

Covered Source Permit Review Summary (Renewal)

Application File No.: 0089-06

Permit No.: 0089-01-C

Applicant: Tesoro Hawaii Corporation

Facility Title: Maui Terminal
Petroleum Bulk Loading Terminal
140-A Hobron Avenue
Kahului, Hawaii 96732

Mailing Address: Tesoro Hawaii Corporation
431 Kuwili Street, 2nd Floor
Honolulu, Hawaii 96817

Responsible Official: Wade K. Nakashima
Manager, Supply and Distribution - Hawaii
(808) 547-3192

Point of Contact: Ms. Rose Chu
Environmental Compliance Administrator
(808) 547-3817

Application Dates: September 8, 2011

Proposed Project:

SICC 5171 (Petroleum Bulk Stations and Terminals)

This is a renewal application for Covered Source Permit No. 0089-01-C which expires on September 10, 2012. There are no proposed changes to the existing permit and facility. The Maui Terminal includes four petroleum storage tanks and a petroleum tank truck loading rack with vapor recovery system. The renewal application fee of \$500.00 (non-major non-toxic covered source) was submitted by the applicant and processed.

PROPOSED

Equipment Description:

1. Petroleum storage tanks

Tank Number	Capacity (bbls)	Construction	Permitted Service	Actual Service
1 (55-1)	45,000	Internal Floating Roof	Insignificant Activity	Jet Fuel
2 (6027)	5,000	Fixed Roof	Insignificant Activity	Fire Water
3 (6023)	30,000	Internal Floating Roof	Gasoline	Gasoline 87
4 (6025)	20,000	Fixed Roof	Insignificant Activity	Jet Fuel
5 (6024)	15,000	Internal Floating Roof	Gasoline	Diesel - Low Sulfur
6 (6026)	20,000	Internal Floating Roof	Gasoline	Diesel - High Sulfur
7 (6028)	15,000	Internal Floating Roof	Gasoline	Gasoline 92

2. One (1) petroleum tank truck loading rack (bottom loading) with vapor recovery system. There is also a low sulfur diesel load arm (insignificant activity).
3. One (1) diesel/jet loading rack (insignificant activity). The high sulfur diesel load arm is connected to the vapor recovery system.

Air Pollution Controls:

1. The petroleum storage tanks permitted for gasoline storage are equipped with internal floating roofs complying with NSPS Subpart Kb.
2. The petroleum tank truck loading rack (bottom loading) is equipped with a vapor recovery system complying with NSPS Subpart XX.

Applicable Requirements:

Hawaii Administrative Rules (HAR)

Title 11, Chapter 59 Ambient Air Quality Standards

Title 11, Chapter 60.1 Air Pollution Control

Subchapter 1 General Requirements

Subchapter 2 General Prohibitions

HAR 11-60.1-31 Applicability

HAR 11-60.1-39 Storage of Volatile Organic Compounds

Subchapter 5 Covered Sources

Subchapter 6 Fees for Covered Sources, Noncovered Sources, and Agricultural Burning

HAR 11-60.1-111 Definitions

HAR 11-60.1-112 General Fee Provisions for Covered Sources

HAR 11-60.1-113 Application Fees for Covered Sources

HAR 11-60.1-114 Annual Fees for Covered Sources

PROPOSED

HAR 11-60.1-115 Basis of Annual Fees for Covered Sources
Subchapter 8 Standards of Performance for Stationary Sources
HAR 11-60.1-161 New Source Performance Standards

Federal Requirements

40 CFR Part 60 Standards of Performance for New Stationary Sources (NSPS)
Subpart A General Provisions
Subpart Kb Standards of Performance for Volatile Organic Liquid Storage Vessels
(including Petroleum Liquid Storage Vessels) for which Construction,
Reconstruction, or Modification Commenced after July 23, 1984.
Subpart XX Standards of Performance for Bulk Gasoline Terminals

40 CFR Part 63 National Emission Standards for Hazardous Air Pollutants for Source
Categories (MACT),
Subpart A General Provisions;
Subpart BBBB National Emission Standards for Hazardous Air Pollutants for
Source Category: Gasoline Distribution Bulk Terminals, Bulk
Plants, and Pipeline Facilities.

Non-applicable Requirements:

Hawaii Administrative Rules (HAR)

Title 11, Chapter 60.1 Air Pollution Control
Subchapter 7 Prevention of Significant Deterioration Review
Subchapter 9 Hazardous Air Pollutant Sources

Federal Requirements

40 CFR Part 52.21 Prevention of Significant Deterioration of Air Quality

40 CFR Part 61 National Emission Standards for Hazardous Air Pollutants (NESHAPs)
40 CFR Part 63 National Emission Standards for Hazardous Air Pollutants for Source
Categories (Maximum Achievable Control Technologies (MACT)
Standards)
Subpart R Bulk Gasoline Terminals and Pipeline Breakout Stations

Prevention of Significant Deterioration (PSD):

This source is not a major stationary source nor are there modifications proposed that constitute a major stationary source that is subject to PSD review. Therefore, PSD is not applicable.

Best Available Control Technology (BACT):

A Best Available Control Technology (BACT) analysis is applicable only to new covered sources and significant modifications to covered sources that have the potential to emit or a net emissions increase above significant levels as defined in HAR §11-60.1-1. There are no proposed modifications to this existing source for this renewal application. Therefore, a BACT analysis is not applicable.

Consolidated Emissions Reporting Rule (CERR):

40 CFR Part 51, Subpart A - Emission Inventory Reporting Requirements, determines CER based on the emissions of criteria air pollutants from Type B point sources (as defined in 40 CFR Part 51, Subpart A), that emit at the CER triggering level as shown in the table below:

Pollutant	Type B CER Triggering Level ¹ (tpy)	In-house Total Facility Triggering Level ² (tpy)	Total Facility Emissions ² (tpy)
VOC	≥100	≥25	65.06

¹ Based on actual emissions
² Based on potential emissions

This facility emits less than the Type B CER (VOC) triggering levels. Therefore, CER requirements are not applicable.

Although CER for the facility is not triggered, the Clean Air Branch requests annual emissions reporting from those facilities that have facility-wide emissions of a single air pollutant exceeding in-house triggering levels. Since the total emissions of VOC within the facility is greater than twenty-five (25) tons per year, annual emissions reporting for the facility will be required for in-house recordkeeping purposes. Also, annual emissions reporting is required for covered sources.

Compliance Assurance Monitoring (CAM):

40 CFR Part 64

Applicability of the CAM rule is determined on a pollutant specific basis for each affected emission unit. Each determination is based upon a series of evaluation criteria. In order for an emission unit to be subject to CAM, each emission unit must:

- Be located at a major source per Title V of the Clean Air Act Amendments of 1990;
- Be subject to federally enforceable applicability requirements;
- Be fitted with an “active” air pollution control device;
- Have pre-control device potential emissions that exceed applicable major source thresholds;
- Not be subject to certain regulations that specifically exempt it from CAM.

Emission units are any part or activity of a stationary source that emits or has the potential to emit any air pollutant.

These emission units are not subject to CAM since this facility is not a major source required to obtain a Part 70 permit.

Synthetic Minor Source:

This facility is a synthetic minor source as the facility would be classified as a major source without operational limitations, however, is classified as a non-major source through the use of operational limitations on the throughput for the petroleum truck loading rack.

PROPOSED

Insignificant Activities:

Per HAR 11-60.1-82(f)(7), the following tanks and equipment are considered insignificant activities due to emissions of VOC less than 1.0 tpy and are not subject to any federal standard.

1. Tank no. 1 (55-1) storing jet;
2. Tank no. 2 (6027) storing diesel;
3. Tank no. 4 (6025) storing jet;
4. Diesel/jet loading rack; and
5. Low sulfur diesel load arm (insignificant activity) on the petroleum tank truck loading rack (bottom loading) with vapor recovery system.

Alternate Operating Scenarios:

There are no proposed alternate operating scenarios.

Project Emissions:

The maximum VOC emissions (Potential to Emit) were calculated for each gasoline tank using a true vapor pressure (TVP) of 11.1 psia. Gasoline throughput was assumed to be 100% through the smallest diameter gasoline tank (Tank 5). This gives the maximum withdrawal emissions.

Maximum emissions from the gasoline load rack is based on the maximum gasoline throughput allowed by the permit and assuming the NSPS allowable limit of 35 mg. of VOC per liter of gasoline throughput.

Hazardous air pollutants (HAPs) were calculated based on the gasoline analysis for the year 2010. The maximum HAP vapor weight concentration for any monthly sample of either 87 or 92 octane gasoline loaded at the Barbers Point Harbor was used for each HAP. This gives a very conservative maximum HAP content.

Note that no credit was taken for ethanol in calculating gasoline air toxic emissions from the load rack. All product through the load rack was assumed to be gasoline. The maximum emissions are shown in the table below:

Facility Potential Emissions

Source	VOC (tpy)	Benzene (tpy)	Ethyl-Benzene (tpy)	Toluene o-p-m (tpy)	Xylenes o-p-m (tpy)	Hexane (tpy)	Total HAPs (tpy)
Vapor wt. %		1.72	0.24	4.40	0.51	3.26	
Tank 3	8.24	0.14	0.02	0.36	0.04	0.27	0.83
Tank 5*	8.34	0.14	0.02	0.37	0.04	0.27	0.84
Tank 6	9.01	0.15	0.02	0.40	0.05	0.29	0.91
Tank 7	8.77	0.15	0.02	0.39	0.04	0.29	0.89
Load Rack	30.7	0.51	0.07	1.32	0.15	0.98	3.03
Total	65.06	1.09	0.15	2.84	0.32	2.10	6.50

* This tank shows 100% of the withdrawal emissions.

Ambient Air Quality Impact Assessment:

The only emissions are fugitive VOCs from the petroleum storage tanks and petroleum tank truck loading rack and any HAPs associated with these VOCs. An ambient air quality impact

PROPOSED

assessment was not performed for the following reasons: 1) VOCs do not have an ambient air quality standard, and 2) The Department of Health air modeling guidance generally exempts an applicant from performing an ambient air quality impact assessment for fugitive sources (storage tanks, pipe leaks, etc.).

Significant Permit Conditions:

1. 40 CFR Subpart BBBBBB, National Emission Standards for Hazardous Air Pollutants for Source Category: Gasoline Distribution Bulk Terminals, Bulk Plants, and Pipeline Facilities, was added as an applicable requirement for the petroleum storage tanks and petroleum tank truck loading rack. The Maui terminal is considered to be a gasoline bulk terminal since the throughput is 20,000 gallons per day or greater.
2. The maximum throughput of the petroleum tank truck loading rack shall be less than 250,000 gallons per day of gasoline. Gallons per day is calculated by summing the current day's throughput, plus the throughput for the previous 364 days, and then dividing that sum by 365. The Maui terminal reduced its throughput from 576,000 gallons per day to 250,000 gallons per day to comply with Option 2 of Table 2 to Subpart BBBBBB.

Conclusion and Recommendations:

Recommend issuing the renewal for the subject covered source permit with the significant changes to the permit indicated above. A 30-day public comment period and 45-day EPA review period are also required. This permit shall supersede CSP No. 0089-01-C issued on September 11, 2007 in its entirety.

Reviewer: Darin Lum
Date: 8/2012