES

1. INTRODUCTION

Tesoro Refining and Marketing Company (Tesoro) owns and operates a bulk fuel terminal in Boise, Idaho (Boise Terminal). The Boise Terminal currently operates under the Permit to Construct (PTC) No. P-050055 issued by the Idaho Department of Environmental Quality (IDEQ) on May 23, 2006. Tesoro proposes to store denatured ethanol, and blends of gasoline and denatured ethanol (gasoline/denatured ethanol blends) at the Boise Terminal. Tesoro is proposing to make the following change at the Boise Terminal:

- Construction Activity and Change in Service: The loading rack (Emission Unit #1) will have the added flexibility to load denatured ethanol or denatured ethanol/gasoline blends, in addition to the current permitted liquid products. In order to load denatured ethanol or denatured ethanol/gasoline blends, construction activities will need to occur such as adding pumps, skids, hoses, piping, meters, strainers and valves to the loading rack.

No owner or operator in the state of Idaho may commence construction or modification of any stationary source without obtaining a PTC from IDEQ, which satisfies Idaho Administrative Procedures Act (IDAPA) 58.01.01.200 through 223. As outlined under IDAPA 58.01.01.213, the owner or operator may commence construction before obtaining the required final PTC by obtaining pre-permit construction approval from IDEQ. This application serves as both the PTC application and the 15-Day Pre-Permit Construction (PPC) Approval application.

Tesoro requests IDEQ to review this application in accordance with both PTC and PPC submittal requirements as outlined under IDAPA 58.01.01.202 and IDAPA 58.01.01.213, respectively. Upon receipt of the PPC approval letter issued by IDEQ, construction or modifications may commence prior to receiving the final PTC. Tesoro understands the PPC approval allows Tesoro to begin construction at Tesoro's own risk, should IDEQ decide to not issue a final PTC.

Tesoro requests that the PTC No. P-050055 be amended rather than have a new PTC issued by the IDEQ. As such, Tesoro proposes the following changes to the existing permit conditions. Note that the words in bold represent the necessary updates to the existing permit conditions.

1. Permit Condition 2.6: "The maximum annual motor gasoline, **motor gasoline/denatured ethanol blends, and denatured ethanol** throughput of the loading rack shall not exceed 280,000,000 gallons per year."
2. Permit Condition 2.8: "The permittee shall only use the loading rack to dispense motor gasoline, **denatured ethanol, motor gasoline/denatured ethanol blends**, jet fuels, No. 1 diesel fuel, No. 2 diesel fuel, or any mixture of the listed fuels."

Tesoro has enclosed a payment of $1,000 for the application fee along with this application package. As outlined in IDAPA 58.01.01.225, additional processing fees will be submitted as requested by IDEQ.

1.1 Facility Description

Tesoro operates a petroleum products terminal located in Boise, Idaho. The facility consists of a three lane truck loading rack with a maximum loading rate of 324,000 gallons per hour, eight storage tanks, and various piping components such as valves, pumps, flanges, and other insignificant components. A plot plan and area map of the facility is included as Appendix A.

Gasoline and diesel tanker truck loading is done at the loading rack, where emissions are controlled by the vapor combustion unit (VCU). The VCU is a source of volatile organic compounds (VOC), nitric oxides (NO_x), and carbon monoxide (CO) emissions. VOC emissions also occur from product storage and loading, and as fugitives from equipment leaks.

1.2 Project Description

The loading rack has twenty loading arms that are used to load tank trucks. Tesoro would like to start loading denatured ethanol and gasoline/denatured ethanol blends at the loading rack. The gasoline/denatured ethanol blends will be mixed through two different operations: "splash blending" and "ratio blending." Splash blending is accomplished by first loading the tank truck with gasoline, and then loading the truck with denatured ethanol. The blending occurs inside the tank truck as the truck leaves the facility. Ratio blending is accomplished by blending the denatured ethanol and gasoline at the loading rack, and then loading the truck with the gasoline/denatured ethanol blend. Please note that Tesoro would like the flexibility to load denatured ethanol and any percentage of the gasoline/denatured ethanol blend. Worst-case calculations are included in Section 2 to demonstrate that VOC emissions will not increase as a result of this project. Additionally, the toxic air pollutant (TAP) analysis is performed assuming worst-case emissions.

Currently, the total facility gasoline throughput limit is 280,000,000 gallons per year as cited in Condition 2.6, Throughput Limits, of PTC No. P-050055. Tesoro would like to cap the aggregate throughput limit of 280,000,000 gallons for both denatured ethanol and gasoline.

Once the proposed project is completed, the loading rack will have the added capability to load denatured ethanol and gasoline/denatured ethanol blends. As part of this service change, additional piping and new meters will be installed to facilitate the blending. The piping will run from the storage tanks to a meter, then to the loading rack, where the ratio blending will occur and the gasoline/denatured ethanol blend will be loaded onto tanker trucks.

The proposed modifications to the loading rack will affect emissions from the loading rack and the fugitive equipment leaks. Ethanol has a vapor pressure of 0.870 psi at 70 °F and gasoline has a vapor pressure of 6.2 psi at 70 °F.[1] Since ethanol's vapor pressure is a magnitude smaller than gasoline's vapor pressure and the total gasoline and denatured ethanol throughput will not exceed the current permit limit of 280,000,000 gallons per year, the VOC emissions from the VCU, which controls emissions form the loading rack, are not expected to increase.[2] However, ethanol emissions will increase from the loading rack because denatured ethanol and gasoline/denatured ethanol blends are currently not permitted to be loaded at the loading rack. The emissions associated with the proposed project are calculated using the methodologies described in the following sub-sections. Detailed emission calculations for the loading rack and fugitive equipment are presented in Appendix B of this report.

2.1 LOADING RACK

All petroleum products delivered to the facility will be loaded onto tank trucks at the loading rack. For conservatism, the potential annual ethanol emissions from the loading rack are estimated assuming the denatured ethanol throughput is equal to the maximum throughput limit of 280,000,000 gallons per year. Additionally, the potential short term (hourly) ethanol emissions from the loading rack are estimated assuming the denatured ethanol throughput is equal to the maximum rated capacity of the loading rack, 324,000 gallons per hour. There are two routes that emissions are emitted to the atmosphere while loading ethanol into tanker trucks: fugitive emissions and emissions from the VCU. It has been assumed that 98.7% of the vapors generated from loading the tanker truck is captured and routed to the VCU for destruction. The remaining 1.3% is emitted as fugitive uncontrolled emissions.[3]

[1] Ethanol vapor pressure from AP-42, *Compilation of Air Pollutant Emission Factors*, Table 7.1-3 – Physical Properties of Selected Petrochemicals, dated November 2006. Gasoline vapor pressure from AP-42, Table 7.1-2 – Properties (M_V,P_{VA},W_L) of Selected Petroleum Liquids, dated November 2006.

[2] It is assumed that the VCU will have the same control efficiency while loading ethanol or gasoline.

[3] Collection efficiency from AP-42, *Compilation of Air Pollutant Emission Factors*, Section 5.2, Transportation and Marketing of Petroleum Liquids, dated June 2008.

Controlled ethanol emissions are calculated using the controlled emission factor of 35 mg total organic compound (TOC) per liter of gasoline loaded.[4] Fugitive ethanol emissions are calculated using a 98.7% collection efficiency for emissions routed to the VCU in conjunction with the controlled ethanol emissions. An example calculation is provided below.

$$E_{\text{VCU, Controlled}}\left(\frac{\text{lb}}{\text{hr}}\right) = 324{,}000\frac{\text{gallons}}{\text{hour}} * 35\frac{\text{mg}}{\text{L}} * \frac{1\text{ lb}}{453{,}592.4\text{ mg}} * \frac{1\text{ L}}{0.264\text{ gallons}} = 94.6\frac{\text{lb}}{\text{hr}}$$

$$E_{\text{Fugitive}}\left(\frac{\text{lb}}{\text{hr}}\right) = 94.6\frac{\text{lb}}{\text{hr}} * \frac{1}{98.7\%\text{ collection efficiency}} * 1.3\%\text{ vapor emitted as fugitives} = 1.2\frac{\text{lb}}{\text{hr}}$$

$$E_{\text{Total, controlled}}\left(\frac{\text{lb}}{\text{hr}}\right) = E_{\text{VCU, Controlled}} + E_{\text{Fugitive}} = 95.9\frac{\text{lb}}{\text{hr}}$$

Uncontrolled ethanol emissions are back-calculated using the VCU control efficiency of 95.1% for TOC and the calculated controlled ethanol emissions.[5] An example calculation is provided below:

$$E_{\text{VCU, Uncontrolled}}\left(\frac{\text{lb}}{\text{hr}}\right) = \frac{94.6\frac{\text{lb}}{\text{hr}}}{(1 - 95.1\%)} = 1{,}931.4\frac{\text{lb}}{\text{hr}}$$

$$E_{\text{Fugitive}}\left(\frac{\text{lb}}{\text{hr}}\right) = 94.6\frac{\text{lb}}{\text{hr}} * \frac{1}{98.7\%\text{ collection efficiency}} * 1.3\%\text{ vapor emitted as fugitives} = 1.2\frac{\text{lb}}{\text{hr}}$$

$$E_{\text{Total, Uncontrolled}}\left(\frac{\text{lb}}{\text{hr}}\right) = E_{\text{VCU, Uncontrolled}} + E_{\text{Fugitive}} = 1{,}931.4\frac{\text{lb}}{\text{hr}} + 1.2\frac{\text{lb}}{\text{hr}} = 1932.6\frac{\text{lb}}{\text{hr}}$$

As mentioned in Section 1.2, Tesoro is not requesting an increase in total facility gasoline throughput as part of this propose project, but would rather cap the aggregate throughput limit for both denatured ethanol and gasoline. As such, gasoline throughput is expected to decrease as denatured ethanol throughput increases. Therefore, actual VOC emissions are expected to decrease because ethanol has a vapor pressure that is a magnitude less than gasoline's vapor pressure. Potential controlled ethanol emissions from the loading rack will be 96 pounds per hour and 41 tons per year.[6] The detailed emissions calculation is included in Appendix B.

2.2 FUGITIVE COMPONENTS

The proposed modifications will require the installation of several equipment components that have the capacity to leak a small amount of ethanol or gasoline during operation. The number of equipment components that will be installed as part of the proposed project are shown below in Table 2-1.

---

[4] This emission factor is required per Permit Condition 2.5 of PTC No. P-050055.

[5] The TOC control efficiency was determined from the Performance Test on the VCU, dated August 31, 2005. The results are included in Appendix H.

[6] VOC emissions from the loading rack are controlled by the VCU. It is assumed the VCU will have a similar removal efficiency for ethanol.

TABLE 2-1. NUMBER OF FUGITIVE COMPONENTS REQUIRED FOR THE PROPOSED MODIFICATION

Equipment Component	Equipment Counts
Pump Seals	2
Fittings	1
Valves	32

Emission factors, from EPA's *Protocol for Equipment Leak Emission Estimates*, published in November 1995, are used to calculated emissions from the equipment components shown in Table 2-1.

Anticipated total emissions from fugitive equipment leaks will be 0.024 tpy (0.01 lbs/hr) as a result of the addition of the equipment shown above in Table 2-1. Detailed fugitive emission calculations are included in Appendix B of this report.

2.3 TOTAL EMISSIONS

The total emissions associated with the proposed projected are presented in Table 2-2 below.

TABLE 2-2. TOTAL POTENTIAL EMISSIONS FROM THE PROPOSED MODIFICATION

Source Description	Ethanol (or VOC) Emissions [a] (tpy)
Loading Rack[b]	41.431
Equipment Fugitives	0.024
Total	**41.455**

[a] Ethanol is defined as a regulated TAP per IDAPA 58.01.01.585.

[b] Potential ethanol emissions from the loading rack are calculated assuming that the denatured ethanol throughput is equal to the maximum gasoline throughput limit of 280,000,000 gallons per year. VOC emissions do not increase as a result of this project.

The following sections examine the applicable state and federal regulatory requirements for the proposed project.

3.1 PRE-PERMIT CONSTRUCTION APPROVAL

As outlined under IDAPA 58.01.01.213.01, the PPC approval is available for "non-major sources and non-major modifications and for new sources or modifications". The pre-project Boise terminal is not a major source nor is the proposed project a major modification as defined in IDAPA 58.01.01.205. Thus, Tesoro is requesting for IDEQ to review this application in accordance with the PPC submittal requirements as outlined under IDAPA 58.01.01.213.

The following items are included or addressed in this application in accordance with the *15-Day Pre-Permit Construction Approval Application Completeness Checklist* developed by IDEQ based on the PPC submittal requirements contained in IDAPA 58.01.01.213. This checklist is included in Appendix G.

- **Proof of eligibility** – As described in this section, the Tesoro Boise terminal is eligible for the PPC approval.
- **Request to construct before obtaining a PTC** – A statement requesting the ability to construct prior to obtaining the final PTC is included in the cover letter of this application.
- **Consult with IDEQ Representative** – A meeting took place on June 24, 2008 between Bill Rogers (IDEQ), Brooks Neighbors (Tesoro), and Melissa Hillman (Trinity Consultants). This satisfies the requirement cited in IDAPA 58.01.01.213.01.c.
- **Notice of informational meeting** – A public informational meeting has been scheduled on August 14, 2008 in Boise, Idaho. A copy of the public notice for this meeting is included as Appendix C.
- **Submit an Ambient Air Quality Modeling Protocol** – The ambient air quality modeling protocol was submitted to Mr. Kevin Schilling (IDEQ) by Melissa Hillman (Trinity Consultants) on July 25, 2008. A copy of the protocol and the approval letter from IDEQ is included in Appendix I.
- **Process description** – A description of the process for which the PPC and PTC approval is being requested for is provided in Section 1.2. A process flow diagram is included as Appendix A.
- **Equipment list** – A description of all the equipment for which the PPC approval is being requested for is provided in Section 1.2.
- **Scaled plot plan** - A scaled plot plan is included as Appendix A.
- **Proposed emission limits and modeled ambient concentration for all regulated air pollutants** – A description of the proposed emission limits and the modeled ambient concentrations are provided in Section 2 and Section 4, respectively, of this application.

- **Restrictions on a source's potential to emit (PTE)** – A description of the throughput and the resulting emissions for the emission units affected by the proposed project is included in Section 2 of this application.
- **List of all applicable air quality rules and regulations** – Section 3 of this application examines all the applicable local, state, and federal regulatory requirements for the proposed project.
- **Certification of PPC approval application** – A certification signed by a responsible official is included as Appendix D.

3.2 Prevention of Significant Deterioration (New Source Review)

An emission source, located in attainment or unclassifiable areas, is subject to the Prevention of Significant Deterioration (PSD) permitting program if the new installation is either a major modification to an existing major source, or is a major source unto itself as outlined under IDAPA 58.01.01.205. The pre-project Boise Terminal is not classified as a major source as defined by IDAPA 58.01.01.205. As such, PSD applicability is triggered only if the proposed construction project would constitute a major stationary source by itself. In other words, the proposed modifications must increase emissions of a regulated air pollutant by more than the major source threshold to trigger PSD review. The PSD major source thresholds are either 100 tpy or 250 tpy of any criteria air pollutant, depending on the facility's SIC code. Since the Boise Terminal's storage capacity is less than 300,000 barrels, the 250 tpy PSD major source threshold is used to determine PSD applicability. PSD review is not required for the proposed project, as the emission increase from the project will not be in excess of the 250 tpy PSD major source threshold, as demonstrated in Table 2-2.[7]

3.3 Title V (Tier I) Air Operating Permit Program

As outlined under IDAPA 58.01.01.301.01, a Title V (Tier I) Operating Permit is required in order to operate a Tier I source. A Tier I source is defined as any of the following under IDAPA 58.01.01.006:

- Any source located at a major facility as defined in Section 008
- Any source subject to New Source Performance (NSPS) requirements under 40 CFR 60 and required to obtain a Part 70 permit (Title V)
- Any source subject to National Emissions Standards for Hazardous Air Pollutants (NESHAP) requirements under 40 CFR 61 and 63, and required to obtain a Part 70 permit (Title V)
- Any phase II source
- Any source in a source category designated by the Department

The definition of major facility is specified in IDAPA 58.01.01.008.10 as any facility that emits or has the potential to emit 100 tpy of any criteria pollutant, 10 tpy or more of any single Hazardous Air Pollutants (HAP), or 25 tpy or more of total HAP. The pre-project Boise Terminal is not a major facility nor will the Boise Terminal become a major facility as a result of the proposed project. As discussed in Section 3.4 and Section 3.5, of this application, Tesoro is currently subject to NSPS and NESHAP

[7] The facility falls under the designation of "petroleum storage and transfer units with at total storage capacity exceeding 300,000 barrels" which is identified in 40 CFR § 52.21(b)(1)(i)(a) as having a major source PSD threshold of 100 tpy.

requirements. However, Tesoro is not required to obtain a Title V permit due to the applicable NSPS or NESHAP. In addition, Tesoro is not a phase II source. Thus, Tesoro is not subject to the Tier I program.

3.4 NEW SOURCE PERFORMANCE STANDARDS

NSPS apply to certain types of equipment that are newly constructed, modified, or reconstructed after a given applicability date. The potentially applicable NSPS subparts are discussed in the following sections. Only the NSPS subparts that may be potentially applicable to the loading rack are addressed in this section.

3.4.1 NSPS SUBPART XX

NSPS Subpart XX, *Standards of Performance for Bulk Gasoline Terminals,* applies to loading racks at bulk gasoline terminals which deliver liquid product into gasoline tank trucks for which construction or modification commenced after December 17, 1980. Per 40 CFR 60.500(a), the affected facility to which the provisions of NSPS Subpart XX apply is the total of all the loading racks at a bulk gasoline terminal which deliver liquid product to gasoline tank trucks. The Boise Terminal has one loading rack at the facility; thus, this emission unit is the affected facility under NSPS Subpart XX.

The pre-project facility is subject to the provisions of NSPS Subpart XX because the loading rack was modified in 2003.[8] As part of the historical modification, the VCU was installed to control total organic compounds (TOC) emissions from the loading rack. A performance test on the VCU was conducted on August 31, 2005 to demonstrate compliance with the emission limit of 35 mg/liter of gasoline loaded, as outlined under NSPS Subpart XX. A copy of the performance test result is attached as Appendix H as reference. As mentioned in Section 2, the VOC emissions are not expected to increase as a result of the proposed project. Thus, it is anticipated that the proposed project will not cause an exceedance of the TOC emission limit. Additionally, Tesoro will continue to comply with the operational, monitoring, and reporting requirements outlined under NSPS Subpart XX.

3.5 NATIONAL EMISSIONS STANDARDS FOR HAZARDOUS AIR POLLUTANTS

National Emissions Standards for Hazardous Air Pollutants (NESHAPs) have been established in 40 CFR 63 to control the emissions of HAPs. NESHAP regulations establish Maximum Achievable Control Technology (MACT) standards for specific types of equipment at qualifying facilities. The potentially applicable NESHAP subparts are discussed in the following sections. Only those NESHAPs that may be applicable to the loading rack are addressed in this report.

3.5.1 NESHAP SUBPART R

NESHAP Subpart R, *National Emission Standards for Gasoline Distribution Facilities (Bulk Gasoline Terminals and Pipeline Breakout Stations),* applies to each bulk gasoline terminal, except those bulk gasoline terminals which are not located at major sources of HAP emissions.

[8] In 2003, Tesoro added an additional loading arm to the loading rack, triggering the requirements of NSPS Subpart XX.

Under Section 112(a) of the Clean Air Act, the term "major source" is defined as any stationary source or group of stationary sources located within a contiguous area and under common control that emits or has the potential to emit considering controls, in the aggregate, 10 tpy or more of any HAP or 25 tpy or more of any combination of HAPs. Because the Boise Terminal is not currently a major source of HAP and HAP emissions will not increase as a result of the proposed project, NESHAP Subpart R does not apply.

3.5.2 NESHAP SUBPART EEEE

NESHAP Subpart EEEE, *National Emission Standards for Organic Liquids Distribution (Non-Gasoline),* applies to organic liquids distribution operations located at a major source of HAP emissions. Under Section 112(a) of the Clean Air Act, the term "major source" is defined as any stationary source or group of stationary sources located within a contiguous area and under common control that emits or has the potential to emit considering controls, in the aggregate, 10 tpy or more of any HAP or 25 tpy or more of any combination of HAPs. Because the Boise Terminal is not currently a major source of HAP and HAP emissions will not increase as a result of the proposed project, NESHAP Subpart EEEE does not apply.

3.5.3 NESHAP SUBPART BBBBBB

NESHAP Subpart BBBBBB, *NESHAP for Source Category: Gasoline Distribution Bulk Terminals, Bulk Plants, and Pipeline Facilities*, applies to each area source bulk gasoline terminal that is not subject to NESHAP Subpart R or NESHAP Subpart CC. The following definitions are pertinent to determining NESHAP Subpart BBBBBB applicability:

> ***Bulk gasoline terminal****: any gasoline storage and distribution facility that receives gasoline by pipeline, ship or barge, or cargo tank and has a gasoline throughput of 20,000 gallons per day or greater. Gasoline throughput shall be the maximum calculated design throughput as may be limited by compliance with an enforceable condition under Federal, State, or local law and discoverable by the Administrator and any other person*

The Boise Terminal received 98,951,993 gallons of gasoline in 2007 (an average of 271,101 gallons per day) and therefore qualifies as a bulk gasoline terminal as defined above. Because the Boise Terminal is not subject to NESHAP Subpart R or NESHAP Subpart CC, and is a gasoline storage and distribution facility that has a gasoline throughput of greater than 20,000 gallons per day, NESHAP Subpart BBBBBB is applicable.

Per 40 CFR 63.11082, the affected source subject to NESHAP Subpart BBBBBB provisions is the area source bulk gasoline terminal, which includes gasoline storage tanks, gasoline loading racks, vapor collection-equipped gasoline cargo tanks, and equipment components in vapor or liquid gasoline service. Facilities must comply with NESHAP Subpart BBBBBB by different dates depending if the affected source is new, reconstructed, or existing. Per NESHAP Subpart A, the following definitions are important when characterizing if the affected source is new, reconstructed, or existing:

New Source: *any affected source the construction or reconstruction of which is commenced after the Administrator first proposes a relevant emission standard under this part establishing an emission standard applicable to such source.*

Reconstructed Source: *unless otherwise defined in a relevant standard, means the replacement of components of an affected or a previously nonaffected source to such an extent that the fixed capital cost of the new components exceeds 50 percent of the fixed capital cost that would be required to construct a comparable new source ...*

Existing Source: *any affected source that is not a new source.*

The loading rack, all storage tanks that store gasoline, and equipment components in gasoline service will be subject to NSPS BBBBBB. The affected source does not fall under the definition of a new source because the terminal was not reconstructed or constructed after November 9, 2006. The physical changes to the loading rack associated with the proposed modification will not exceed 50 percent of the fixed capital cost that would be required to construct a comparable new affected source. Thus, the proposed changes that will occur to the affected source (i.e. the loading rack and the equipment components) will not constitute reconstruction.

As such, the Boise Terminal is considered an existing source under NESHAP Subpart BBBBBB. Therefore, the Boise Terminal has until January 10, 2011 to comply with the provisions of NESHAP Subpart BBBBBB per 40 CFR 63.11083(b). Tesoro submitted the required initial notification to IDEQ, which stated that the Boise Terminal is subject to NESHAP Subpart BBBBBB on May 09, 2008.

3.6 Other Idaho Rules – IDAPA 58.01.01

The applicability requirements of following subsections of the *Rules for the Control of Air Pollution in Idaho* to the Tesoro Boise Terminal are addressed below.

3.6.1 Subsection 123: Certification of Documents

IDAPA 58.01.01.123 requires that all documents the applicant submits to the IDEQ will contain a certification by a responsible official. "The certification shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete." An appropriate certification statement is included Appendix D.

3.6.2 Subsection 155: Circumvention

IDAPA 58.01.01.155 states "No person shall willfully cause or permit the installation or use of any device or use of any means that conceals emissions of pollutants that would otherwise violate the provisions of this chapter without resulting in a reduction in the total amount of emissions." Tesoro will not conceal emissions of pollutants.

3.6.3 SUBSECTIONS 200-228: PERMIT TO CONSTRUCT REQUIREMENTS

In accordance with IDAPA 58.01.01.201, a permit to construct as outlined under subsections 200 through 228 is not required if the facility complies with Section 213 and obtains the required permit to construct. Tesoro has requested a review under Section 213, Pre-Permit Construction as further described in Section 3.1 of this application. Therefore, the requirements of IDAPA 58.01.01.200-228 are satisfied by complying with the requirements of subsection 213.

Subsection 224 (Permit to Construct Application Fee) and Subsection 225 (Permit to Construct Processing Fee) apply to the proposed project at the terminal. A $1,000 application fee is submitted with this application. Additional processing fees will be submitted as requested by IDEQ.

3.6.4 SUBSECTION 213: PRE-PERMIT TO CONSTRUCT REQUIREMENTS

In accordance with IDAPA 58.01.01.213, a pre-permit to construct must be applied for in accordance with Subsections 202.01.a, 202.02, and 202.03. For new or modified stationary sources, including the proposed project for the Boise Terminal, site information and drawings, emission estimates, and a description of operation must be included in the permit application. Information on the site and operation are provided in Section 1, while emission calculations are provided in Section 2 of this application. In addition, estimates of ambient concentrations are required and provided in Section 4 of this application.

3.6.5 SUBSECTIONS 210, 585, AND 586: TOXIC AIR POLLUTANT REQUIREMENTS

As described in Section 5, the Tesoro Boise Terminal is in compliance with the toxic air pollutant requirements.

3.6.6 SUBSECTION 577: AMBIENT AIR QUALITY STANDARDS

As described in Section 5, the proposed project will not cause significant impact on the ambient air quality standards described in this regulation.

3.6.7 SUBSECTIONS 776: RULES FOR THE CONTROL OF ODORS

Subsection 776 prohibits the sources from causing of permitting "the emission of odorous gases, liquids or solids into the atmosphere in such quantities as to cause air pollution." The proposed modification will not cause the emission of any new odorous emissions, and Tesoro does not currently emit odors that could be deemed as air pollution from any sources at their facility.

As outlined under IDAPA 58.01.01.203, all new or modified stationary sources need to demonstrate compliance with all applicable local, state, or federal emission standards. As described in Section 2, the VOC emissions are not expected to increase as result of the proposed project. In addition, NO_x and CO emissions from the VCU are also not expected to increase. Thus, Tesoro believes that operating within the constraints of the PTC No. P-050055 will continue to guarantee that the Boise Terminal will not cause a violation of the National Ambient Air Quality Standards (NAAQS)since modeling was previously performed. As such, modeling NO_x and CO emissions for comparison to the NAAQS is not necessary for this permitting action. Modeling of VOC emissions is not required because there is no NAAQS for VOCs.

Ethanol is defined as a regulated TAP per IDAPA 58.01.01.585 and ethanol emissions are expected to increase as a result of the proposed project. Per IDAPA 58.01.01.210.04, Tesoro must use one of the methods described in Subsection 210.05 through 210.08 to demonstrate preconstruction compliance for ethanol. As further described in this section, Tesoro is using the methods described in Subsection 210.06 to demonstrate preconstruction compliance.

Because only TAP emissions are expected to increase as a result of the proposed project, Tesoro must perform a TAP dispersion modeling analysis to demonstrate compliance with the IDEQ preconstruction requirements as outlined under IDAPA 58.01.01.210. The following sections describe the TAP dispersion modeling analysis. A copy of the dispersion modeling protocol submitted to IDEQ and the approval letter provided via e-mail are included as Appendix E.

4.1 METHODOLOGY

Tesoro has performed the TAP dispersion modeling analysis for the proposed project using the following modeling inputs and options, as described in the following sections.

4.1.1 DISPERSION MODEL SELECTION

The TAP dispersion modeling analysis is done using the SCREEN3 dispersion model. SCREEN3 is a screening dispersion model approved by the United States Environmental Protection Agency (EPA) for evaluating ambient air impacts. Results from the SCREEN3 modeling tend to produce conservative (i.e. high) estimates of impacts from emission sources.

4.1.2 MODEL INPUTS AND OPTIONS

4.1.2.1 METEOROLOGICAL DATA

SCREEN3 examines a range of stability classes and wind speeds to identify the "worst-case" meteorological conditions, i.e., the combination of wind speed and stability that results in the maximum ground level concentrations. For SCREEN3

dispersion modeling, the "full meteorology" option is used to identify the worst-case meteorological conditions, and thereby determine maximum ambient impacts.

4.1.2.2 BUILDING DOWNWASH

The purpose of a building downwash analysis is to determine whether the plume discharged from a stack will become caught in the turbulent wake of a building (or other structure). Wind blowing around a building creates zones of turbulence that are greater than if the buildings were absent, resulting in downwash of the plume. Plume downwash can result in elevated ground-level concentrations.

Building downwash must be considered for the screening analysis to accurately represent the dispersion of emissions from the modeled stack. The dominant downwash structure input to the model is determined using the following equation to find the structure with the greatest Good Engineering Practice Height (H_{GEP}):

$$H_{GEP} = H_b + 1.5L$$

where H_b is the height of the structure and L is the lesser of the H_b or the projected width of the structure.

SCREEN3 conservatively assumes that the dominant structure is located next to the source and calculates the cavity region from the location of the source. The maximum concentration predicted by SCREEN3 that accounts for building downwash is used for comparison to ambient concentration standards.

4.1.2.3 MODELING PARAMETERS

The modeling input parameters used for the analysis are shown below in Table 4-1.

TABLE 4-1. SCREEN3 MODELING INPUT PARAMETERS

Parameter	VCU	Units
Stack Height	45	ft
Exit Temperature	600	°F
Inside Diameter	7.6	ft
Flow Rate	5,884	cfm
Distance to Property Line	53	ft
Building Downwash	YES	
Building Height	14	ft
Minimum Horizontal Distance	24.0	ft
Maximum Horizontal Distance	64.6	ft
Dispersion Coefficient	Urban	

The temperature and flow-rate parameters provided in Table 4-1 are indicative of operating conditions for the VCU that will result in a worst-case result for ambient

air impact analysis (e.g. minimum exit temperature and flow rate). Worst-case and average modeling results are provided in Appendix B.

There is only one building (24 feet wide X 60 feet long X 14 feet tall) at the Tesoro Terminal. As such, the length and width of the building were used to determine the minimum and maximum horizontal distance. The maximum horizontal distance is calculated as follows:

$$D_{maximum} = \sqrt{(width)^2 + (length)^2}$$

The minimum horizontal distance is the lesser value of the width or length of the building.

4.2 MODELING ANALYSIS

A unit emission rate (1 lb/hr) is used for the SCREEN3 modeling. SCREEN3 is a linear model; therefore, the maximum concentration results may be scaled in accordance with the calculated emission rate of ethanol. As the SCREEN3 model reports results on a 1-hour averaging period, the resulting modeled concentration of ethanol is scaled to the averaging period of the acceptable ambient concentration (AAC). The AACs presented in IDAPA 58.01.01.585 are based on a 24-hour averaging period. Therefore, the resulting modeled concentration of ethanol is scaled by a factor of 0.4 to compare with the 24-hour averaging period AAC.[9]

The loading rack has a rated capacity of 324,000 gallons per hour, per Condition 2.1, Process Description, of the PTC No. P-050055. This hourly throughput is used, in conjunction with the VCU emission limit of 35 mg/liter of gasoline loaded in accordance with 40 CFR 60.502(b), to determine the controlled ethanol emission rate.[10] It is assumed that 98.7% of the vapors generated by the loading operations are captured and routed to the VCU, while 1.3% of the vapors are emitted as fugitive emissions from loading operations.[11] The uncontrolled ethanol emission rate from the loading rack is determined by utilizing the control efficiency of 95.1% reported in the most recent stack test on the VCU with the controlled ethanol emission rate and a 98.7% collection efficiency for emissions routed to the VCU.[12] An uncontrolled ethanol emission rate of 1,932.6 lb/yr is used for the SCREEN3 modeling.

The total uncontrolled emission rate, which is the sum of the uncontrolled emission rates from the loading rack and the equipment leaks, is then used to scale the SCREEN3 modeling result and calculate the uncontrolled ambient concentration of ethanol. As outlined under IDAPA 58.01.01.210.05, compliance is demonstrated with the TAP requirements if the uncontrolled ambient concentration for the TAP being considered is less than its corresponding AAC.

The SCREEN3 modeled result for ethanol is shown in Table 4-2 below.

---

[9] Per IDAPA 58.01.01.210.03(a)i.

[10] It has been assumed that the VCU will have a similar removal efficiency while loading ethanol in place of gasoline.

[11] A 98.7% collection efficiency has been assumed for emissions routed to the VCU per AP-42, Section 5.2, Transportation and Marketing of Petroleum Liquids, dated June 2008.

[12] The performance test on the VCU occurred on August 31, 2005.

TABLE 4-2. ETHANOL SCREEN3 DISPERSION MODELING RESULTS

Pollutant	AAC (mg/m^3)	Averaging Period	Modeling Results (mg/m^3) [a, b]	Scaled Modeling Results (mg/m^3) [c]	Modeling Result Below AAC?
Ethanol	94	24-hour	28.6	11.4	YES

[a] This modeling result represents the 1-hour concentration resulting from a unit emission rate (i.e. 1 lb/hr) multiplied by the actual emission rate (lb/hr) of the pollutant.

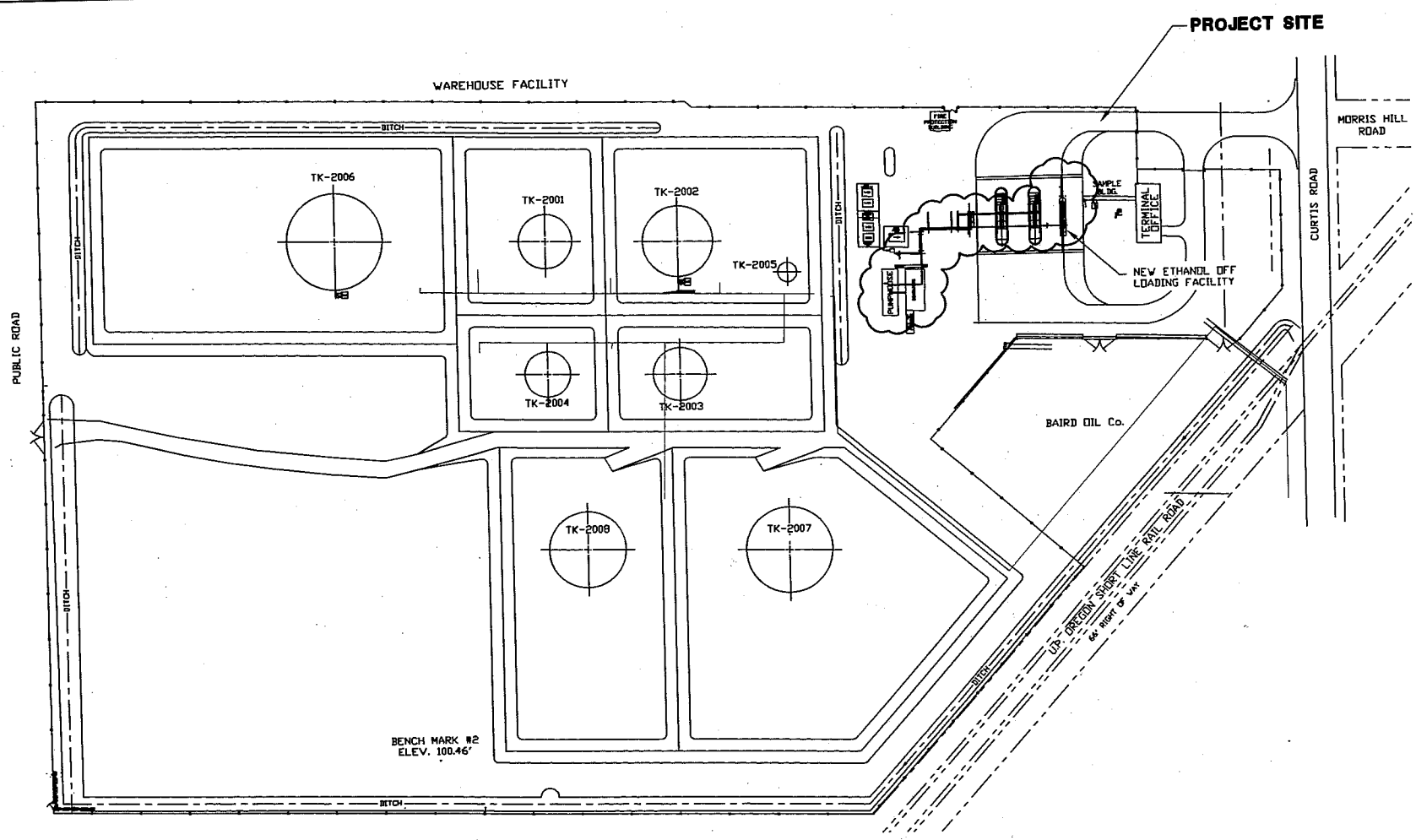
[b] For conservatism, the modeling results represent the operating conditions of the VCU that result in the worst case modeling results.

[c] The scaled modeling result is the 1-hour modeling result scaled by a factor of 0.4 to represent a 24-hour averaging period concentration.

As shown in Table 4-2, the modeled impact of ethanol is below the AAC; thus, compliance with the preconstruction TAP requirements outlined under IDAPA 58.01.01.210.03 is demonstrated. A copy of the SCREEN3 output file is included as Appendix F.

APPENDIX A

SCALED PLOT PLAN, AREA MAP, AND PROCESS FLOW DIAGRAM



ISSUED FOR PERMIT
JULY 11, 2008

1"=50' 50' 0' 50' 100'

LEGEND:
NEW WORK

REFERENCE DRAWINGS	
DRAWING NO.	TITLE

REVISIONS							
NO.	DESCRIPTION	BY	DATE	CHK	DATE	APP	DATE
B	ISSUED FOR PERMIT	VT	7/11/08	JD	7/11/08		
A	ISSUED FOR REVIEW & APPROVAL	VR	6/24/08	JD	6/24/08		

	BY	DATE
DRAWN	VR	5/28/08
CHECKED	-	-
APPROVED	-	-

REC JOB NUMBER:
CLIENT CONTRACT NUMBER:
CAD FILE: 1486-P-01

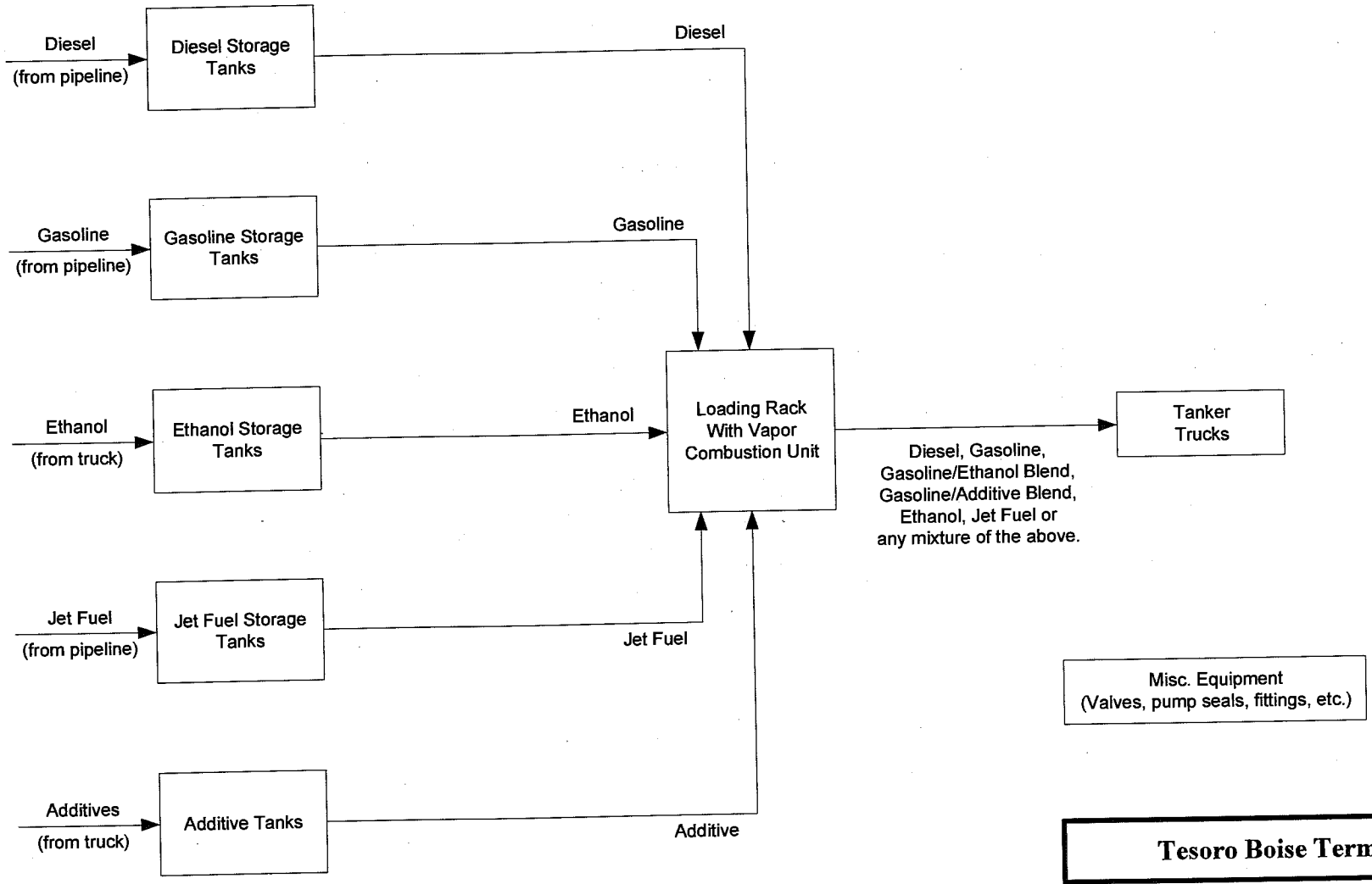
PREPARED BY:
SUN ENGINEERING SERVICES, INC.
3405 Garden Grove Blvd., Suite 201
Westminster, CA 92683
(714) 379-2300
1486\1486-P-01
7/11/08

TESORO REFINING & MARKETING COMPANY

BOISE TERMINAL
ETHANOL BLENDING FACILITY
SITE PLAN

SCALE: 1"=50'
DWG: 1486-P-01
REV: B

JUL 18 2008 11:17 AM



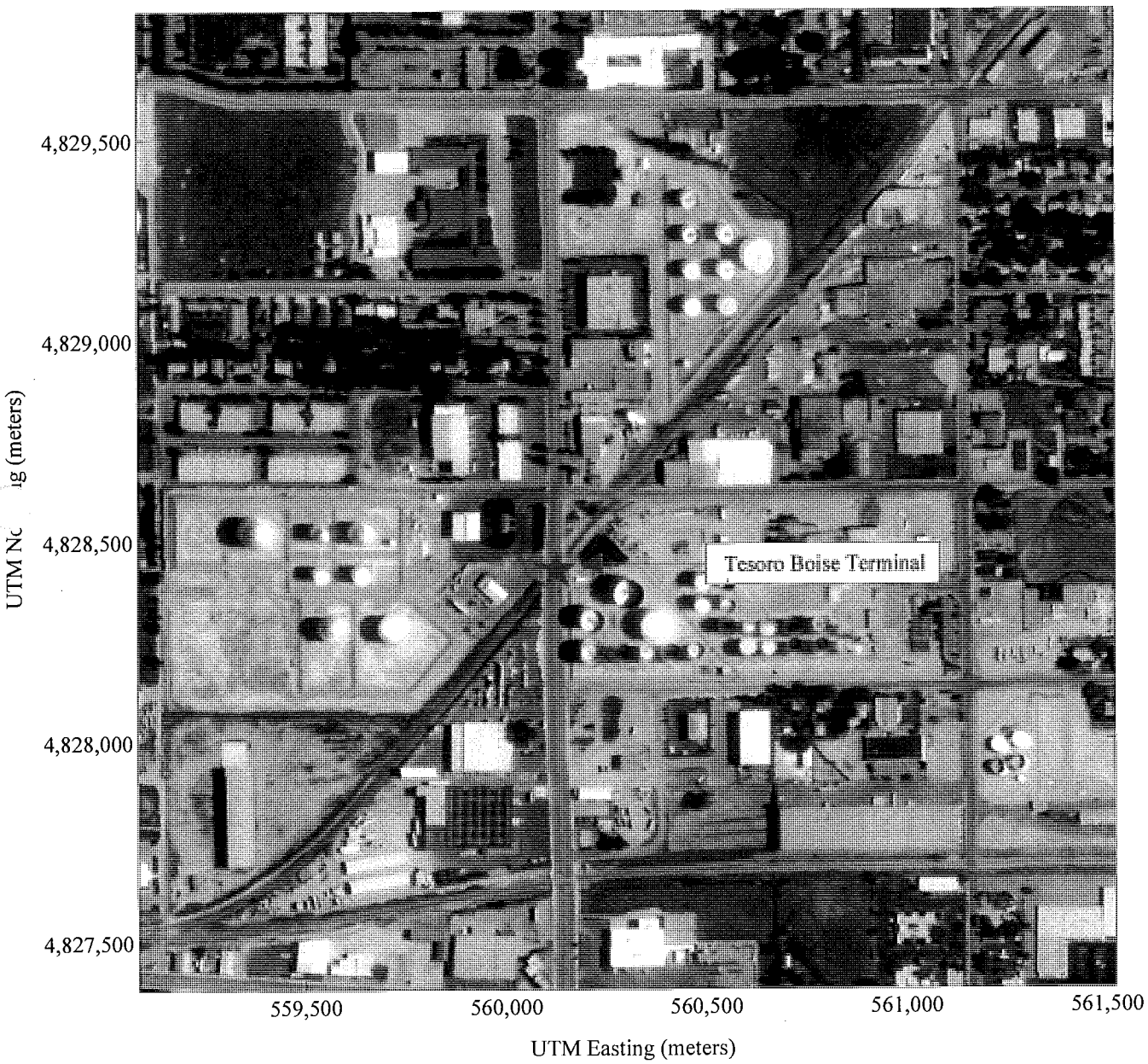
Tesoro Boise Terminal

Process Flow Diagram

Trinity Consultants

084801.0027
August 2008

Area Map of Tesoro Boise Terminal



Trinity Consultants

World Geodetic System 1984; UTM Grid Zone 11
Compiled from USGS Topographic Maps

Project Number #084801.0027
August 2008

APPENDIX B

DETAILED EMISSION CALCULATIONS

Table B-1: Potential Ethanol Emissions from Loading Rack

Ethanol Throughput[1]	Basis	Controlled Emissions[2]	Uncontrolled Emissions[3]
324,000 gallons/hour 280,000,000 gallons/year	Loading Rack Capacity Annual Permit Limit	96 lbs/hr 41 tpy	1,933 lbs/hr 835 tpy

Notes:

1. The loading rack has a rated capacity of 324,000 gallons per hour, per permit condition 2.1, Process Description. The annual throughput limit of 280,000,000 gallons of gasoline per year is assumed for ethanol, per permit condition 2.6, Throughput Limits, of PTC No. P-050055, dated May 23, 2006.

2. Controlled emissions are calculated assuming an emission factor of 35 mg of TOC/L gasoline loaded, per permit condition 2.2, Emissions Control Description. It has been assumed that the control device will have a similar removal efficiency while loading ethanol. Additionally, it has been assumed that 98.7% of the vapors generated while loading are captured and routed to the VCU. A 98.7% collection efficiency has been assumed for emissions routed to the VCU, per AP-42, Section 5.2, dated June 2008. Fugitive emissions from uncaptured vapors are included in the calculations.

3. Uncontrolled emissions are calculated assuming the control device is 95.1% efficient, per the performance test on the VCU on August 31, 2005. The performance test is included in Appendix H for reference purposes. Additionally, it has been assumed that 98.7% of the vapors generated while loading are captured and routed to the VCU. A 98.7% collection efficiency has been assumed for emissions routed to the VCU, per AP-42, Section 5.2, dated June 2008. Fugitive emissions from uncaptured vapors are included in the calculations.

Table B-2: Fugitive Ethanol Emissions from Equipment Leaks

Component Type	Service[1]	Estimated Number of Components[2]	Emission Factor[3] (lb/hr/component)	Emissions[4] (lb/hr)	Emissions[4] (tpy)
Fittings	Light Liquid	1	1.76E-05	1.76E-05	7.73E-05
Pump Seals	Light Liquid	2	1.19E-03	2.38E-03	1.04E-02
Valves	Light Liquid	32	9.48E-05	3.03E-03	1.33E-02
			Total:	5.43E-03	2.38E-02

Notes:

1. A light liquid is defined as a material in a liquid state in which the sum of the concentration of individual constituents with a vapor pressure over 0.3 kPa at 20°C is greater than or equal to 20% by weight, per EPA's document, Protocol for Equipment Leak Emission Estimates, EPA-453/R-95-017, dated November 1995.

2. Fugitive equipment component count provided in an email from Brooks Neighbors (Tesoro) to Melissa Hillman (Trinity) on July 21, 2008.

3. Marketing terminal average emission factors for light liquid service provided in the EPA document, Protocol for Equipment Leak Emission Estimates, EPA-453/R-95-017, Table 2-3, Marketing Terminal Average Emission Factors, dated November 1995.

4. Emissions calculated assuming 8,760 hr/yr.

Table B-3: Ethanol Model Results from Loading Rack Emissions

SCREEN3 Modeling Inputs[1]

Parameters	Worst Case[2]	Average Case[2]
Height (ft)	45	45
Exit Temperature (°F)	600	1100
Inside Diameter (ft)	7.60	7.60
Flow Rate (cfm)	5884	6419
Distance to Property Line (ft)	53	53
Building Downwash	YES	YES
Building Width (ft)	24	24
Building Length (ft)	60	60
Building Height (ft)	14	14
Dispersion Coefficient	Urban	Urban

SCREEN3 Modeling Output[3]

Worst Case SCREEN3 Modeling Result	14.8	$\mu g/m^3$
Average Case SCREEN3 Modeling Result	11.3	$\mu g/m^3$

SCREEN3 Modeling Analysis

	Uncontrolled Emission Rate (lbs/hr)	Modeled Result[4] (mg/m^3)	Scaled Modeling Result[5] (mg/m^3)	Acceptable Ambient Concentration (AAC)[6] (mg/m^3)	Modeled Results Less Than AAC?
Worst Case SCREEN3 Model Result	1932.6	28.6	11.4	94	YES
Average Case SCREEN3 Model Result	1932.6	21.8	8.7	94	YES

Notes

1. Stack height, distance to property line, and building dimensions provided via emails, from Brook Neighbors (Tesoro) to Melissa Hillman (Trinity) on 7/15/2008 and 7/18/2008. Range of exhaust temperatures provided via email from Brooks Neighbors (Tesoro) to Melissa Hillman (Trinity) on 8/8/2008. Flow rate provided via email from Jeff Carter (Tesoro) to Melissa Hillman (Trinity) on 8/8/2008.
2. The minimum exit temperature and flow rate were used to model worst case conditions for ambient air impacts. The average case is indicative of typical operating conditions for the VCU, which is assumed to be the average of the minimum and maximum values of the exhaust temperature range of 600 °F to 1600 °F and the average of the minimum and maximum values of the exhaust flow rate range of 5884 cfm to 6954 cfm.
3. Modeling results for a unit emission rate of 1 lb/hr.
4. Modeling result scaled by actual uncontrolled emission rate of ethanol. Please note that the emission rate includes emissions from both the loading rack (Table B-1) and the equipment leaks (Table B-2).
5. Modeling results are scaled using a factor of 0.4 for 24-hour averaging period, per IDAPA 58.01.01.210.03(a)i.
6. Acceptable Ambient Concentrations (AAC) for ethanol as listed in IDAPA 58.01.01.585.

APPENDIX C

PUBLIC NOTICE OF INFORMATIONAL MEETING

Idaho Statesman

P.O. Box 40, Boise, Idaho 83707-0040

LEGAL ADVERTISING PROOF OF PUBLICATION

Account #	DT#/#	Identification	Amount:
1071049	378360	LEGAL NOTICE INFORMATIONAL MEETING	$25.70
Attention: KATHRYN KLICK	P.O. #	Run Dates: AUGUST 4, 2008	
TESORO 321 N CURTIS ROAD BOISE IDAHO 83706		Number of Lines: 23	
		Affidavit: 1	Legal #:

LEGAL NOTICE
Public Notice

This notification is in accordance with the Idaho Administrative Code IDAPA 58.01.01.213.02. **Tesoro Refining and Marketing Company (Tesoro)** will hold an informational meeting open to the public on Thursday, August 14, 2008 from 5:00-6:00 pm at the Hilton Garden Inn Boise Spectrum. The purpose of the meeting is to facilitate discussion regarding an upcoming project at the Boise Terminal. Tesoro will commence construction on a terminal upgrade project at the Boise Terminal in August 2008. The project requires a Permit to Construct from the Idaho Department of Environmental Quality (IDEQ). For additional information regarding this notice contact Brooks Neighbors at 210-626-6327.

Pub. Aug. 4, 2008

0000378360-01

JANICE HILDRETH, being duly sworn, deposes and says: That she is the Principal Clerk of *The Idaho Statesman,* a daily newspaper printed and published at Boise, Ada County, State of Idaho, and having a general circulation therein, and which said newspaper has been continuously and uninterruptedly published in said County during a period of twelve consecutive months prior to the first publication of the notice, a copy of which is attached hereto: that said notice was published in The Idaho Statesman, in conformity with Section 60-108, Idaho Code, as amended, for:

ONE

[ ] consecutive weekly [X] single

[ ] consecutive daily [ ] odd skip

insertion(s)

beginning issue of: AUGUST 4, 2008

ending issue of: AUGUST 4, 2008

Janice Hildreth

STATE OF IDAHO)
.ss
COUNTY OF ADA)

On this 4 day of AUGUST in the year of 2008 before me, a Notary Public, personally appeared before me Janice Hildreth known or identified to me to be the person whose name subscribed to the within instrument, and being by me first duly sworn, declared that the statements therein are true, and acknowledged to me that she executed the same.

Sarah Clemens

Notary Public for Idaho
Residing at: Boise, Idaho
My Commission expires: 5/27/2011

SARAH CLEMENS NOTARY PUBLIC STATE OF IDAHO

Public Notice

This notification is in accordance with the Idaho Administrative Code IDAPA 58.01.01.213.02. Tesoro Refining and Marketing Company (Tesoro) will hold an informational meeting open to the public on Thursday, August 14, 2008 from 5:00-6:00 pm at the Hilton Garden Inn Boise Spectrum. The purpose of the meeting is to facilitate discussion regarding an upcoming project at the Boise Terminal. Tesoro will commence construction on a terminal upgrade project at the Boise Terminal in August 2008. The project requires a Permit to Construct from the Idaho Department of Environmental Quality (IDEQ). For additional information regarding this notice contact Brooks Neighbors at 210-626-6327.

APPENDIX D

CERTIFICATION FORM

COMPLIANCE CERTIFICATION

Based on the information and belief formed after reasonable inquiry, I certify the statements and information in this document are accurate and complete.

Jeff J. Carter
Terminal Manager

8-11-08
Date

APPENDIX E

MODEL PROTOCAL AND APPROVAL LETTER

Trinity Consultants

Offices nationwide ■ trinityconsultants.com

20819 72nd Avenue South, Suite 610, Kent, Washington 98032 U.S.A. ■ (253) 867-5600 ■ Fax (253) 867-5601

VIA E-MAIL : kevin.schilling@deq.idaho.gov

July 25, 2007

Mr. Kevin Schilling
Idaho Department of Environmental Quality
1410 North Hilton
Boise, ID 83706

Re: Tesoro Refining & Marketing Company, Boise Terminal – Dispersion Modeling Protocol

Dear Mr. Schilling:

Trinity Consultants (Trinity) presents this modeling protocol on behalf of Tesoro Refining & Marketing Company's (Tesoro's) petroleum products terminal located in Boise, Idaho (Boise Terminal). Pursuant to IDAPA 58.01.01.213.01(c), this submission details the proposed modeling methodology to be used in the air quality analyses to support a Pre-Permit Construction Approval (PPC) application and a Permit to Construct (PTC) application for Tesoro's Boise Terminal. The area is currently in-attainment for all pollutants. This letter describes and seeks approval for specific modeling procedures to be used in the analysis that will accompany both the PPC and PTC application.

BACKGROUND

Tesoro owns and operates a bulk loading facility located at 321 North Curtis Road in Boise, Idaho. Tesoro's Boise terminal currently operates under the PTC No. P-050055 issued by the Idaho Department of Environmental Quality (IDEQ) on May 23, 2006. An area map and a plot plan are included in Attachment A and B, respectively.

Tesoro would like to start blending ethanol with the gasoline that is loaded at the Boise terminal. As part of this project, Tesoro proposes to change the service of Tanks 2001, 2002, and 2008 to store ethanol, premium gasoline, and regular (85 octane) gasoline, respectively. In addition, Tesoro is proposing to install and upgrade certain piping, pumps, and meters associated with the storage tanks and loading rack (Emission Unit #1).

Condition 2.6 of the existing PTC No. P-050055 states that "the maximum annual motor gasoline throughput of the loading rack shall not exceed 280,000,000 gallons per year." Tesoro will group ethanol throughput within this limitation. Ethanol has a vapor pressure of 0.870 psi at 70 °F and