

## **CHAPTER 2**

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**CHAPTER 2.0**

**PROJECT DESCRIPTION**

**PROJECT OBJECTIVES**

The proposed project (described in detail beginning on page 2-9) includes modifications to the Ultramar Refinery, tank farms, and a marine terminal to comply with the CARB Phase 3 reformulated gasoline requirements. 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.
- Provide sufficient storage for petroleum products.

**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, CARB developed additional regulations that affect the composition of gasoline in California. In order to comply with these additional regulations, Ultramar will require modifications to its Wilmington Refinery (Refinery), Marine Tank Farm, and Ultramar Marine Terminal.

In 1990, the amendments to the federal Clean Air Act (CAA) conditionally required states to implement programs in federal 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 and 3 specifications are shown in Table 2-2 below.

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).

**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.

**TABLE 2-2**  
**CARB REFORMULATED GASOLINE REQUIREMENTS<sup>(1)</sup>**

PROPERTY	RFG Phase 2 Requirements	RFG Phase 3 Requirements
RVP (psi)	7.0	6.9 <sup>(2)</sup>
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 <sup>(3)</sup>	210	213
T90 °F <sup>(3)</sup>	300	305

Source: CARB, 1999.

- (1) Based on the flat limit standard for producers, there are “average” and “cap” limits for all gasoline sold throughout the distribution system.
- (2) 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.
- (3) T50 and T90 is the temperature at which 50 and 90 percent, respectively, of gasoline is distilled.

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. *The Governor has proposed that the compliance date for the MTBE phase out in gasoline be extended to December 31, 2003 due to concerns about the availability of ethanol and sufficient gasoline supplies (CEC, 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, 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, NO<sub>x</sub>, and toxics. Therefore, lowering sulfur content provides additional NO<sub>x</sub> reductions (CARB, 1999). The two distillation standards (T50 and T90) are being relaxed (see Table 2-2). In addition, the RFG Phase 3 requirements provide flexibility in meeting the Reid vapor pressure (RVP) standard.

CARB estimates that the RFG Phase 3 requirements will reduce (on a state-wide basis) hydrocarbon emissions by 0.5 tons per day, NO<sub>x</sub> 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, Marine Tank Farm, Olympic Tank Farm and the Marine Terminal.

### **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 1997. A significant part of the emission reductions in the SIP are from controlling vehicles and their fuels. Table 2-3 shows the reactive organic gases (ROG) and NO<sub>x</sub> 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  
1995 Statewide Emissions (tons/day)**

	ROG	NOx	ROG + NOx	Percent of Total
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 particulate matter less than 10 micron in diameter (PM10) standards. The federal PM10 standards were not exceeded in the Basin in 2000.

**TYPE OF EIR**

As discussed above, the proposed project is integral to the production of reformulated fuels. The CEQA document for the modifications to the Ultramar Wilmington Refinery for the production of CARB Phase 3 fuels (Final EIR: Ultramar, Inc. Wilmington Refinery CARB Phase 3 Proposed Project) was certified by the SCAQMD in December 2001. State CEQA Guidelines, 14 California Code of Regulations (CCR) §15000 *et seq.*, require additional analysis to a previously prepared and certified EIR if subsequent changes are proposed in the project which involve new significant adverse environmental impacts not previously considered, or new information of substantial importance which was not known and could not have been known becomes available and shows significant effects previously examined will be substantially more severe (CEQA Guidelines §§15153 and 15162).

After Ultramar's existing lease expired, the Port of Los Angeles would only renew the lease for a portion of the Marine Terminal's property at the Port of Los Angeles, which provided storage facilities for various petroleum products. To supplement their storage facilities, Ultramar acquired two tank farms previously used by the Los Angeles Department of Water and Power. Ultramar is proposing modifications to these terminals to allow the storage of petroleum products (primarily gasoline and gasoline blending components). It has been determined that these modifications in support of their CARB Phase 3 project constitutes new information of substantial importance which may result in new significant adverse environmental impacts and/or increase the severity of adverse significant impacts previously identified in the previous Final EIR for Ultramar's CARB Phase 3 project. Consequently, this EIR to be prepared for the proposed project will be subsequent to and compliment the December 2001 Final EIR: Ultramar, Inc. Wilmington Refinery CARB Phase 3 Proposed Project (SCH No. 2000061113), and will be referred to as the "Subsequent EIR."

### PROJECT LOCATION

The proposed project will occur at four locations: (1) the Ultramar Wilmington Refinery which is located at 2402 East Anaheim Street; (2) the Marine Tank Farm located at 130 "A" Street; (3) the Olympic Tank Farm located at 1220 N. Alameda Street; and (4) the Marine Terminal located at 961 La Paloma Avenue. All four facilities are located within the Wilmington district of the City of Los Angeles in the southern portion of Los Angeles County (see Figures 2-1 and 2-2). The proposed modifications are within the confines of these existing facilities.

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.

The Marine Tank Farm is bounded by "A" Street to the north, Avalon Boulevard to the east, Harbor Belt Lane to the south, and Fries Avenue to the west.

The Olympic Tank Farm is bounded by Alameda Street to the west, railroad tracks to the south, the Equilon Truck Terminal and Refinery to the east, and various commercial land uses to the north.

The Marine Terminal is located at Berth 164 on Mormon Island in the Port of Los Angeles. The Marine Terminal is located on the water within the port and the water is located on the north side of the facility. La Paloma is located on the east and Shore Terminal Company is located northeast of the Marine Terminal. The marine terminals for other oil companies are also located on Mormon Island including Equilon and Kinder Morgan.

Figure 2-1 goes here

Figure 2-2 goes here

## **LAND USE AND ZONING**

The Refinery is zoned for heavy industrial uses (QM3-1VL). 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 "Q" designation indicates that the land use at the Refinery has been qualified or modified.

The Marine Tank Farm is zoned for heavy industrial uses (M3). The Marine Tank Farm is located near the Port of Los Angeles. Land use in the vicinity of the tank farm includes port uses, such as loading and unloading facilities, railroad tracks, and auto terminals.

The Olympic Tank Farm is zoned for heavy industrial uses (M3). The land use in the vicinity of this tank farm includes scrap metal recycling facilities, intermodal container facilities, petroleum storage and distribution facilities and refineries.

The Marine Terminal is located within the jurisdiction of the Port of Los Angeles and is zoned for heavy industrial use. The Port is changing the land use of the main portion of the Ultramar Marine Terminal to other port uses (but still heavy industrial). The land use in the vicinity of the Marine Terminal includes other petroleum marine terminals, other port terminals, and a steel import facility.

The Refinery, Marine Tank Farm, and Olympic Tank Farm are located within the Wilmington-Harbor City Planning Area (City of Los Angeles), which permits heavy industrial uses including petroleum refining (City of Los Angeles, 1999). A conditional use permit has not been issued for the Refinery or tank farms and is not required for the proposed modifications. The Wilmington-Harbor City Plan places no additional restrictions on refineries, and specifically allows for construction without regard to height limitations.

The Ultramar Refinery and Marine Terminal are located within the Coastal Zone, as defined by the California Coastal Act. The proposed project is expected to require the issuance of a Coastal Development Permit or a de minimus waiver to assure that the project will comply with the coastal protection requirements of the Coastal Act. The Marine Terminal is located within the Port of Los Angeles. The Port has an approved local coastal program and can issue its own coastal development permits for facilities within its jurisdiction.

## **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 by-products 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.

### **ULTRAMAR CARB PHASE 3 PROPOSED PROJECT**

In order to produce CARB Phase 3 compliant gasoline, Ultramar is installing new processing facilities and modifying existing processing units. In addition, changes are required to install new storage tanks, modify the operations of certain existing storage tanks, and modify operations at tank farms and at the marine terminal. Neither the previously analyzed CARB Phase 3 project at the Ultramar Refinery nor the currently proposed project will increase the Refinery's crude throughput capacity. The modifications proposed by Ultramar to comply with the CARB Phase 3 requirements are described in the following section. The project description has been divided into two sections: (1) new and modified facilities that were evaluated in the December 2001 Final EIR prepared for the Ultramar CARB Phase 3 Proposed Project (SCAQMD, 2001f), referred to herein as the previous Final EIR; and (2) modifications to various storage tanks and terminals that are the subject of this Subsequent EIR.

### **PROJECT MODIFICATIONS IDENTIFIED IN THE PREVIOUS FINAL EIR**

The modifications associated with the Ultramar CARB Phase 3 project that were evaluated in the previous Final EIR are included in Table 2-4. For a more detailed description of these units, processes and modifications, see the previous Final EIR (SCAQMD, 2001f).

The modifications associated with the Ultramar CARB RFG Phase 3 project that were evaluated in the previous Final EIR included modifications to its existing Wilmington Refinery. At the Refinery, process unit modifications are required to the existing Fluid Catalytic Cracking Unit, Selective Hydrogenation Unit, Light Ends Recovery Unit/Naphtha Hydrotreater Unit, and Olefin Treater. To treat overhead gases generated by the modifications to the Light Ends Recovery Unit/Naphtha Hydrotreater, a new Fuel Gas Mercaptan Extraction Unit will be installed. The

**Figure 2-3 goes here**

**Figure 2-4 goes here**

service on several storage tanks that currently handle MTBE will be modified and the throughput of the tanks also is expected to change. Two new propane/propylene (PP) bullets will be constructed as a result of a new stream from the FCCU depropanizer overhead.

**TABLE 2-4  
PROPOSED REFINERY MODIFICATIONS ANALYZED IN  
THE PREVIOUS FINAL EIR**

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

Ultramar proposed the construction of three new ten-inch pipelines between the Refinery and British Petroleum (the former ARCO) refinery for the transport of isoctane/alkylate, butane, and propane/propylene. Ultramar also proposed the construction of three pipelines from the Refinery to the Olympic Tank Farm (formerly owned by the Los Angeles Department of Water and Power), one six-inch pipeline and two 16-inch pipelines. The pipelines were proposed to transport petroleum products and tank draw water.

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A new truck loading rack was proposed 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 to the Refinery included modifications to the fire water system, plant air system, cooling water system, and to the fuel gas system to support the modified Refinery units.

**PROJECT DESCRIPTION FOR THE REVISED CARB PHASE 3 PROJECT**

Ultramar is proposing modifications of two storage tank facilities and the marine terminal, as described below. In addition, these changes require modifications to current tank operations, and installation of new auxiliary equipment. Figure 2-5 shows the revised Refinery flow diagram following completion of the proposed project. A summary of the proposed project changes that are being evaluated as part of this Subsequent EIR are shown in Table 2-5.

**TABLE 2-5**

**SUBSEQUENT EIR PROPOSED CARB PHASE 3 MODIFICATIONS**

<b>Tank ID</b>	<b>Current Contents</b>	<b>Proposed Contents</b>	<b>Diameter (ft)</b>	<b>Tank Volume max (bbls)</b>	<b>Annual Thruput (mmbbls)</b>
<b>REFINERY</b>					
82-TK-11 <sup>(1)</sup>	Not Applicable	Gasoline/Gasoline Blend Components	150	150,000	9
<b>MARINE TANK FARM</b>					
199-TK-301 <sup>(2)</sup>	Fuel Oil/Water	Organic Liquid/Naphtha	75	30,000	10
<b>OLYMPIC TANK FARM</b>					
299-TK-1501 <sup>(3)</sup>	Fuel Oil/Water	Gasoline/Gasoline Blend Components	150	150,000	5
299-TK-1502 <sup>(3)</sup>	Fuel Oil/Water	Gasoline/Gasoline Blend Components	150	150,000	5
299-TK-1503 <sup>(1)</sup>	Fuel Oil/Water	Gasoline/Gasoline Blend Components	150	150,000	5
299-TK-1504 <sup>(3)</sup>	Fuel Oil/Water	Gasoline/Gasoline Blend Components	150	150,000	5
299-TK-501 <sup>(2)</sup>	Fuel Oil/Water	Organic Liquid/Naphtha	100	50,000	3
299-TK-1003 <sup>(3)</sup>	Fuel Oil/Water	Gasoline/Gasoline Blend Components	135	100,000	3
299-TK-1004 <sup>(3)</sup>	Fuel Oil/Water	Gasoline/Gasoline Blend Components	135	100,000	3
299-TK-1002 <sup>(3)</sup>	Fuel Oil/Water	Organic Liquid/Naphtha	135	100,000	3
299-TK-1001 <sup>(3)</sup>	Fuel Oil/Water	Gasoline/Gasoline Blend Components	135	100,000	3
299-TK-721 <sup>(2)</sup>	Fuel Oil/Water	Gasoline/Gasoline Blend Components	120	72,000	2
299-TK-722 <sup>(2)</sup>	Fuel Oil/Water	Gasoline/Gasoline Blend Components	120	72,000	2
<b>MARINE TERMINAL</b>					
99-TK-21001 <sup>(2)</sup>	Organic Liquid/Naphtha	Gasoline/Gasoline Blend Components	60	21,000	1

- (1) Proposed new tank.
- (2) Proposed modifications to an existing storage tank.
- (3) Existing tank proposed to be removed and replaced.

Figure 2-5 goes here

### **Modifications to the Ultramar Wilmington Refinery**

The modifications to the Ultramar Wilmington Refinery include the installation of a new 150,000 barrel storage tank with an external floating roof equipped with primary and secondary seals. The tank will store gasoline and gasoline blending components. Construction of the tank will include a leak detection system. Piping modifications and new blending pumps will also be required in order to direct gasoline and blend components produced at the Refinery to the new tank (see Figure 2-3). This tank will be built to comply with SCAQMD Best Available Control Technology (BACT) guidelines such that a dome will be constructed on the tank.

### **Modifications to the Marine Tank Farm**

The modifications to the Marine Tank Farm will include the modifications of one existing storage tank (199-TK-301). Modifications to Storage Tank 199-TK-301 will include the installation of a secondary seal (the tank is currently equipped with an external floating roof with a primary seal), tank modifications to allow for a low pump-out heel, and a change of service that will allow the storage of various products including naphtha. New pipeline pumps will be installed and piping modifications will be required (see Figure 2-6).

### **Modifications to the Olympic Tank Farm**

A number of modifications will be required for the Olympic Tank Farm. A summary of the modifications are included in Table 2-5 and shown in Figure 2-7. Three existing tanks will be removed (Tanks 55005, 55006, and 80001) and replaced with new 150,000-barrel capacity welded tanks (Tanks 299-TK-1501, 299-TK-1502, and 299-TK-1504) with external floating roofs and primary and secondary seals. All three external floating roof tanks will be equipped with a dome for further control of VOCs and a leak detection system. The service of these three tanks will be changed from fuel oil/water to gasoline and gasoline blending components. Another new 150,000-barrel new storage tank (299-TK-1503) is being installed with an external floating roof equipped with primary and secondary seals. Tank 299-TK-1503 is proposed to be in gasoline and gasoline blend component service and will include a leak detection system.

An existing tank (55007) will be modified to install an internal floating roof with primary and secondary seals. The number of the tank will be changed to Storage Tank 299-TK-501. The service of this tank will be changed from fuel oil/water to store various products including naphtha. A double bottom also will be installed on this tank. A leak detection system will be installed on this new tank.

Four existing storage tanks (80005, 80004, 80002, and 80003) will be removed and replaced with new 100,000-barrel capacity welded tanks (299-TK-1003, 299-TK-1004, 299-TK-1002, and 299-TK-1001) with external floating roofs equipped with primary and secondary seals. The service of the tanks will be changed from fuel oil/water to gasoline and gasoline blending components. All four external floating roof tanks will be equipped with a dome. A leak detection system will be installed on all four tanks.

Figure 2-6 goes here

Insert Figure 2-7.

Existing tanks (80007 and 80001) will be modified to install internal floating roofs with primary and secondary seals. The number of the tanks will be changed to Storage Tanks 299-TK-721 and 299-TK-722. The service of the tanks will be changed to from fuel oil/water to gasoline and gasoline blend components. Double bottoms and a leak detection system will be installed on these storage tanks.

Other modifications to the Olympic Tank Farm include new pipeline pumps, new firewater pumps, and piping modifications. Overall, the modifications to the Olympic Tank Farm are expected to result in a 42 percent increase in storage capacity with a current storage capacity of about 704,000 barrels and a proposed capacity (after implementation of the project) of about 1,215,000 barrels.

### **Modifications to the Marine Terminal**

As a result of lease negotiations with the Port of Los Angeles, the size of the Ultramar Marine Terminal has been reduced. A large portion of the Marine Terminal is being dismantled and remediated, as necessary, for return to the Port for other port-related land uses (see Figure 2-8). A number of storage tanks that provided storage facilities for various petroleum products will be closed and dismantled (see Figure 2-8). Ultramar has acquired two terminals (i.e., the Olympic and Marine Tank Farms) previously used by the Los Angeles Department of Water and Power in order to provide additional storage. Ultramar will retain the use of a small portion of the existing Marine Terminal and is proposing modifications to this portion of the site. Modifications to Storage Tank 99-TK-21001 will include the installation of external floating roofs and a change of service from organic liquid/naphtha to gasoline and gasoline blending components (see Figure 2-8).

### **Changes to Material Transport**

The proposed project is expected to result in an increase in gasoline blending stocks transported to the Marine Terminal via marine vessel. As analyzed in the previous Final EIR, about 32 marine vessels per year were associated with the transport of MTBE to the Marine Terminal, which will be eliminated following completion of the proposed project. No increases in marine vessels were evaluated in the previous Final EIR. The currently proposed modifications are estimated to result in 97 marine vessels per year to transport gasoline blending stocks. Therefore, the overall revised proposed project is expected to result in an increase of about 65 marine vessels per year ( $97 - 32 = 65$ ) over current conditions. The raw materials Ultramar receives at the Marine Terminal are transferred to its tank farms and Refinery via pipeline. *Ultramar is proposing to increase the amount of gasoline blending components imported to the Marine Terminal in order to make up for the loss in volume associated with the removal of MTBE from gasoline. No increase in the amount of gasoline produced by Ultramar is expected.*

The materials stored at the Marine and Olympic Tank Farms and Marine Terminal will be transported to/from the Refinery via existing and new pipelines. The impacts of the construction of the new pipelines were evaluated in the CARB Phase 3 EIR (SCAQMD, 2001f).

Figure 2-8 goes here.

## **CONSTRUCTION OF THE PROPOSED PROJECT**

### **Construction Schedule**

The construction schedule for the overall CARB Phase 3 proposed project is expected to begin in the second quarter of 2002 and be completed by second quarter 2003. Construction associated with the previously proposed project evaluated in the 2001 Final EIR and the currently proposed project are expected to occur at the same time and overlap. Therefore, the impact analyses associated with construction activities include both portions of the proposed project, i.e., the project described in the previous 2001 Final EIR and the revised project included herein. 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 overall CARB Phase 3 proposed project (i.e., project described in the previous 2001 Final EIR and the revised project included herein) is expected to employ a maximum of about 150 workers (see Figure 2-9). Proposed parking for the construction workers is expected to be within the existing Refinery and workers will be transported via bus to the other locations. The construction associated with the modifications evaluated in this Subsequent EIR will run concurrently with the construction associated with the CARB Phase 3 project evaluated in the previous Final EIR.

## **OPERATION OF THE PROPOSED PROJECT**

The proposed project is expected to require an additional eight permanent employees to operate the terminals. Operation of the terminals is not expected to result in any increase in truck traffic to/from the Refinery or terminals.

## **PERMITS AND APPROVALS**

Ultramar's proposed project will require approvals from a variety of federal, state, and local agencies (see Table 2-6). Examples of general permits and approvals required for the Refinery and terminals are summarized below. The following discussion summarizes representative permits required for the Refinery and terminals 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 and the terminals are included in the Plan. It should be noted that Table 2-6 identifies the environmental permits required by the existing Refinery and terminals.

Figure 2-9 goes here

### **State Approvals**

The Ultramar Refinery is located in the coastal zone; therefore, a Coastal Development Permit or de minimus waiver is expected to 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, 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)). Permits to Construct/Operate for new equipment and 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 and Port of Los Angeles to assure that the project complies with the Uniform Building Code. The Port of Los Angeles has responsibility for issuance of development permits for the Ultramar Marine Terminal. The Cities of Carson and Los Angeles will need to issue permits for the development of the pipeline that was described in the December 2001 EIR.

TABLE 2-6

FEDERAL, STATE AND LOCAL AGENCY PERMITS AND APPLICATIONS

Agency Permit or Approval	Requirement	Applicability to Project
<b>Federal</b>		
<p>U.S. EPA</p> <p>Occupational Safety and Health Administration</p> <p>U.S. Department of Transportation</p>	<p>Spill Prevention Control and Countermeasure Plan (40 CFR Part 112)</p> <p>Title III of the federal Clean Air Act Amendments of 1990, including development of an Accidental Release Program.</p> <p>Title III of the Superfund Amendments and Reauthorization Act of 1986, including Section 313 – Annual Release Reporting (Form R)</p> <p>Compliance with 29 CFR 1920, including preparation of an Emergency Response Plan, a Fire Prevention Plan, Process Hazards Safety Review, and employee training.</p> <p>Compliance with DOT regulations regarding transportation of hazardous substances (40 CFR Part 172)</p>	<p>Modifications to Refinery facilities that affect the potential for oil or flammable materials discharge into navigable waters.</p> <p>Modifications to Refinery facilities/ operations involving listed air toxics or use of extremely hazardous substances. Requires the preparation of an RMP.</p> <p>Modifications to Refinery facilities/ operations involving use or storage of extremely hazardous substances or other regulated hazardous materials.</p> <p>Modifications to Refinery facilities involving materials that are acutely toxic, flammable, or explosive.</p> <p>Project-related transportation (import/export) of hazardous substances.</p>
<b>State</b>		
<p>California Environmental Protection Agency, Dept. of Toxic Substances Control (DTSC)</p> <p>State Water Resources Control Board (SWRCB)</p>	<p>On-site hazardous waste generation.</p> <p>Proposition 65 – California’s Safe Drinking Water and Toxic Enforcement Act of 1986</p> <p>National Pollutant Discharge Elimination System (NPDES) Permit/Waste Discharge reqt.</p>	<p>Project-related modifications to applicable hazardous materials and hazardous waste generation and handling at the Refinery.</p> <p>Project-related exposure of the public to listed carcinogens or reproductive toxins due to proposed modifications. Public notification is required under certain specified conditions.</p> <p>Project-related modifications to applicable stormwater runoff plans.</p>

**TABLE 2-6 (Cont.)**

<b>Agency Permit or Approval</b>	<b>Requirement</b>	<b>Applicability to Project</b>
<b>State (cont)</b>		
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.
<b>Local</b>		
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).
	Prevention of Significant Deterioration	SCAQMD Regulation XVII: Requirements for modifications to stationary sources in attainment areas.
	Standards for Approving Permits	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.

TABLE 2-6 (Cont.)

Agency Permit or Approval	Requirement	Applicability to Project
SCAQMD (cont.)	<p>VOC Emissions from Fugitive Components</p> <p>VOC Emissions from Storage Tanks</p> <p>BACT and Modeling</p> <p>T-BACT and Risk Assessment</p> <p>Asbestos Emissions</p> <p>Soil Contamination</p>	<p>SCAQMD Rule 1173: Fugitive Emissions of Volatile Organic Compounds. Controls VOC leaks from various fugitive components including valves, fittings, pumps, pressure relief devices, and compressors.</p> <p>SCAQMD Rule 1178, Further Reductions of VOC Emissions from Storage Tanks: Requires emission reduction from storage tanks at specified petroleum facilities.</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 1403: Asbestos Emissions from Demolition. Controls emissions from certain demolition and renovation activities.</p> <p>SCAQMD Rule 1166: Requires the control of VOC emissions from soil remediation activities.</p>
City and Port 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>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>

**TABLE 2-6 (Concluded)**

<b>Agency Permit or Approval</b>	<b>Requirement</b>	<b>Applicability to Project</b>
City and Port of Los Angeles (cont.)	<p>Acutely Hazardous Material Registration/Risk Management Plan</p> <p>Above ground storage of hazardous/flammable materials (Uniform Fire Code, Article 80)</p>	<p>Project-related use/storage of acutely hazardous materials.</p> <p>Project-related storage of regulated materials.</p>
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.

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