

CHAPTER 2.0

PROJECT DESCRIPTION

PROJECT OBJECTIVES

The proposed project (described in detail beginning on page 2-8) includes Refinery modifications that will improve the air quality in the South Coast Air Basin (Basin) by producing cleaner-burning reformulated gasoline for use in motor vehicles. Cleaner-burning gasoline will reduce emissions of criteria and toxic air pollutants and, thereby, help to achieve and maintain federal and state ambient air quality standards in the Basin.

The objectives of the proposed project are as follows:

- Comply with the state mandated phase out of MTBE from gasoline.
- Comply with California's Phase 3 Reformulated Fuels requirements.

REGULATORY BACKGROUND

California gasoline specifications are governed by both state and federal agencies. During the past decade, federal and state agencies have imposed numerous requirements on the production and sale of gasoline in California. In December 1999, the California Air Resources Board (CARB) developed additional regulations that affect the composition of gasoline in California. In order to comply with these additional regulations, Ultramar Diamond Shamrock (Ultramar) will require modifications to its Wilmington Refinery (Refinery).

In 1990, the amendments to the federal Clean Air Act (CAA) conditionally required states to implement programs in federal carbon monoxide (CO) non-attainment areas to require gasoline to contain a minimum oxygen content in the winter beginning in November 1992. In response to the federal CAA requirements to reduce CO emissions, California established a wintertime oxygenate gasoline program requiring between 1.8 and 2.2 weight percent oxygen content in gasoline.

In addition, the CAA directed the U.S. Environmental Protection Agency (U.S. EPA) to adopt federal reformulated fuel gasoline (RFG Phase 1) regulations applicable starting January 1995 in the nine major metropolitan areas of the country with the worst ozone pollution, including the South Coast Air Basin. The federal CAA required that RFG 1 contain at least 2.0 weight percent oxygen year-round. In addition to the federal RFG Phase 1 requirements, California adopted regulations for reformulated gasoline in 1991 (RFG Phase 2). Because of the federal requirements for oxygen content in RFG Phase 1, an oxygen content specification was incorporated in the RFG Phase 2 California reformulated gasoline regulations. The RFG Phase 2 requirements were implemented in March 1996. A summary of the air quality benefits from the RFG Phase 2 requirements are shown in Table 2-1. The RFG Phase 2 specifications are shown in Table 2-2 below.

TABLE 2-1

STATEWIDE EMISSION BENEFITS ASSOCIATED WITH
RFG PHASE 2 REGULATIONS*

POLLUTANT	Reduction	
	Tons per Day	Percent
Hydrocarbons	190	17
Nitrogen oxides	110	11
Carbon Monoxide	1,300	11
Sulfur oxides	30	80
Potency-weighted sum of toxic species	--	40

*Source: CARB, 1999.

Neither RFG Phase 1 or 2 regulations specified the type of oxygenate required. While there are several oxygenates that can be used to meet the oxygenate requirement for gasoline, methyl tertiary butyl ether (MTBE) and ethanol are used most frequently. In 1996, over 95 percent of the gasoline used in California was blended with MTBE (CARB, 1999).

In California and other parts of the U.S., the use of MTBE and other ether-based oxygenates in gasoline raised environmental and health concerns. Recent legislation in California (SB 521, The MTBE Public Health and Environmental Protection Act of 1997) directed the University of California to conduct a study of the health and environmental risks and benefits of MTBE in gasoline compared to other oxygenates. SB 521 also required the Governor to take appropriate action based on the findings of the report and information from public hearings.

In consideration of this study, public testimony, and other relevant information, California's Governor Davis found that, "on balance, there is significant risk to the environment from using MTBE in gasoline in California." In response to this finding, on March 25, 1999, the Governor issued Executive Order D-5-99 which directed, among other things, that California phase out the use of MTBE in gasoline by December 31, 2002. As part of the Executive Order, on December 9, 1999, CARB adopted new gasoline specifications which are known as California Reformulated Gasoline Phase 3 (RFG Phase 3) requirements. A summary of RFG Phase 3 requirements are shown in Table 2-2.

The RFG Phase 3 requirements prohibit the use of MTBE after December 31, 2002, while establishing more stringent standards for sulfur and benzene content in gasoline. Taken together, the RFG Phase 3 requirements are intended to preserve current emission reduction benefits associated with MTBE and to gain additional hydrocarbon, nitrogen oxide and toxic air pollutant emissions reductions. Sulfur is the only fuel parameter that simultaneously reduces emissions of hydrocarbons, NOx, and toxics. Therefore, lowering sulfur content provides additional NOx reductions (CARB, 1999). The two distillation standards (T50 and T90) are being relaxed (see

TABLE 2-2

REFORMULATED GASOLINE PHASE 3 REQUIREMENTS*

PROPERTY	RFG Phase 2 Requirements	RFG Phase 3 Requirements
RVP (psi)	7.0	6.9**
Benzene (vol. %)	1.00	0.80
Sulfur (ppmw)	40	20
Aromatic Hydrocarbons (vol. %)	25	25
Olefins (vol. %).	6.0	6.0
Oxygen (wt. %)	1.8 to 2.2	1.8 to 2.2
T50 °F***	210	213
T90 °F***	300	305

Source: CARB, 1999.

* Based on the flat limit standard for producers, there are “average” and “cap” limits for all gasoline sold throughout the distribution system.

** The listed RVP limit applies when the Evaporative Model is activated within the Predictive Model. If the Evaporative Model is not activated the flat limit for RVP is 7 psi.

*** T50 and T90 is the temperature at which 50 and 90 percent, respectively, of gasoline is distilled.

Table 2-2). In addition, the RFG Phase 3 requirements provide flexibility in meeting the Reid vapor pressure (RVP) standard.

To realize full emission reduction benefit and flexibility that would be provided by CARB Phase 3 reformulated gasoline, relief from the federal RFG oxygenate requirement is necessary. Section 211(k)(2)(B) of the federal Clean Air Act expressly authorizes the U.S. EPA Administrator to waive the 2.0 weight percent minimum oxygen requirement for federal RFG, in whole or in part “for any ozone non-attainment area upon a determination by the Administrator that compliance with such requirement would prevent or interfere with the attainment by the area of a national primary ambient air quality standard.”

California has requested that the U.S. EPA wave the year-round 2.0 percent by weight oxygen requirement for federal RFG in each of California’s three current federal RFG areas, including the Basin. The waiver is justified by CARB’s technical analysis which shows that maintaining the federal 2.0 weight percent oxygen requirement after MTBE has been eliminated in California gasoline will diminish the extent to which the California RFG Phase 3 requirements can achieve emission reductions over and above the reductions achieved in the federal program. The loss of additional benefits from the California program will interfere with attainment of national ambient air quality standards for ozone, PM10, and PM2.5 (CARB, 1999). However, this EIR and project is being proposed assuming the U.S. EPA does not grant the waiver.

CARB estimates that the RFG Phase 3 requirements will reduce (on a state-wide basis) hydrocarbon emissions by 0.5 tons per day, NOx emissions by 19 tons per day, and will eliminate MTBE concentrations. Potency weighted toxic emissions are expected to decrease by about seven percent. These emission reductions were based on comparing the properties of the 1998 average fuel to the properties of a representative RFG Phase 3 fuel. The RFG Phase 3 requirements are expected to preserve and enhance the motor vehicle emission reduction benefits of the current program and will further aid in meeting the emission reductions required by the State Implementation Plan (CARB, 1999).

In order to comply with RFG Phase 3 requirements, including eliminating the use of MTBE in gasoline, Ultramar is proposing modifications to its existing Refinery.

NEED FOR EMISSION REDUCTIONS

California continues to violate state and federal ambient ozone standards. Most of the state does not meet state or federal ozone standards. California’s plan for achieving the federal ozone standard is contained in the California State Implementation Plan (SIP) that was approved by the CARB in 1994. A significant part of the emission reductions in the SIP are from controlling vehicles and their fuels. Table 2-3 below shows the ROG and NOx contribution from motor vehicles and stationary sources. Mobile source emissions account for approximately 70 percent of ozone precursors statewide. The SIP also calls for additional motor vehicle emission reductions in the Basin of about 75 tons per day of ROG and NOx, but it does not specify how the reductions are to be achieved.

TABLE 2-3

OZONE PRECURSOR CONTRIBUTION FROM MOTOR VEHICLES

	ROG	NOx	ROG + NOx	Percent
On-Road Gasoline Vehicles	1588	1574	3162	45
On-Road Diesel Vehicles	64	507	571	8
Other Mobil Sources	321	695	1016	14
Stationary Sources	735	633	1368	20
Area-Wide Sources	779	95	874	13
Total	3487	3504	6991	100

Source: CARB, 1999

The state and federal CO standards are now attained in most areas of California. The requirements for cleaner vehicles and fuels have been primarily responsible for the reduction in CO, despite significant increases in population and the number of vehicle miles traveled each day. While the Basin is designated as non-attainment, violations of the state and federal CO standards are now limited to only a small portion of Los Angeles County. No violations have occurred in the other

three counties of the Basin (Orange, Riverside, and San Bernardino) since 1992. California RFG Phase 2 requirements helped bring most areas in the state into CO attainment. Additional emission reductions will be needed in the future to keep pace with the increases in population and vehicle usage.

The majority of California, including the Basin, is designated as non-attainment for the state PM10 standards.

PROJECT LOCATION

The proposed project will be constructed at the Refinery which is located at 2402 East Anaheim Street in the Wilmington district of the City of Los Angeles in the southern portion of Los Angeles County (see Figures 2-1 and 2-2). All portions of the proposed project are within the confines of the existing Refinery. The Refinery is bounded to the north by Anaheim Street and industrial uses. Also northward of Anaheim Street is another major refinery complex. The Refinery is bounded on the south by an area used previously for oil field production facilities and which is now developed for marine cargo transport and storage facilities and other Port of Long Beach related uses. A Hydrogen Plant is located adjacent to and immediately west of the Ultramar Refinery (west of the Dominguez Channel) on Henry Ford Avenue. To the west of Henry Ford Avenue are additional industrial and commercial uses and the Port of Los Angeles. To the east are automobile storage yards, a cogeneration plant and a petroleum coke calcining plant. The Terminal Island Freeway (Interstate 47) runs through the Refinery boundaries. Historically, there were oil production facilities scattered throughout this general area, none of which are producing. The closest residential area is about one mile northwest of the Refinery in Wilmington.

LAND USE AND ZONING

This general area is zoned for heavy industrial uses (M3-1VL). The land use in the vicinity of the Refinery includes oil production and refineries, hydrogen plants, coke calcining, power generation, automobile wrecking/dismantling facilities, and other industrial facilities. The City of Los Angeles' "VL" designation limits construction of buildings and structures to a height not greater than 45 feet. The City of Los Angeles in December 1996, enacted a zoning ordinance which eliminated the 1VL height limit designation for the Refinery to make it consistent with the local land use plan (Los Angeles City Ordinance No. 171439, 1996).

The Refinery is located within the Wilmington-Harbor City Planning Area (City of Los Angeles), which permits heavy industrial uses including petroleum refining on the Ultramar property (City of Los Angeles, 1993). A conditional use permit has not been issued for the Refinery and is thus not required for this project. The Wilmington-Harbor City Plan places no additional restrictions on refineries, and specifically allows for construction without regard to height limitations.

The Ultramar Refinery is located within the Coastal Zone, as defined by the California Coastal Act. The proposed project will require issuance of a Coastal Development Permit to assure that the project will comply with the coastal protection requirements of the Coastal Act.

Insert Figure 2-1

Insert Figure 2-2

EXISTING REFINERY CONFIGURATION AND OPERATION

Crude oils and distillates (both of which are also referred to as feedstocks), used to produce gasoline and other petroleum products, are delivered to marine terminals in the Port of Los Angeles/Port of Long Beach by ship. Feedstocks are delivered to the Refinery by pipelines. Crude Oil is processed in the crude unit where it is heated and distilled into components, most of which are processed in downstream Refinery units. The heavy residual oil leaving the crude unit is further distilled in the vacuum unit to yield additional, lighter hydrocarbon products and the vacuum residuum. The lighter hydrocarbon components from the crude unit and vacuum unit are fed to other Refinery units for further processing, primarily the gas oil hydrotreater, the Unibon, and the naphtha hydrotreater unit. The feedstocks are refined into the major Refinery products which include unleaded gasoline, diesel, jet fuels, low sulfur distillates, other distillate fuels, petroleum coke, and sulfur. Elemental sulfur and petroleum coke are produced as a by-product of the refining process. Major processing units at the Refinery include the crude and vacuum distillation, delayed coking, catalytic reforming, hydrotreating, fluid catalytic cracking, alkylation, sulfur recovery, and auxiliary systems. Under the existing Refinery configuration, about 78,000 barrels per day (bpd) of crude oil and about 50,000 bpd of distillates are purchased and processed at the Refinery. Figure 2-3 provides a plot plan of the existing Refinery and Figure 2-4 provides the existing Refinery flow diagram.

PROPOSED PROJECT MODIFICATIONS

The NOP/IS completed for this project (SCAQMD, 2000) indicated that the proposed project would include new units (New Crude Unit Complex, Alkylation Unit, Sulfur Recovery Unit, Merox Treater, boiler, and Sour Water Stripper) and modifications to existing units including the Gas Oil Hydrotreater, Platformer, and Butamer Unit. After further review of the proposed project needs, it was determined that these new units and modifications to existing units are not needed to comply with CARB Phase 3 requirements and have been removed from the proposed project.

In order to produce gasoline that complies with RFG Phase 3 requirements, Ultramar must modify existing processing units, as described below. In addition, these changes require modifications to current tank operations, and installation of new auxiliary equipment. Figure 2-5 shows the location of the proposed project modifications. Figure 2-6 shows the revised Refinery flow diagram following completion of the proposed project. A summary of the proposed project is shown in Table 2-4.

Modifications to Existing Units

Fluid Catalytic Cracking Unit (FCCU): Ultramar is proposing to install a new debutanizer in the FCCU. The new debutanizer will improve product separation. An existing debutanizer will be modified into a depentanizer. These modifications will improve the separation of propane, butane, and pentane from the FCCU overhead streams and, in turn, provide a means to control the vapor pressure of the gasoline pool. Modifications will include, new accumulators, pumps, reboiler, vessels, and heat exchangers.

Insert Figure 2-3.

Insert Figure 2-4.

Insert Figure 2-5.

Insert Figure 2-6.

Piping modifications will occur in the Selective Hydrogenation Unit (SHU) to remove sulfur and assist in producing RFG Phase 3 gasoline in compliance with the sulfur limit. An existing dryer column will be converted to a depropanizer. A new propane/propylene (PP) stream will be produced from the overhead of the depropanizer. This stream will be stored in two new bullets described below in the Storage Tank Modifications.

**TABLE 2-4
PROPOSED REFINERY MODIFICATIONS**

Process Change/Equipment Description	Nature of Change
RVP Control	
Fluid Catalytic Cracking Unit – Debutanizer	Modifications New
Depentanizer	Modifications
Depropanizer	Modifications
Propane/Propylene Storage Bullets	New
Light Ends Recovery Unit/Naphtha Hydrotreater Unit – Debutanizer	Modifications New
Reduce Sulfur Content of Gasoline	
Fluid Catalytic Cracking Unit – Selective Hydrogenation Unit	Modifications Modifications
Light Ends Recovery Unit/Naphtha Hydrotreater Unit	Modifications
Olefin Treater	Modifications
Utilities	
Fuel Gas Mercaptan Extraction Unit	New
Fire Water System	Modifications
Plant Air System	Modifications
Refinery Fuel Gas System	Modifications
Cooling Water System	Modifications
Elimination of MTBE	
Storage Tank – Refinery	Modifications
Gasoline Distribution System	Modifications
Other Modifications	
Pipelines	New
Changes to Material Transport	Modifications

Light Ends Recovery Unit/Naphtha Hydrotreater Unit: The Naphtha Hydrotreater removes sulfur from naphtha allowing compliance with the sulfur limitation on fuels. A new debutanizer will be added to separate butanes and pentanes in order to provide control of the vapor pressure and T50 and T90 distillation temperatures of the gasoline. The existing depropanizer in the Light Ends Recovery Unit will be modified, by adding a surge drum, to recover butane for processing in the

Butamer Unit. Modifications to the Naphtha Hydrotreater Unit will include new accumulators, pumps, reboiler, distillation column, and heat exchangers.

Olefin Treater: The existing Olefin Treater (Unit 60) will be converted to a hydrotreater to allow further removal of sulfur from the FCCU stream. The existing Olefin Treater treats FCCU gas for olefin removal. As a result of the proposed project, the feed to the Olefin Treater will be heavier and contain more sulfur. Therefore, the Olefin Treater will be converted to a hydrotreater to remove sulfur from these Refinery streams in order to comply with the sulfur limitations on fuels. Olefins will continue to be controlled in the Olefin Treater and through modifications described in the FCCU. This modification includes changes to piping, and a new catalyst.

Fuel Gas Mercaptan Extraction Unit: Modifications described for the Light Ends Recovery Unit/ Naphtha Hydrotreater Unit will produce gases from the overhead of the depropanizer, which contains sulfur compounds exceeding the allowable limit for use as fuel gas for the Refinery. To treat these overhead gases for Refinery use, a Mercaptan Treater will be installed. Treated overhead gases will be routed and blended into the Refinery fuel gas system for use as refinery fuel.

Storage Tank Modifications: The service on several storage tanks will be modified. MTBE currently is stored in a tank at the Refinery. MTBE will no longer be blended into gasoline or delivered to the Refinery, therefore, the service of all tanks currently in MTBE service will be changed to other gasoline blending stocks and the throughput of the tanks also is expected to change. Two new propane/propylene bullets will be constructed as a result of a new stream from the FCCU depropanizer overhead.

Changes to the Gasoline Distribution System

The proposed project includes the removal of MTBE as an oxygenate in gasoline produced by the Refinery. Instead, Ultramar will use ethanol as the oxygenate in gasoline. Ethanol is currently the only oxygenate approved for use by CARB. Because of the characteristics of ethanol, it will not be blended into gasoline at the Refinery. Rather it will be blended into gasoline at the distribution terminals owned and operated by third parties. Ultramar does not distribute gasoline through company-owned distribution terminals but distributes through third party terminals. Any required modifications to the distribution terminals receiving gasoline from Ultramar would be the responsibility of the terminal owner.

Ultramar currently uses third party terminals located at four locations within the jurisdiction of the SCAQMD – Carson, Colton, Orange, and Wilmington (Los Angeles). *The terminals that are expected to be used to distribute gasoline with ethanol include the Equilon Carson Terminal, the Equilon Wilmington Terminal, the Kinder Morgan Orange Terminal, and the Kinder Morgan Colton Terminal. The modifications, changes, and environmental impacts associated with the Equilon Terminals have been included as part of the Equilon CARB Phase 3 Final EIR (SCAQMD, 2001b).*

The modifications to the Kinder Morgan Orange and Colton Terminals include the conversion of existing fixed roof tanks to internal floating roof tanks and a change in service of the tanks from diesel to ethanol. In addition, new truck unloading racks have or are proposed to be added to both the Orange and Colton Terminals. The impacts associated with modifications to the Kinder Morgan Terminals are included in the Cumulative Impact analysis herein (see Chapter 5).

Changes to Material Transport

The proposed project will result in increased transportation of some Refinery feedstocks including high octane blending stock and ethanol. The proposed project also would result in a decrease in the transportation of MTBE. The proposed project is expected to result in a decrease of about 32 vessels per year transporting MTBE and an increase in marine vessels of about 23 vessels per year of high octane blending components. Therefore, an overall decrease of about nine vessels per year is expected. Ethanol is expected to be transported into the Wilmington area via railcars. Most other products will continue to be shipped via pipeline to/from the Refinery and by-products (sulfur and petroleum coke) will generally continue to be shipped by truck.

Pipelines: Additional tank storage capacity will be required in connection with the proposed project. This will be accomplished through a combination of proposed changes in the operation of certain existing Refinery tanks; and construction of new pipelines connecting the Refinery to off-site terminals. Ultramar is still in the planning stages for the construction of new pipelines but expects to build pipelines between the Refinery and the Los Angeles Department of Water and Power (LADWP) tank farm and/or ARCO facilities as part of the proposed project. The existing tank system will be used to minimize the need for construction of new storage tanks at the Refinery, as described in the Storage Tank Modifications section above. The locations of the new pipelines are shown in Figure 2-7.

Ultramar is proposing the construction of new pipelines. Three new ten-inch pipelines would be constructed between the Refinery and ARCO for the transport of isooctane/alkylate, butane, and propane/propylene. The three pipelines would be placed into the same trench (*estimated to be about three feet by five feet*) and constructed at the same time. Ultramar is also proposing the construction of three pipelines from the Refinery to the LADWP terminal, one six-inch pipeline and two 16-inch pipelines. The pipelines will transport petroleum products and tank draw water.

Truck Loading Rack: A new truck loading rack will be constructed to accommodate the production of propane/propylene from the FCCU. The modifications will include one loading bay equipped with two loading arms, and new transfer pumps.

Other Modifications

Other modifications to the Refinery include modifications to the fire water system, plant air system, cooling water system, and to the fuel gas system to support the modified Refinery units.

Insert Figure 2-7.

CONSTRUCTION OF THE PROPOSED PROJECT

Construction Schedule

The construction schedule for the proposed project is expected to begin in the third quarter of 2001 and be completed by early 2003. The construction of the project is expected to take place from approximately 6:30 a.m. to 5:30 p.m., Monday through Friday.

Labor Force

Construction of the proposed project is expected to employ a maximum of about 350 workers (see Figure 2-8). Proposed parking for the construction workers is expected to be within the existing Refinery, south of the Terminal Island Freeway and at an off-site location adjacent to the southern portion of the Refinery.

OPERATION OF THE PROPOSED PROJECT

The proposed project is expected to require additional eight permanent employees to operate the new equipment. Operation of the proposed new facilities is expected to result in an estimated increase of about ten trucks per day at the Refinery. Additional truck traffic is also expected associated with the transport of ethanol to third party terminals.

PERMITS AND APPROVALS

Ultramar's proposed project will require approvals from a variety of federal, state, and local agencies (see Table 2-5). Examples of general permits and approvals required for the Refinery are summarized below. The following discussion summarizes representative permits required for the Refinery but is not necessarily exhaustive. Many of these permits are not expected to require modifications due to the proposed project.

Federal Approvals

Direct federal approvals for the proposed project are not expected. Many of the U.S. EPA regulations and requirements are implemented by state or local agencies. The Spill Prevention Control and Countermeasure (SPCC) Plan may require modifications to assure that all new and modified Refinery units are included in the Plan. It should be noted that Table 2-5 identifies the environmental permits required by the existing Refinery.

State Approvals

The Ultramar Refinery is located in the coastal zone; therefore, a Coastal Development Permit will be required from the California Coastal Commission. Construction-related permits may be required from the California Occupational Safety and Health Administration (CalOSHA) for demolition, construction, excavation, and tower and crane erection. Any transport of heavy construction equipment, which requires the use of oversized transport vehicles on state highways,

Insert Figure 2-8.

will require a Caltrans transportation permit. The project may require revisions to the National Pollutant Discharge Elimination System (NPDES) permit, including storm water runoff, from the Regional Water Quality Control Board.

Local Approvals

The SCAQMD has responsibility as lead agency for the CEQA process and for certification of the EIR because it has primary approval authority over the proposed project (CEQA Guidelines §15051(b)). Air emission Permits to Construct/Operate for modifications to existing units will be required. Certain components of the proposed project would also be subject to existing SCAQMD rules and regulations. Permits or plan approvals also may be required by SCAQMD Rule 1166 for soil remediation activities and demolition activities.

The Los Angeles County Sanitation Districts (LACSD) has responsibility for issuance of industrial wastewater discharge permits which are required for discharges into public sewers.

The City of Los Angeles Fire Department is responsible for issuing permits for storage tanks and for review and approval of Risk Management Plans which will be required as part of the proposed project. The Fire Department also is responsible for assuring that the City fire codes are implemented.

Building and grading permits for the proposed project will be required from the City of Los Angeles to assure that the project complies with the Uniform Building Code.

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TABLE 2-5 (Cont.)

Agency Permit or approval	Requirement	Applicability to Project
State (cont.)		
State Water Resources Control Board (SWRCB)	National Pollutant Discharge Elimination System (NPDES) Permit/Waste Discharge reqt.	Project-related modifications to applicable stormwater runoff plans.
Caltrans	Transportation Permit (CCR 21, Division 2, et.seq.)	Project-related application to transport overweight, oversize, and wide loads on state highways.
CalOSHA	Process Safety Management (PSM) Program (40 CFR Part 1910).	PSM program may require updating due to project revisions including written process safety information, hazardous operation (hazop) analysis, development of operating procedures, training procedures, and pre-start safety review.
	Construction-related permits (CCR Title 8, Division 1, Chapter 4)	Excavation, construction, demolition and tower and crane erection permit.
	Written Hazard Communication Standard Compliance Program	Project-related modifications to Refinery facilities/operations involving hazardous materials (including needed modifications to employee training programs).
California Coastal Commission	Coastal Development Permit	Required for project-related modifications within the coastal zone.
Local		
South Coast Air Quality Management District (SCAQMD)	Permits to Construct and Title V of the 1990 Clean Air Act.	SCAQMD Rule 201 and Regulation XXX: Permit to construct and operate. Applications are required to construct, operate or modify air emission sources.
	Permits to Operate	SCAQMD Rule 203: Permit to Operate. Applications are required to operate air emissions sources.
	California Environmental Quality Act (CEQA) Review	The SCAQMD is the lead agency for preparation of the environmental document (Public Resources Code §21067).

TABLE 2-5 (Cont.)

Agency Permit or approval	Requirement	Applicability to Project
SCAQMD (cont.)	<p>Prevention of Significant Deterioration</p> <p>Standards for Approving Permits</p> <p>BACT and Modeling</p> <p>T-BACT and Risk Assessment</p> <p>Soil Contamination</p>	<p>SCAQMD Regulation XVII: Requirements for modifications to stationary sources in attainment areas.</p> <p>SCAQMD Rule 212: Permits cannot be issued if air contaminants create a public nuisance or exceed capacity limits. Also requires public notification of significant project.</p> <p>SCAQMD Regulation XX and Regulation XIII, New Source Review: New or modified permit units must apply BACT, obtain offsets and perform modeling of new emissions increases. Pursuant to Rule 1304, the proposed project is exempt from offsets because it is being required under state law.</p> <p>SCAQMD Rule 1401: NSR of Carcinogenic Air Contaminants. New or modified permit units must comply with maximum allowed risk levels.</p> <p>SCAQMD Rule 1166: Requires the control of VOC emissions from soil remediation activities.</p>
City of Los Angeles	<p>Building Permit</p> <p>Grading Permit</p> <p>Plumbing and electrical permit</p> <p>Hazardous Materials Business Plan</p> <p>Franchise Permit</p> <p>Acutely Hazardous Material Registration/Risk Management Plan</p> <p>Above ground storage of hazardous/flammable materials (Uniform Fire Code, Article 80)</p>	<p>Required for project-related foundations and buildings to assure compliance with UBC, etc.</p> <p>Required prior to grading.</p> <p>General construction permit.</p> <p>Storage of project-related hazardous materials.</p> <p>Required for pipeline construction.</p> <p>Project-related use/storage of acutely hazardous materials.</p> <p>Project-related storage of regulated materials.</p>

TABLE 2-5 (Concluded)

Agency Permit or approval	Requirement	Applicability to Project
County Sanitation Districts of Los Angeles	Industrial Wastewater Discharge Permit (CA Health & Safety Code, Division 6, Chapter 4, Article 1, Section 6521)	Project-related modifications to the Refinery's industrial wastewater discharge to the sewer if it affects the quantity, quality, or method of industrial wastewater disposal.