PROPOSED

Covered Source Permit Review Summary (Renewal)

Application File No.: 0330-04

Permit No.: 0330-01-C

Applicant: Tesoro Hawaii Corporation

Facility Title: Barbers Point Harbor Loading Facility
Kapolei, Hawaii 96707
UTM 591.000E 2358.390N

Mailing Address: Tesoro Hawaii Corporation
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Kapolei, Hawaii 96707-1713

Responsible Official: Mr. Daniel L. Carlson
Vice President – Kapolei Refinery
(808) 547-3828

Point of Contact: Ted Metrose
Manager, Refinery Environmental Affairs
(808) 479-9886

Application Dates: August 26, 2011

Proposed Project:

SICC 4491 (Marine Cargo Handling)

This is a renewal application for Covered Source Permit No. 0330-01-C which expires on August 5, 2012.

Tesoro Hawaii Corporation produces and stores petroleum products at its refinery in Campbell Industrial Park. Various petroleum products are transported via pipeline to certain customers and distribution points. One of those distribution points is the wharf at Barbers Point Deep Draft Harbor. Pipelines installed in a leased easement terminate at pier side valve boxes from which petroleum products are loaded into ships and inter-island barges. Petroleum products are loaded onto ships and/or barges from piers No. 5 and 6 at the Barbers Point Deep Draft Harbor. Petroleum products currently include gasoline, naphtha, diesel, jet kerosene and fuel oil. Normal operation of the Barbers Point Harbor Loading Facility includes the loading of petroleum product into marine barges and/or ships. Operating hours for the terminal are estimated at twenty-four (24) hours per day, 365 days per year, for a total of 8,760 hours of operation per year. An application filing fee of $3000.00 was received and processed.

Equipment:

Marine Tank Vessel Loading Terminal consisting of pipeline easements and valve boxes at Barbers Point Harbor Piers Nos. 5 and 6 that load petroleum products and marine tank vessels (ships and inter-island barges).

1. Petroleum products - gasoline, naphtha, diesel, jet kerosene, fuel oil, crude oil.
2. Throughput limits – Ten (10) million barrels per year of gasoline (petroleum products, RVP >4.0 psia) and two hundred (200) million barrels per year of crude oil

Air Pollution Control Description:

The facility does not operate any air pollution control devices.

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
Subchapter 5	Covered Sources
Subchapter 6	Fees for Covered and Noncovered Sources, and Agricultural Burning
HAR 11-60.1-111	Definitions
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 9	Hazardous Air Pollutant Sources
HAR 11-60.1-171	Definitions
HAR 11-60.1-172	List of Hazardous Air Pollutants
HAR 11-60.1-173	Applicability

Federal Requirements

40 CFR Part 63	National Emission Standards for Hazardous Air Pollutants for Source Categories (MACT)
40 CFR 63.565(l)	Subpart Y, National Emission Standards for Marine Tank Vessel Loading Operations, Emission estimation procedures
40 CFR 63.567(j)(4)	Subpart Y, National Emission Standards for Marine Tank Vessel Loading Operations, Emission estimation reporting and recordkeeping procedures

Non-applicable Requirements:

Hawaii Administrative Rules (HAR)

Title 11, Chapter 60.1	Air Pollution Control
Subchapter 7	Prevention of Significant Deterioration Review
Subchapter 8	Standards of Performance for Stationary Sources

Federal Requirements

40 CFR Part 52.21	Prevention of Significant Deterioration of Air Quality
40 CFR Part 60	Standards of Performance for New Stationary Sources (NSPS)

40 CFR Part 61 National Emission Standards for Hazardous Air Pollutants (NESHAPS)

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 required for new covered sources or significant modifications to covered sources that have the potential to cause a net increase in pollution emissions 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 required.

Consolidated Emissions Reporting Rule (CERR):

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

Pollutant	**Type B CER Triggering Levels [1] (tpy)**	**Pollutant**	**In-house Total Facility Triggering Levels [2] (tpy)**	**Total Facility Emissions [3] (tpy)**
NO_x	≥100	NO_x	≥25	
SO_x	≥100	SO_x	≥25	
CO	≥1000	CO	≥250	
$PM_{10}/PM_{2.5}$	≥100/100	PM/PM_{10}	≥25/25	
VOC	≥100	VOC	≥25	124.3
		HAPS	≥5	11.1

[1] Based on actual emissions
[2] Based on potential emissions
[3] Based on actual emissions (average) from 2009 and 2010

This facility does not have any point sources that emit at the CER triggering levels. The VOC emissions from this facility are considered fugitive. 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. In addition, annual emissions reporting is required since this is a covered source.

Compliance Assurance Monitoring (CAM):

Compliance Assurance Monitoring (CAM) is not applicable since the facility is not subject to an emission limitation or standard for the applicable pollutant (VOC).

Synthetic Minor Source:

Not applicable, this facility emits more than 100 tpy of VOC and thus is a major source.

Insignificant Activities:

The facility does not have any insignificant sources.

Alternate Operating Scenarios:

The applicant did not propose any alternate operating scenarios.

Project Emissions:

The applicant included in their application tabular summaries of the actual loading data for calendar years 2009 and 2010. The table below shows the highest monthly values for throughput, VOC, and HAPS for each year. The table also shows that the facility is a major source of VOCs with the largest HAP emission being hexane. The facility plans to monitor and control its shipments to prevent the facility from becoming a major source for HAPs.

MARINE TANK VESSEL LOADING TERMINAL EMISSIONS

Year	Product	Throughput (bbls/rolling 12 mo.)	VOCs (lbs/rolling 12 mo.)	benzene (lbs/rolling 12 mo.)	ethylbenzene (lbs/rolling 12 mo.)	n-hexane (lbs/rolling 12 mo.)	toluene (lbs/rolling 12 mo.)	m-xylene (lbs/rolling 12 mo.)	p/o xylene (lbs/rolling 12 mo.)	Total HAPs (lbs/rolling 12 mo.)
2009	Gasoline -87	1,517,393	165,699	2,318.36	191.68	5,778.29	3,604.49	455.14	403.95	12,595
	Gasoline -92	265,990	29,046	355.53	42.26	379.75	794.39	96.34	85.18	1,629
	Naphtha	484,376	60,680	963.06	13.37	7,422.14	238.55	54.98	45.77	9,338
	Diesel	3,079,147	647							0
	Jet	1,393,455	293							0
	Fuel Oil	3,290,962	6							0
2010	Gasoline -87	1,508,063	163,516	1,829.18	195.14	5,343.87	3,575.44	0	0	11,705
	Gasoline -92	243,139	26,551	318.72	46.26	452.87	839.39	0	0	1,734
	Naphtha	385,795	49,989	795.37	13.05	5,519.75	238.30	0	0	7,328
	Diesel	2,440,272	512							0
	Jet	1,585,586	333							0
	Fuel Oil	3,706,850	6							0

Air Quality Assessment:

The only emissions from this facility are fugitive VOCs from the product transfer operations and any HAPs associated with these VOCs. An ambient air quality impact analysis 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 analysis for fugitive sources.

Significant Permit Conditions:

There are no new significant permit conditions for this permit renewal.

Conclusion:

Recommend issuing the renewal for the subject covered source permit as there are no significant changes to the permit. A 30-day public comment period and 45-day EPA review period are also required. This permit shall supersede CSP No. 0330-01-C issued on August 6, 2007 in its entirety and incorporates updated permit conditions for covered sources.

Reviewer: Darin Lum
Date: 12/2011