



**California Environmental Protection Agency  
Department of Toxic Substances Control**

***Draft***

**HAZARDOUS WASTE POST CLOSURE FACILITY PERMIT**

Facility Name: Tesoro Refining and Marketing Company  
Los Angeles Refinery  
2101 East Pacific Coast Highway  
Wilmington, California 90744

Owner Name: Tesoro Refining and Marketing Company  
Los Angeles Refinery  
2101 East Pacific Coast Highway  
Wilmington, California 90744

Operator Name: Tesoro Refining and Marketing  
Company  
Los Angeles Refinery  
2101 East Pacific Coast Highway  
Wilmington, California 90744

Facility EPA ID Number:  
CAD041520644  
Issuance Date:

Effective Date:

Expiration Date:

Pursuant to California Health and Safety Code section 25200, this Resource Conservation and Recovery Act (RCRA)-equivalent Hazardous Waste Facility Permit is hereby issued to: Tesoro Refining and Marketing Company

The Issuance of this Permit is subject to the terms and conditions set forth in the Approved revised Application dated February 28, 2008 with additional revisions dated September 5, 1998, May 30, 2008, July 3, 2008, October 30, 2008 and December 14, 2009, July 30, 2010 and August 26, 2010. The Permit consists of 18 pages of text including Figure 1 and 2.

\_\_\_\_\_  
Farshad Vakili, Supervisor  
Office of Permitting  
Department of Toxic Substances Control

Date: \_\_\_\_\_

**TESORO REFINING AND MARKETING COMPANY  
LOS ANGELES REFINERY  
2101 EAST PACIFIC COAST HIGHWAY  
WILMINGTON, CALIFORNIA 90744  
Draft  
HAZARDOUS WASTE POST CLOSURE FACILITY PERMIT**

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## **PART I. DEFINITIONS**

All terms used in this Permit shall have the same meaning as those terms have in the California Health and Safety Code, division 20, chapter 6.5 and California Code of Regulations, title 22, division 4.5, unless expressly provided otherwise by this Permit.

1. **“DTSC”** as used in this Permit means the California Department of Toxic Substances Control.
  
2. **“Facility”** as used in this Permit means all contiguous land and structures, other appurtenances, and improvements on the land used for the treatment, transfer, storage resource recovery, disposal or recycling of hazardous waste. A hazardous waste facility may consist of one or more treatment, transfer, storage, resource recovery, disposal or recycling operational units or combinations of these units.

For the purpose of implementing corrective action under California Code of Regulations, title 22, division 4.5, a hazardous waste facility includes all contiguous property under the control of the owner or operator required to implement corrective action.

3. **“Permittee”** as used in this Permit means the Owner and Operator.
  
4. **“RCRA”** as used in this Permit means the Resource Conservation and Recovery Act (42 U.S.C. §6901 et seq.).

## **PART II. DESCRIPTION OF THE FACILITY AND OWNERSHIP**

1. Owner of Facility  
Tesoro Refining and Marketing Company.  
Los Angeles Refinery  
2101 East Pacific Coast Highway  
Wilmington, California 90744
  
2. Owner of Real Property  
Tesoro Refining and Marketing Company.  
Los Angeles Refinery  
2101 East Pacific Coast Highway  
Wilmington, California 90744
  
3. Operator of Facility  
Tesoro Refining and Marketing Company.  
Los Angeles Refinery  
2101 East Pacific Coast Highway  
Wilmington, California 90744
  
4. Location: The Tesoro Refining and Marketing Company, Los Angeles Refinery (Facility) is located at 2101 East Pacific Coast Highway in the Cities of Carson and Wilmington, Los Angeles County, California. The entire refinery covers 300 acres west of the Dominguez Channel (Figure 1). The Facility covers two parcels listed as Tax Assessor's Parcel Numbers 7315-017-005 and 7315-014-008.
  
5. Description of Facility Operations: The Facility is an oil refinery that processes approximately 100,000 barrels of heavy crude oil per day. The Facility is equipped with a variety of processing units to refine crude oil into gasoline, diesel and other fuels. It also produces lubricating oil and petroleum coke. No petrochemicals are produced at the Facility. Process units are concentrated in both the southern and central parts of the plant. Hazardous waste generated at the Facility is hauled to, and disposed of, at an off-site treatment, storage and disposal facility.

This post closure permit pertains to Ponds 8 and 9, which cover less than one acre of the 300 acre-refinery (Figure 2). These Ponds were constructed in 1969 in an abandoned channel created when the Dominguez channel was built in the 1940s. Ponds 8 and 9 consist of two lined surface impoundments formerly used for flow equalization (Pond 9) and polishing (Pond 8) of storm water and process wastewaters before treatment and discharge to the Los Angeles County Sanitation District (LACSD).

The Permittee is proposing to fill Ponds 8 and 9 and cover them with an asphalt and/or concrete cap. The Ponds shall be backfilled with engineered fill.

The backfilled area shall include an appropriate cap to minimize infiltration of precipitation and surface water into the backfill material. Backfilling the ponds shall eliminate future maintenance of the original pond construction materials. All existing piping leading into the ponds shall be rerouted or removed. Backfill design considerations include geotechnical work to evaluate settlement, liquefaction, and slope stability; the design of an appropriate cap, and limitations on future use if any. An above-ground storage tank shall be placed on top of the backfilled area associated with Pond 9. Approval for this improvement plan shall be required by DTSC as well as the City of Los Angeles Department of Building and Safety (LADBS).

6. Facility History

The Facility was formerly known as the Texaco Los Angeles Plant and Texaco Refining and Marketing Inc. Shell Oil Products US purchased the property from Texaco. Tesoro Refining and Marketing Company purchased the Facility from Shell Oil Products on May 11, 2007; however, Shell retained operation of Ponds 8 and 9. On May 10, 2010, Shell transferred the operation of Ponds 8 and 9 to Tesoro, and Tesoro agreed to remove Shell as a named Permittee under the Post Closure Permit. Tesoro, and its predecessors, Shell, Texaco, and Equilon, have owned and operated the Facility located in the Cities of Carson and Wilmington, Los Angeles County, California, since 1928. The HWMUs, comprised of Ponds 8 and 9, were part of the refinery's waste water management system and were first operated in 1969. Ponds 8 and 9 are subject to regulation pursuant to the Toxicity Characteristic Leaching Procedure (TCLP) rule enacted by the United States Environmental Protection Agency (USEPA) in 1990. In May 1993, the Facility notified DTSC of its intent to close the Ponds. An Amended Closure Plan dated November 2, 1994, was approved by DTSC for the Facility. All wastewater flow to the ponds as surface impoundments was eliminated in November 1994 and closure activities were commenced in April 1995. All wastes were removed from the surface impoundments by August 1995 as part of the closure activities. The closure activities were completed in 1996 and the Closure Certification Report, dated May 14, 1996, was approved by DTSC on June 22, 1996. DTSC agreed with the closure of Ponds 8 and 9 which allowed limited use of the ponds for short-term storage of excess storm water during wet-weather conditions. Because the constituents of concern in the waste streams of the closed Ponds could not be distinguished from other sources of contamination at the Facility (e.g., free-phase and dissolved-phase hydrocarbons in the uppermost aquifer underlying the refinery) post closure care and groundwater monitoring are required. On March 17, 1998, DTSC required the Facility to submit a post closure permit application for Ponds 8 and 9. The Post Closure Application was submitted on September 5, 1998 and revisions submitted on May 30, 2007, February 28,

2008, July 2, 2008, October 30, 2008, December 14, 2009, July 30, 2010 and August 26, 2010. The Permittee is proposing to fill both ponds and cover them with an asphalt and/or concrete cap. An above-ground storage tank shall be placed on top of the backfilled area associated with Pond 9. The California Regional Water Quality Control Board (RWQCB), Los Angeles Region is overseeing the corrective action at the Facility under the Cleanup and Abatement Order No. 88-70 (CAO 88-70).

7. Facility Size and Type for Fee Purposes

The Facility is categorized as a large post-closure Facility pursuant to Health and Safety Code section 25205.7(d)(5). For the purpose of Health and Safety Code section 25205.4, the post-closure period for the Facility shall be deemed to have started from the effective date of this Post Closure Permit. DTSC may extend the post-closure monitoring period beyond 30 years to protect human health and the environment.

### **PART III. GENERAL CONDITIONS**

#### **1. PERMIT APPLICATION DOCUMENTS**

The Part "A" Application dated July 29, 2010 and the Revised Post Closure Permit Application dated February 28, 2008, with additional revisions dated July 2, 2008, October 30, 2008, December 14, 2009, July 30, 2010 and August 26, 2010 (Approved Application) are hereby made a part of this Permit by reference.

#### **2. EFFECT OF PERMIT**

- (a) The Permittee shall comply with the terms and conditions of this Permit and the provisions of the Health and Safety Code and California Code of Regulations (Cal. Code Regs.), title 22, division 4.5. The issuance of this Permit by DTSC does not release the Permittee from any liability or duty imposed by federal or state statutes or regulations or local ordinances, except the obligation to obtain this Permit. The Permittee shall obtain the permits required by other governmental agencies, including but not limited to, those required by the applicable land use planning, zoning, hazardous waste, air quality, water quality, and solid waste management laws for the construction and/or operation of the Facility.
- (b) The Permittee is permitted to operate, monitor and maintain this Facility for post closure activities in accordance with the terms and conditions of this Permit and the Approved Application. Any management of hazardous wastes not specifically authorized in this Permit is strictly prohibited.
- (c) Compliance with the terms and conditions of this Permit does not constitute a defense to any action brought under any other law governing protection of public health or the environment, including, but not limited to, one brought for any imminent and substantial endangerment to human health or the environment.
- (d) DTSC's issuance of this Permit does not prevent DTSC from adopting or amending regulations that impose additional or more stringent requirements than those in existence at the time this Permit is issued and does not prevent the enforcement of these requirements against the Permittee.
- (e) Failure to comply with any term or condition set forth in the Permit in the time or manner specified herein shall subject the Permittee to possible enforcement action including but not limited to penalties pursuant to Health and Safety Code section 25187.

- (f) Failure to submit any information required in connection with the Permit, or falsification and/or misrepresentation of any submitted information, is grounds for revocation of this Permit (Cal. Code Regs., tit. 22, §66270.43).
- (g) In case of conflicts between the Approved Application and the Permit, the Permit conditions take precedence.
- (h) This Permit includes and incorporates by reference any conditions of waste discharge requirements issued to the Facility by the State Water Resources Control Board or any of the California Regional Water Quality Control Boards and any conditions imposed pursuant to section 13227 of the Water Code.

3. COMPLIANCE WITH CALIFORNIA ENVIRONMENTAL QUALITY ACT (CEQA)

A Notice of Exemption has been prepared in accordance with the requirements of Public Resources Code, section 21000 et seq. and the California Environmental Quality Act Guidelines, which are codified in title 14, California Code of Regulations, section 15070 et seq.

4. ENVIRONMENTAL MONITORING

The Permittee shall comply with the applicable environmental monitoring and response program requirements of California Code of Regulations, title 22, division 4.5, chapter 14, articles 6 and 17.

- (a) For the purpose of California Code of Regulations, title 22, section 66264.91(b), the elements of the Groundwater Monitoring and Response Program (GWMRP) for the Facility are those described in Section 6 and Appendix E of the Approved Application.
- (b) For the purpose of California Code of Regulations, title 22, section 66264.92, the Water Quality Protection Standard for the Facility is described in Section 6 and Appendix E of the Approved Application.
- (c) For the purpose of California Code of Regulations, title 22, section 66264.93, the Constituents of Concern (COC) for the Facility are described in Section 6 and Appendix E (Section 3) of the Approved Application. During future sampling events, if the Facility finds Appendix IX constituents in the groundwater that are not already identified in the GWMRP as COCs, the Facility shall add them to the list of COCs.
- (d) For the purpose of California Code of Regulations, title 22, section 66264.94, the Concentration Limits for the Facility are described in Section 6 and Appendix E (Section 3) of the Approved Application. For

constituents where California Maximum Contaminant Levels (MCLs) for drinking water are not available, the Facility shall use the water quality objectives within the applicable RWQCB Basin Plan. MCLs and water quality Basin Plan objectives shall be used as the Concentration Limits until such time that the RWQCB establishes site-wide cleanup standards for the Facility.

- (e) For the purpose of California Code of Regulations, title 22, section 66264.95, the Monitoring Points and Points of Compliance for each regulated unit at the Facility are described in Section 6 and Appendix E (Section 3) of the Approved Application.
- (f) For the purpose of California Code of Regulations, title 22, section 66264.96 the Compliance Period for each regulated unit at the Facility shall be 30 years beginning with the effective date of the Post Closure Permit. DTSC may extend the post closure monitoring period beyond 30 years to protect human health and the environment.
- (g) For the purpose of California Code of Regulations, title 22, section 66270.31, the monitoring, recording, and reporting program for the Facility is described in Section 6 and Appendix E of the Approved Application. Permittee shall collect groundwater surface level measurements and monitoring data as required in the Approved Application and Cleanup and Abatement Order 88-70, and as modified by the RWQCB. Data for key monitoring parameters or constituents of concern obtained from the designated compliance wells shall be shown on separate graphs. At a minimum, these constituents shall include benzene, toluene, ethylbenzene, xylenes and the fuel oxygenates tert butyl alcohol (TBA), methyl t-butyl ether (MBTE), diisopropyl ether (DIPE).
- (h) The Facility shall comply with the requirements of the RWQCB pursuant to Cleanup and Abatement Order 88-70 issued in 1988, any modifications to the Order, and any other future requirements by the RWQCB. A copy of all the groundwater monitoring and corrective action reports shall also be submitted to DTSC.

5. ANNUAL HAZARDOUS WASTE REDUCTION AND MINIMIZATION CERTIFICATION

The Permittee shall certify annually that it has a hazardous waste reduction and minimization program and method in place and shall keep the annual certification as part of its Operating Record in accordance with Health and Safety Code section 25202.9 and California Code of Regulations, title 22, section 66264.73(b)(9)

6. ACCESS

- (a) DTSC, its contractors, employees, agents, and/or any United States Environmental Protection Agency representatives are authorized to enter and freely move about the Facility for the purposes of interviewing Facility personnel and contractors; inspecting records, operating logs, and contracts relating to the Facility; reviewing progress of the Permittee in carrying out the terms of Part VI of the Permit; conducting such testing, sampling, or monitoring as DTSC deems necessary; using a camera, sound recording, or other documentary-type equipment; verifying the reports and data submitted to DTSC by the Permittee; or confirming any other aspect of compliance with this Permit, Health and Safety Code, division 20, chapter 6.5, and California Code of Regulations, title 22, division 4.5. The Permittee shall provide DTSC and its representatives access at all reasonable times to the Facility and any other property to which access is required for implementation of any provision of this Permit, Health and Safety Code, division 20, chapter 6.5, and California Code of Regulations, title 22, division 4.5, and shall allow such persons to inspect and copy all records, files, photographs, documents, including all sampling and monitoring data, that pertain to work undertaken pursuant to the entire Permit or undertake any other activity necessary to determine compliance with applicable requirements.
- (b) Nothing in this Permit shall limit or otherwise affect DTSC's right to access and entry pursuant to any applicable State or federal laws and regulations.

#### **PART IV. PERMITTED UNITS AND ACTIVITIES**

This Permit authorizes the operation, monitoring and maintenance only of the Facility units and activities listed below. The Permittee shall not treat, store or otherwise manage hazardous waste in any unit other than those specified in this Part IV. Any modifications to a unit or activity authorized by this Permit require the written approval of DTSC in accordance with the permit modification procedures set forth in California Code of Regulations, title 22, division 4.5.

For the purpose of California Code of Regulations, title 22, section 66270.1(c) and other similar, unit-specific regulatory requirements, this Facility has two closed hazardous waste management units, Ponds 8 and 9. Due to the proximity and similarity of waste managed, for the purposes of this Permit, the two closed HWMUs shall be considered as one Post Closure Unit. Ponds 8 and 9 are described in detail in the Approved Application, and are as follows:

##### **UNIT NAME:**

Ponds 8 and 9

##### **LOCATION:**

Ponds 8 and 9 are located along the eastern perimeter of the Facility, adjacent to the Dominguez Channel (see Figure 2).

##### **ACTIVITY TYPE:**

Groundwater monitoring, cap inspection and maintenance.

##### **ACTIVITY DESCRIPTION:**

The activity includes groundwater monitoring, site inspections, repair and maintenance of the monitoring wells, pond asphalt/concrete cover, and other associated structures and or equipments as described in Appendix E of the Approved Application. The Facility has an extensive groundwater monitoring and remediation system. This groundwater monitoring and remediation system is ongoing in accordance with RWQCB Cleanup and Abatement Order (CAO) No. 88-70, and as modified by the RWQCB. Since the entire Facility is covered by the corrective action specified in the CAO, the compliance monitoring conducted for the shallow aquifer, as related to Ponds 8 and 9, is considered a "Corrective Action Monitoring Program".

The monitoring network consists of two side-gradient wells (H-85 and H-86) and four down-gradient wells (H-87, H-88, H-89, and H-105). The side-gradient wells H-85 and H-86 were designed to represent background water quality conditions since it is not possible to locate wells directly up-gradient of the regulated units. The locations of the six monitoring wells are shown in Figure 2. These wells have been designated as the

Point of Compliance (POC) wells for Appendix IX monitoring. The groundwater shall be monitored in accordance with RWQCB Cleanup and Abatement Order No. 88-70, and as modified by the RWQCB, and in accordance with Section 6 and Appendix E of the Approved Application.

#### PHYSICAL DESCRIPTION:

Ponds 8 and 9 were constructed in 1969 in an abandoned channel created when the Dominguez channel was built in the 1940s. They are incised 8 to 15 feet below ground surface, and have reinforced concrete floors with corrugated-steel sheet piling and reinforced gunite walls. Pond 8 has a capacity of 380,000 gallons, a surface area of 6,013 square feet, and a depth of 12 feet. Pond 9 has a capacity of 3,400,000 gallons, a surface area of 37,740 square feet, and a depth of 14 feet. Pond 8 (all sides) and the south and east sides of Pond 9 are constructed of corrugated-steel sheet piling extending 26 to 35 ft below ground surface. Sheet piling joints are seal welded for water tightness. Pond floor to sheet piling corners are sealed with 3/4-inch packing rod, rubber caulking, and primer. The north and west sides of Pond 9 are constructed of 3-inch thick reinforced gunite tapering to a 9-inch thick reinforced concrete floor. Pond floors are constructed of reinforced concrete between 6 and 32 inches thick. The gunite walls and concrete floors are reinforced with 6-inch by 6-inch grids of welded wire mesh steel. Pond-floor construction joints are sealed with 6-inch wide continuous strips of plastic waterstop Dura-Joint between slabs.

Ponds 8 and 9 shall be backfilled with engineered fill as provided in section 14 of the Pond Improvement Plan submitted with the Approved Application. The backfilled area shall include an appropriate cap to minimize infiltration of precipitation and surface water into the backfill material. Backfilling the ponds shall eliminate future maintenance of the original pond construction materials. All existing piping leading into the ponds shall be rerouted. Backfill design considerations include geotechnical work to evaluate settlement, liquefaction, and slope stability; the design of an appropriate cap, and limitations on future use if any. The surface of the backfilled areas shall be paved with either 4-inches of asphalt or with 6-inches of reinforced concrete slab where heavy loads are anticipated. The backfill for Pond 9 shall be engineered for foundation support of an 80,000-barrel capacity storm water storage tank, which shall be inspected, operated, and maintained under Operation and Maintenance procedures as described in Appendix E of the Approved Application and as applicable to other onsite water storage tanks.

A precast concrete sump shall be connected to an existing storm drain pipe protruding into Pond 9, which shall discharge into the sump for temporary detention of storm water during rainy seasons. This sump shall be provided with a dedicated pump situated on a pad above the sump that shall transfer water from the sump to the 80,000-barrel storm water storage tank. The sump, which shall be placed on the bottom of Pond 9, shall be equipped with a lid that can be opened as needed for visual observation and, if deemed

warranted, personnel entry for inspection and maintenance purposes. Approval for this improvement plan shall be required by DTSC as well as the City of Los Angeles Department of Building and Safety (LADBS).

#### MAXIMUM CAPACITY:

Pond 8 capacity is 380,000 gallons. Pond 9 capacity is 3,400,000 gallons. These Ponds shall be backfilled. The backfilled area shall include an appropriate cap to minimize infiltration of precipitation and surface water into the backfill material. An 80,000 barrel above-ground storage tank shall be constructed on top of the backfill area of Pond 9.

#### WASTE SOURCES:

Until November 1994, the Facility used Ponds 8 and 9 for flow equalization (Pond 9) and polishing (Pond 8) of storm water and process wastewaters. Ponds 8 and 9 received petroleum refinery primary and secondary oil/water/solids separation sludges, which are Resource Conservation and Recovery Act (RCRA) F037 and F038 wastes. The water was sent to the on-site treatment facility for possible discharge under a National Pollutant Discharge Elimination System (NPDES) permit into the Dominguez Channel. However, due to elevated copper and zinc concentrations, the water could not be discharged to the channel. Therefore, the water was discharged to the Los Angeles County Sanitation District (LACSD) through Industrial Wastewater Discharge Permit No. 14887 R-1, provided the water met the requirements of the LACSD discharge permit.

Between 1994 and 2007, Ponds 8 and 9 were used to retain storm water that had not been commingled (non-commingled) with process wastewater, raw materials, intermediate/finished products, byproducts or waste. Pond 8 was not utilized for routine storm water detention or retention, but may be employed during large storm events. Pond 9 received storm water that was from the flare area, west tank farm, tank 80067 area, and the northwest tank farm. Flow into Pond 9 was manually regulated using the Martin gates within the tank containment areas, which prevented the capacity of the pond from being exceeded. The Martin gates also prevented the spread of contamination due to a spill or other unplanned event. The duration of retention depended on the amount of precipitation, but was generally pumped out quickly. The LACSD requires quarterly sampling of the storm water as part of the current permit requirements. No water is currently discharged into the Dominguez Channel from Ponds 8 and 9 under the existing NPDES permit due to elevated concentrations of zinc and copper.

#### WASTE TYPES:

Previous waste held in the Pond included petroleum refinery primary and secondary oil/water/solid separation sludge. Former waste constituents may include antimony, arsenic, barium, beryllium, cadmium, chromium, copper, lead, mercury, molybdenum, nickel, selenium, silver, thallium, vanadium, zinc, volatile organic compounds, semi-

volatile organic compounds, and polyaromatic hydrocarbons. A list of chemicals potentially in Ponds 8 and 9 is provided in Table 1 and Appendix C of the approved Application.

RCRA HAZARDOUS WASTE CODES:

Formerly included F037, F038. A list of chemicals potentially in Ponds 8 and 9 is provided in the Appendix C of the approved Application.

CALIFORNIA HAZARDOUS WASTE CODES:

A list of chemicals potentially in Ponds 8 and 9 is provided in the Appendix C of the approved Application.

**PART V. SPECIAL CONDITIONS**

- (a) The Permittee shall comply with the requirements specified in California Code of Regulations, title 22, section 66264.75 and include the monitoring and response program data in each year's Annual Report to be submitted each March 1.
- (b) Until the Permittee has completed the backfilling and capping of the Ponds, no hazardous waste shall be stored in Ponds 8 and 9 for any period of time.
- (c) Until the Permittee has completed the backfilling and capping of the Ponds, the Permittee shall implement the plan dated October 29, 2008, submitted by the Facility to prevent the accumulation of any liquid/waste in Ponds 8 and 9 using the vacuum trucks and/or pumps. If under extreme emergencies it becomes necessary to use Pond 8 and/or 9 to temporarily store overflow of storm, the fluid in the Pond(s) shall be sampled prior to pumping out. The record of analysis shall be sent to DTSC as part of the semiannual groundwater monitoring report.
- (d) The Permittee shall conduct inspections, monitoring repair and maintenance during the post closure care period of groundwater monitoring wells, Ponds 8 and 9 surface and storm water sump in accordance with Operations and Maintenance Plan of Appendix E of the Approved Application.
- (e) The Permittee shall conduct annual inspection, repair and maintenance of the storm water sump before rainy season for sediment accumulation and to verify its structural integrity. The stormwater sump surface and the aboveground tank surface containment area should be epoxy coated to make it impervious to any spills.
- (f) The Permittee shall secure relevant permits from all local, state and federal agencies for the proposed backfilling, capping of the Ponds and construction of the stormwater sump and the aboveground tank in the Pond 8 and/or 9 areas.
- (g) All designs and plans for the backfilling, capping of Ponds 8 and 9, stormwater sump and aboveground tank shall also be submitted to DTSC for concurrence. The Post Closure Permit may be modified after the final approval, if necessary.
- (h) All remedies including the backfilling, capping of the Ponds, and installation of the stormwater sump and the aboveground tank in the Ponds 8 and/or 9 areas (as described in Section 6 of the Approved Application) shall be completed within twenty four months of the effective date of this Post Closure Permit.
- (i) Pursuant to Civil Code section 1471(c), DTSC has determined that a land use covenant is reasonably necessary to protect present or future human health or safety or the environment as a result of the presence on land of hazardous materials as defined in Health and Safety Code section 25260. The Permittee

and DTSC shall sign and record, within twelve months of issuance of this Post Closure Permit, a land use covenant to restrict use of property.

- (j) The groundwater shall be monitored in accordance with Los Angeles Regional Water Quality Control Board (RWQCB) Cleanup and Abatement Order No. 88-70 and/or any subsequent order and in accordance with Section 6 and Appendix E of the Approved Application.
- (k) The post closure cost estimate and financial assurance shall be revised to include the cost of the backfilling, capping of the Ponds and construction and installation of the stormwater sump and the aboveground tank in the Pond 9 area if the work has not been completed within twenty four months of the effective date of this Post Closure Permit.
- (l) The Permittee shall install the above-ground storage tank in accordance with Section 14 of the Approved Application to store excess storm water formerly stored in the Ponds in order to meet the refinery needs and meet the requirements of the refinery's Clean Water Act permit and the September 2005 Waste Discharge Requirements.

## **PART VI. CORRECTIVE ACTION**

### **A. SUMMARY OF THE CORRECTIVE ACTION AND GROUNDWATER REMEDIATION**

Corrective action at the Facility is under the oversight of the RWQCB, pursuant to Cleanup and Abatement Order 88-70. Corrective action plans have been submitted to the RWQCB in the form of hydrocarbon recovery well installation plans. The first wells were installed in 1985 and they have been installed on an as-needed basis since then. The Facility's current monitoring well network consists of 197 wells. Of these, 171 wells are screened within the Water Table Aquifer, 14 wells are screened within the Gaspur/Gage Aquifer, 9 are screened within the Lynwood Aquifer, and 3 are screened within the Silverado Aquifer. These wells are used to monitor the dissolved-phase constituents and the light non-aqueous phase liquid (LNAPL) pools. The nature and extent of both the site-wide and RCRA dissolved-phase contaminant plumes are summarized in Appendix E of the Approved Application.

Based on the results of the historic sampling record, the RWQCB approved a reduced list of site-wide monitoring constituents in 2006. The reduced list consists of VOCs and oxygenates (MTBE, TBA, DIPE) by EPA Method 8260B, and TPH-gasoline and TPH-diesel by EPA Method 8015. The reduced list and sampling protocols are described in the Sampling and Analysis Plan for LAR, dated October 2007, and submitted to the RWQCB. A work plan to implement a pilot test to address the dissolved-phase VOC concentrations along the western perimeter was submitted to RWQCB in November 2007. The 2007 Sampling and Analysis Plan for the site-wide monitoring program identifies the wells used to monitor the site-wide contaminant plumes. Modifications to the sampling plan were made in 2009 with approval from the RWQCB; however, no changes were made to the sampling plan associated with the RCRA monitoring wells.

The site-wide constituents of concern (COCs) are benzene, MTBE, TBA, DIPE, TPH-g, and TPH-d. Contour plots of benzene, MTBE, TBA, and DIPE are included in the quarterly and/or reports for each aquifer, and are submitted to both the RWQCB and the DTSC. Additional contour plots for other COCs or constituents will be prepared as necessary.

### **B. CONDITIONS**

The Permittee shall be responsible to make sure that corrective action is conducted at the Facility pursuant to Health and Safety Code, sections 25187 and 25200.10. Corrective action shall be carried out under the oversight of the RWQCB pursuant to Cleanup and Abatement Order 88-70 issued in 1988, as modified by the RWQCB and any other future requirements by RWQCB, and USEPA.



