

Significant Modification to a Covered Source
Review Summary

Application File No.: 0089-04

Permit No.: 0089-01-C

Applicant: Tesoro Hawaii Corporation

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

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Application Date: May 10, 2004 and May 20, 2004

Proposed Project:

SICC 5171

This application consists of a significant modification to an existing covered source. The source is Tesoro's petroleum bulk loading terminal in Kahului, Maui, operating under covered source permit (CSP No. 0089-01-C). A permit modification application fee of \$1,000.00 was also submitted by the applicant and processed.

The subject permit application is being submitted to allow the storage of gasoline in the existing petroleum storage tank no. 3. This tank is currently storing high sulfur diesel fuel. Allowing the storage tank to store gasoline would subject the tank to New Source Performance Standards (NSPS) Subpart Kb. Storage tank no. 3 currently has an existing internal floating roof with vapor mounted primary seal. A secondary seal will be added for compliance with the NSPS standards.

The table below shows the existing and proposed service of the petroleum tanks (permitted and actual service).

PROPOSED(6/22/04)

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

¹ The applicant plans to later modify the permit to change tank no. 1 to an insignificant activity after issuance of this significant modification, as it has not yet been converted to gasoline storage.

Equipment Description:

Tank no. 3 is currently an internal floating roof tank storing diesel fuel with a capacity of 30,000 barrels. In order to store gasoline, the tank must be upgraded to NSPS Subpart Kb standards. A secondary seal will be added.

Air Pollution Controls:

A secondary seal shall be added to the existing internal floating roof tank to control VOCs.

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

PROPOSED(6/22/04)

Federal Requirements

40 CFR Part 60 - New Source Performance Standards (NSPS):
NSPS 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.

Non-applicable Requirements:

Hawaii Administrative Rules (HAR)

Title 11, Chapter 60.1 Air Pollution Control
Subchapter 7 Prevention of Significant Deterioration
Subchapter 9 Hazardous Air Pollution 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.
Not applicable since not a major source of HAPs.

Prevention of Significant Deterioration (PSD):

This source is not a major stationary source nor does the modification proposed 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 required for new or modified sources that have the potential to cause a net increase of air pollutant emissions above significant levels as defined in HAR 11-60.1-1. This modification will not increase VOC emissions above significant levels. Therefore, a BACT analysis is not triggered.

Pollutant	Proposed Potential to Emit (tpy)	Past 2-yr Actual Average (2001-2002) Emissions (tpy)	Net Emission Increase (tpy)	Significant Level (tpy)
VOC	3.07	0.225	2.845	40

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 Levels (tpy)	In-house Total Facility Triggering Levels (tpy)
VOC	≥100	≥25

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. Annual emissions from these facilities are used within the Department and are not inputted into the AIRS database. Since the total emissions of VOC within the facility is greater than 25 tons per year, annual emissions reporting for the facility will be required for in-house recordkeeping purposes.

Compliance Data System (CDS):

Compliance Data System (CDS) is an inventory system used to track covered sources subject to annual inspections. This source is subject to CDS because it is a covered source.

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 throughput for the petroleum truck loading rack.

Insignificant Activities:

Tanks nos. 2 (6027) and 4 (6025) are considered insignificant activities since the emissions of VOC are less than 1.0 tpy due to the storage of low vapor pressure products.

Alternate Operating Scenarios:

None proposed.

Project Emissions:

Source	VOC (tpy)	Benzene (tpy)	Toluene (tpy)	Ethyl Benzene (tpy)	m-xylene (tpy)	o, p-xylene (tpy)	Hexane (tpy)	Total HAPs (tpy)
Tank No. 3 (gasoline) (Potential Emissions) ¹	3.07	0.05	0.09	4.83 E-03	0.01	0.02	0.01	0.18
Tank No. 3 (diesel fuel) (Actual Avg. Emissions 2001-2002)	0.225	0.003	0.013	5.00 E-04	0.008	0.001	0	0.026
Net Change (+)	2.845	0.047	0.077	0.004	0.002	0.019	0.01	0.155

¹ Based on EPA TANKS 4.0 program using 1,244,007 gallon storage capacity and 23.09 turnovers

Air Quality Assessment:

An ambient air quality impact analysis was not performed for this modification for the following reasons: 1) VOCs do not have an ambient standard, and 2) the emissions from the storage tank are considered fugitive. The Department of Health air modeling guidance generally exempts an ambient air quality impact analysis for fugitive sources.

Significant Permit Conditions:

Recommend superseding Attachment IIA: Special Conditions for the Storage Tanks, with an amended Attachment IIA. In order to allow the storage of gasoline, petroleum storage tank no. 3 will be subject to NSPS Subpart Kb, including all emission limits, notification, testing, monitoring and reporting requirements.

Conclusion and Recommendations:

Recommend amending the covered source permit subject to the significant permit conditions noted above.

Reviewer: Darin Lum
Date: 6/04