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SCH No. 2000061113

**ULTRAMAR, INC.**

**WILMINGTON REFINERY**

**CARB PHASE 3 PROPOSED PROJECT**

**FINAL SUBSEQUENT ENVIRONMENTAL IMPACT REPORT**

**ATTACHMENT I**

**Statement of Findings, Statement of Overriding Considerations,  
and Mitigation Monitoring Program**

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WILMINGTON REFINERY**

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## **I. INTRODUCTION**

Ultramar, Inc. (a Valero Energy Company) is proposing modifications to its existing Wilmington Refinery (Refinery), Marine Tank Farm, Olympic Tank Farm, and Marine Terminal to produce 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 South Coast Air Basin (Basin). The objective of the proposed project is to comply with California Governor's Executive Order D-5-99 to phase out Methyl Tertiary Butyl Ether (MTBE) and California Air Resources Board (CARB) Phase 3 Reformulated Gasoline requirements, which is expected to eliminate or minimize existing MTBE ground water contamination impacts.

The proposed refinery modifications were determined to be a "project" as defined by the California Environmental Quality Act (CEQA) (California Public Resources Code §21000 et seq.). The South Coast Air Quality Management District (SCAQMD) is the lead agency because it has primary approval authority over the project and, therefore, has prepared a Final Subsequent Environmental Impact Report (EIR) pursuant to CEQA Guidelines §15089 and §15132.

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. All documents comprising the Final EIR for the proposed project are available at the SCAQMD, 21865 East Copley Drive, Diamond Bar, California, 91765. These documents can be obtained by contacting the SCAQMD's Public Information Center at (909) 396-2039 or by accessing <http://www.aqmd.gov/ceqa/nonaqmd.html>. 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 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(d) and 15162).

After Ultramar's existing lease expired at the Mormon Island Marine Terminal in the Port of Los Angeles, the Port of Los Angeles would only renew the lease for a smaller portion of the Marine Terminal's property, which originally provided storage facilities for various petroleum products. To supplement its 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, including ethanol, which is the only oxygenate allowed under state regulations to replace MTBE). It has been determined that these proposed modifications, which support Ultramar's CARB Phase 3 project, constitute new information of substantial importance which may result in new significant adverse environmental impacts and/or increase the severity of

significant adverse impacts identified in the previous Final EIR for Ultramar's CARB Phase 3 project. Consequently, a Subsequent EIR was prepared for the proposed project to compliment the December 2001 Final EIR - Ultramar, Inc. Wilmington Refinery CARB Phase 3 Proposed Project (SCH No. 2000061113).

The Draft SEIR was released for a 45-day public review and comment period beginning on March 6, 2002 and ending on April 22, 2002. The Draft SEIR contained a detailed project description, the environmental setting for each potential impact area, analysis of potentially significant adverse environmental impacts (including cumulative impacts, project alternatives, identification of feasible mitigation measures, and other relevant topics as required by CEQA). After the close of the public comment period, a Final SEIR was prepared for certification by the SCAQMD's decisionmaking body.

Approximately 180 comment letters were received during the comment period for the Draft SEIR. Additional comments were also received at a public meeting that was held to explain the proposed project on June 20, 2002. Responses to comments were prepared and are included in Volume IV of this document. Minor modifications were made to the Draft SEIR and incorporated into the Final SEIR. The environmental disciplines that were determined to have potentially significant adverse impacts in the previous Final EIR were analyzed in the Subsequent EIR and include air quality, geology/soils, hazards and hazardous materials, hydrology/water quality, land use/planning, noise, solid/hazardous waste, and transportation/traffic. No other environmental disciplines that may be adversely affected by the currently proposed project have been identified. The Final SEIR concluded that there would be no significant adverse impacts on aesthetics, agriculture resources, biological resources, cultural resources, energy, geology/soils, hydrology/water quality, land use/planning, mineral resources, noise, population/housing, public services, recreation, solid/hazardous waste, and transportation/traffic. The environmental resources where significant adverse environmental impacts would occur after implementation of mitigation measures were air quality and hazards. The proposed project impacts on air quality and hazards are expected to remain significant following mitigation. No potentially significant adverse impacts were identified that could be mitigated to less than significant. Accordingly, a Statement of Findings and Overriding Considerations is required for these significant adverse impacts.

The Final Subsequent EIR includes the revised project description, the environmental setting, environmental impacts and mitigation measures, cumulative impacts, project alternatives, a Health Risk Assessment (Volume II), a Hazards Analysis (Volume III), and Responses to Comments (Volume IV). All documents comprising the Final Subsequent Environmental Impact Report (EIR) for the proposed project are available at the SCAQMD, 21865 East Copley Drive, Diamond Bar, California, 91765. These documents can be obtained by contacting the SCAQMD's Public Information Center at (909) 396-2039 or by accessing <http://www.aqmd.gov/ceqa/nonaqmd.html>.

When considering a proposed project that has one or more significant adverse effects for approval, a public agency must make one or more written findings for each of those significant

adverse effects, accompanied by a brief rationale for each finding (Public Resources Code §21081 and CEQA Guidelines §15091). The analysis in the Final Subsequent EIR concluded that the proposed project has the potential to generate significant adverse air quality and hazard impacts.

For a proposed project with significant adverse impacts, CEQA requires the lead agency to balance the economic, legal, social, technological, or other benefits of a proposed project against its unavoidable environmental impacts when determining whether to approve the project. Under CEQA Guidelines §15093(a), “if the specific economic, legal, social, technological, or other benefits of a project outweigh the unavoidable adverse environmental effects may be considered ‘acceptable.’” Thus, after adopting the Statement of Findings, as discussed above, the agency must adopt a “Statement of Overriding Considerations” to approve a project with significant adverse environmental effects.

The following sections of this document include the Statement of Findings, Statement of Overriding Considerations and, pursuant to CEQA Guidelines §15097, a Mitigation Monitoring Plan.

## **II. SUMMARY OF THE PROPOSED PROJECT**

In response to areas identified with MTBE ground water contamination, California Governor Davis signed Executive Order D-5-99 (Executive Order) on March 25, 1999, which directs that MTBE be phased out of California’s gasoline no later than December 31, 2002 to mitigate existing ground water contamination problems. Due to concerns regarding the availability of ethanol, the Governor has proposed to extend the compliance date until December 31, 2003. The Executive Order also directs CARB to adopt gasoline regulations (i.e., CARB Phase 3) to facilitate the removal of MTBE and preserve and enhance the existing motor vehicle emission reduction benefits of the current program (i.e., CARB Phase 2).

A number of modifications associated with the Ultramar CARB Phase 3 proposed project were evaluated in the December 2001 Final EIR. The proposed modifications evaluated in the 2001 Final EIR primarily involved modifications to the existing Ultramar Wilmington Refinery, including the existing Fluid Catalytic Cracking Unit, Selective Hydrogenation Unit, Light Ends Recovery Unit/Naphtha Hydrotreater Unit, Olefin Treater, and the Light Ends Recovery Unit/Naphtha Hydrotreater. A new Fuel Gas Mercaptan Extraction Unit and two new propane propylene bullets were also proposed. The service of several storage tanks that currently handle MTBE will be modified and the throughput of the tanks also is expected to change. In addition, Ultramar proposed construction of three new ten-inch pipelines between the Refinery and British Petroleum (BP, formerly ARCO) refinery for the transport of isooctane/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). The 2001 Final EIR also evaluated the transportation impacts associated with the transport of ethanol.

Ultramar is now proposing some additional modifications to its existing Wilmington Refinery, Olympic Tank Farm, Marine Tank Farm, and Marine Terminal, in order to comply with CARB RFG Phase 3 requirements. The primary objective of these modifications is to comply with the state mandated phase-out of MTBE from gasoline and replace it with ethanol and comply with California's Phase 3 reformulated fuels requirements.

### **Refinery Modifications**

In addition to the Refinery modifications proposed in the December 2001 Final EIR, a new 150,000 barrel storage tank is proposed for the storage of gasoline and gasoline blending components. The new storage tank will comply with the BACT requirements, which include the installation of primary and secondary seals and the use of a dome over the top of the tank. Piping modifications and new blending pumps will also be required. The proposed project will not increase the crude throughput capacity of the Refinery and is expected to result in a decrease in the production of gasoline produced by the Refinery.

### **Marine Tank Farm Modifications**

The modifications to the Marine Tank Farm will include the installation of a secondary seal on an 30,000 barrel existing storage tank, 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.

### **Olympic Tank Farm Modifications**

A number of modifications will be required for the Olympic Tank Farm. The changes will result in about a 42 percent increase in storage capacity at the Olympic Tank Farm. Three existing 55,000 barrel tanks will be removed and replaced. These replacement tanks will be new 150,000-barrel capacity welded tanks with external floating roofs. BACT for these tanks consist of primary and secondary seals and a dome. The service of these three tanks will be changed to gasoline and gasoline blending components. A leak detection system will be installed on the replacement tanks.

A new 150,000-barrel storage tank is being installed with an external floating roof and BACT, consisting of primary and secondary seals and a dome. This new tank is proposed to be in gasoline and gasoline blend component service and will include a leak detection system.

An existing 80,000-barrel storage tank will be modified to install an internal floating roof with primary and secondary seals. The service of this tank will be changed to store various products including naphtha.

Four existing 80,000 barrel storage tanks will be replaced with four new 150,000-barrel capacity, welded tanks with external floating roofs and BACT, consisting of primary and secondary seals and a dome. The service of three of these tanks will be gasoline and gasoline blending

components and one tank will stored various products including naphtha. A leak detection system will be installed on all four tanks.

Two existing 80,000 barrel storage tanks will be modified to install internal floating roofs with primary and secondary seals. The service of the tanks will be changed to gasoline and gasoline blend components. Double bottoms also will be installed on these storage tanks.

Other modifications to the Olympic Tank Farm include new pipeline pumps, new firewater pumps, and piping modifications.

### **Marine Terminal Modifications**

As a result of lease negotiations with the Port of Los Angeles, the size and storage capacity of the Ultramar Marine Terminal has been reduced. The Marine Terminal provided storage facilities for various petroleum products. A number of storage tanks will be closed and dismantled. Ultramar has acquired two terminals previously used by the Los Angeles Department of Water and Power (the Olympic and Marine Tank Farms, see above descriptions) in order to make up for the loss in storage at the Marine Terminal.

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 one existing storage tank will include the installation of an external floating roof and a change of service that will allow the storage of various products including naphtha.

### **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. The proposed project is expected to result in an increase of about 65 marine vessels per year compared to existing conditions. Ultramar receives materials at the Marine Terminal and transfers the materials to its tank farms and Refinery via pipeline. The materials will be blended at the Refinery and transferred to third party terminals via pipeline.

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 December 2001 Final EIR.

Under existing requirements, MTBE would be phased out and ethanol would be added to the gasoline to meet oxygenate content criteria. Ethanol would not be blended at the Refinery, as is currently done with MTBE, but at gasoline distribution facilities. The distribution facilities are not owned or operated by Ultramar but are owned/operated by third parties.

### III. STATEMENT OF FINDINGS

CEQA prohibits a public agency from approving or carrying out a project for which a CEQA document has been completed which identifies one or more significant adverse environmental effects of the project unless the public agency makes one or more written finding for each of those significant effects, accompanied by a brief explanation of the rationale for each finding (CEQA Guidelines §15091). The following sets forth findings for significant adverse impacts identified in the SEIR that cannot be reduced to insignificance and the rationale for each finding. The findings are supported by substantial evidence in the record as explained in each finding. This Statement of Findings will be included in the record of project approval and will also be noted in the Notice of Determination.

#### A. POTENTIALLY SIGNIFICANT IMPACTS WHICH CANNOT BE MITIGATED TO A LEVEL OF INSIGNIFICANCE

The Final SEIR did not identify any significant adverse environmental impact that can be reduced to a level of insignificance. There are three potentially significant adverse environmental impacts that cannot be reduced to a level of insignificance: (1) air quality emissions associated with construction activities; (2) air quality emissions associated with project operation; and (3) hazards associated with project operation.

##### 1. **Construction emissions of carbon monoxide (CO), volatile organic compounds (VOC), nitrogen oxides (NO<sub>x</sub>), and particulate matter less than 10 microns in diameter (PM<sub>10</sub>) would exceed SCAQMD significance thresholds during maximum construction activity periods.**

Finding: The SCAQMD makes the following findings with respect to this impact: (1) mitigation measures were incorporated into the project that would reduce the significant adverse air quality impacts, but not to insignificance; (2) such mitigation measures are within the jurisdiction of the SCAQMD; and (3) no other feasible mitigation measures are available to lessen the significant impact to air quality during construction.

Explanation: The construction emissions of CO, VOCs, NO<sub>x</sub>, and PM<sub>10</sub> are expected to exceed the SCAQMD significance thresholds during peak construction activities. Fourteen mitigation measures to minimize these impacts were imposed on the proposed project and are set forth in the attached Mitigation Monitoring Plan.

Though these measures did not reduce construction emissions below the SCAQMD significance thresholds, no other feasible mitigation measures or project alternatives were determined to be available. Further, the emission reduction calculations were based on very conservative data and assumptions and likely overestimate actual emissions. In addition, the construction emissions will not have a long-term adverse air quality impact because these emissions will cease following the completion of the estimated one-year construction phase (actually the peak construction phase).

**2. Operation emissions of VOCs (primarily from fugitive emission sources, e.g., pumps, valves, and flanges), and NO<sub>x</sub>, sulfur oxides (SO<sub>x</sub>) and PM<sub>10</sub> (from trucks, railcars, and marine vessels) would exceed SCAQMD significance thresholds.**

Finding: The SCAQMD finds that no feasible mitigation measures or project alternatives have been identified to lessen or minimize the potentially significant adverse operational air quality impacts associated with the proposed project.

Explanation: Operation emissions of VOCs, NO<sub>x</sub>, SO<sub>x</sub>, and PM<sub>10</sub> are expected to exceed the SCAQMD significance thresholds. The proposed project requires the installation of equipment (e.g., valves, flanges, and pumps) which is a large source of fugitive VOC emissions from the proposed project. VOC emissions from fugitive components are controlled through the use of best available control technology (BACT). VOC emissions from storage tanks will also be controlled by the installation of BACT, i.e., domes on all new and modified external floating roof storage tanks and primary and secondary seals. BACT, by definition, is control equipment with the lowest achievable emission rate. The use of BACT controls emissions to the greatest extent feasible for the modified emission sources. In addition, the fugitive components will be required to be included in an inspection and maintenance program to ensure that the equipment is properly maintained. Therefore, additional VOC emission reductions (through mitigation measures) from fugitive components associated with the proposed project equipment are not feasible.

The majority of the NO<sub>x</sub>, SO<sub>x</sub>, and PM<sub>10</sub> emissions from the proposed project are from indirect emission sources, including trucks, railcars and marine vessels, used to transport gasoline blending components and ethanol. The emissions from trucks, railcars and marine vessels are expected to be significant. Since railcars and marine vessels are large contributors to significant air quality impacts, the SCAQMD evaluated whether or not it had jurisdictional authority to regulate these emissions through mitigation measures pursuant to CEQA.

CEQA Guidelines §15040(b) states, “CEQA does not grant an agency new powers independent of the powers granted to the agency by other laws.” Due to state and federal regulations, the SCAQMD has no authority to directly regulate emissions from marine vessels or locomotive engines. Additionally, the SCAQMD has extremely limited authority to indirectly control emissions from these sources. Neither the SCAQMD nor Ultramar own and control off road marine or locomotive sources, the SCAQMD cannot require these sources be retrofitted or their engines replaced.

Chapter 4 of the Final SEIR concluded that the SCAQMD must act within the constraints of the admiralty clause, and the supremacy clause of the United States Constitution. Under the supremacy clause, the SCAQMD could be prohibited from regulating ship emissions, if Congress has explicitly or implicitly foreclosed the regulation of ship

emissions. As explained in the Mobil Final EIR, the Ports and Waterways Safety Act ("PWSA") preempts the SCAQMD from regulating engine design, construction and operation of machinery to the extent that such regulation would interfere with vessel safety or protecting the marine environment. Similarly, on September 26, 1997, the United States approved Annex VI to MARPOL 73/78 regarding NO<sub>x</sub> emissions from marine diesel engines (Mobil Revised Draft EIR, Volume VII, p. 30). Under the admiralty clause, the SCAQMD is prohibited from adopting and enforcing regulations, which interfere with the proper harmony and uniformity of maritime law.

The Clean Air Act does not preempt "in-use" mitigation measures. However, in-use measures do not mitigate air quality impacts or are infeasible since, as previously evaluated in Chapter 4 of the Final SEIR, they have a tendency to increase emissions. The following "in-use" measures were considered and found to be infeasible or found to be ineffective as mitigation: using steamships in place of diesel ships; retrofitting ships with air pollution control technologies; limiting the hours of use or the number of engines used on marine vessels; using on-shore electricity during hotelling operations; prohibiting ship visits during first or second stage smog alerts; imposing fuel specifications; retarding the injection of fuel in diesel engines; offsetting ship emissions; reducing ship speeds; requiring ships to travel further off-shore; increasing the amount of material delivered per trip; obtaining local sources of oxygenates; and using other oxygenates. It was determined that imposing these types of mitigation measures would not be expected to be effective in reducing emissions in the Basin since they would only apply to one company. Generally, marine vessel a delivery trip transports common materials that are used by more than one refinery. Other companies would be able to transport the materials into the Basin without any such restrictions. Therefore, no real emission benefits would be expected.

There are some local marine vessels that have been voluntarily repowered. The SCAQMD has developed a protocol for obtaining NO<sub>x</sub> credits for repowering or retrofitting marine vessels (Rule 1631 – Pilot Credit Generation Program for Marine Vessels). Marine retrofit or repowering projects, however, are all voluntary projects to generate NO<sub>x</sub> credits applicable to the RECLAIM program. Based on exhaustive research conducted by the SCAQMD as part of the Mobil CARB Phase 2 reformulated gasoline EIR (SCAQMD, 1998), the SCAQMD does not have authority to directly regulate marine vessel emissions and the SCAQMD cannot require retrofitting, repowering or controlling emissions from marine vessels unrelated to stationary source equipment. The vessels used by Ultramar for this project are not captive (e.g. they travel outside the air basin), and thus would not qualify for such a program. Unless a dedicated marine vessel were voluntarily purchased by Ultramar, little, if any, emission benefits would result from a repowering.

The U.S. EPA has established emission standards for NO<sub>x</sub>, VOCs, CO, particulate matter, and smoke for newly manufactured and remanufactured diesel-powered locomotives and locomotive engines which have been previously unregulated. Three separate sets of emission standards have been adopted, with applicability of the standards

dependent on the date a locomotive is first manufactured. The first set of standards (Tier 0) apply to locomotives and locomotive engines manufactured from 1973 through 2001. The second set of standards (Tier 1) applies to locomotives and locomotive engines manufactured from 2002 through 2004. The final set of standards (Tier 2) apply to locomotives and locomotive engines manufactured in 2005 and later (U.S. EPA, 1997). With the new national emission standards for both newly manufactured and remanufactured locomotives originally built after 1972, future locomotive emission rates are projected to be much lower than the current emission rates. The U.S. EPA estimates that the NOx emissions will be reduced by about 62 percent from their current levels for locomotives manufactured after 2004 (U.S. EPA, 1997). The actual emission reductions are a function of the date that new locomotives come into service and are used to transport materials to/from the terminals. Since the date at which this conversion actually happens is uncertain and not guaranteed, the NOx emissions from project-related railcars are expected to remain significant. These regulations preempt state and local authorities from establishing emission standards for new or rebuilt engines. CARB has entered into a voluntary MOU with two major railroad companies in the basin to bring cleaner operating locomotives into the area.

Emissions from trucks are regulated by the U.S. EPA and the CARB. The SCAQMD has limited authority over truck emissions. The U.S. EPA and the CARB have implemented regulations to control on-road diesel engines and emission benefits associated with these regulations are expected as these regulations come into effect.

Based on the above there are no other feasible mitigation measures to minimize or eliminate the significant emissions from mobile sources related to the proposed project.

**3. Operation impacts associated with modifications to the Naphtha Hydrotreater, Light Ends Recovery Unit No. 2, and the new propane/propylene storage tanks at the Refinery could result in significant hazard impacts. Modifications to certain storage tanks at the Olympic Tank Farm could also result in significant hazard impacts.**

Finding: The SCAQMD makes the following findings with respect to this impact: (1) mitigation measures were incorporated into the project that would reduce the significant adverse hazard impacts, but not to insignificance; (2) such mitigation measures are within the jurisdiction of the SCAQMD, and the City of Los Angeles Fire Department; and (3) no other feasible mitigation measures or project alternatives have been identified to minimize the potentially significant adverse hazard impacts associated with the proposed project.

Explanation: The proposed project could result in significant adverse impacts related to the “worst-case” hazards associated with modifications to the Naphtha Hydrotreater, the Light Ends Recovery Unit No. 2, and the proposed new propane/propylene storage tanks at the Refinery. A rupture of the line leaving the debutanizer in the Naphtha

Hydrotreater could allow the 30 parts per million (ppm) threshold concentration level for hydrogen sulfide (which is based on the Emergency Response Planning Guideline (ERPG) 2 level for hydrogen sulfide) to extend an additional 165 feet, resulting in potentially significant impacts. A rupture in the sour gas line leaving the debutanizer in the Light Ends Recovery Unit also could allow the 30 ppm threshold concentration level for hydrogen sulfide to extend an additional 300 feet, resulting in potentially significant impacts. Finally, the new propane/propylene storage tanks could result in a boiling liquid expanding vapor explosion (BLEVE) that could extend an additional 355 feet, resulting in potentially significant adverse hazard impacts.

The proposed project could also result in potentially significant adverse impacts related to the “worst-case” hazards associated with modifications to storage tanks at the Olympic Tank Farm. The changes to several of the storage tanks have the potential to generate thermal radiation hazards that could extend off-site (a maximum of about 60 feet). Few individuals are expected to be exposed since the hazard zone would only extend to adjacent industrial areas. However, the potential for off-site impacts could result in an exposure to fire radiation; therefore, the proposed project has the potential for significant adverse hazard impacts.

There are a number of rules and regulations that Ultramar has or must comply with that serve to minimize the potential significant adverse impacts associated with hazards at the facility. No other feasible mitigation measures were identified for the proposed project that could reduce significant adverse hazard impacts to insignificance.

## **C. IMPACTS ASSOCIATED WITH PROJECT ALTERNATIVES**

### **1. Project alternatives are not available to reduce the potentially significant impacts.**

Finding: The SCAQMD finds that the identified project alternatives would not achieve the goals of the project with fewer or less severe environmental impacts.

Explanation: Potential adverse environmental impacts from two project alternatives were analyzed and it was determined that no feasible project alternatives were identified that would achieve the goals of the project with fewer or less severe environmental impacts than the proposed project. No alternatives were identified in the previously prepared December 2001 Final EIR that would eliminate the potentially significant adverse air quality and hazard impacts of the proposed project as compliance with the CARB Phase 3 requirements will require construction activities and modifications to the Refinery, Olympic Tank Farm, Marine Tank Farm, and the Marine Terminal. Alternatives evaluated in the previous Final EIR were developed by reviewing different methods to eliminate MTBE as an oxygenate. There are a number of other oxygenates besides MTBE and ethanol that could potentially be used in gasoline. However, with the Governor’s ban on MTBE, the requirements of the CARB Phase 3 regulations (e.g., vapor pressure limitations) and the U.S. EPA oxygenate requirements, ethanol is the only

oxygenate that can be used to replace MTBE at this time (CARB, 2000). Alternative transportation modes were evaluated but would not reduce or eliminate emissions associated with transportation.

Alternatives evaluated in this Subsequent EIR included alternative locations for the storage of petroleum products and alternatives to the transport of gasoline blending components. No feasible alternatives have been identified that would reduce the proposed project's environmental impacts to a less than significant level while achieving the project objectives. Consequently, the proposed project is considered the preferred alternative to ensure that Ultramar will be able to achieve all the objectives of the proposed project, which is to produce reformulated fuels as specified by state regulations, and minimize environmental impacts.

#### **D. STATEMENT OF FINDINGS CONCLUSION**

Changes or alterations have been incorporated into the project to mitigate or minimize the potentially significant adverse environmental effects associated with certain project impacts, i.e., air quality impacts during construction and operation, and hazards associated with proposed project operations. No additional feasible mitigation measures or project alternatives, other than those already included in the Final SEIR, have been identified that can further mitigate the potentially significant project impacts on air quality and hazards and meet the proposed project objectives.

All feasible mitigation measures identified in the Final SEIR have been adopted as set forth in the mitigation monitoring program. The SCAQMD further finds that the Final SEIR considered those alternatives or process modifications that meet the requirements of Public Resources Code §21178(g). The analysis indicated that the alternatives would not reduce to insignificant levels the significant impacts identified for the proposed project.

The proposed project is intended to minimize the impact of MTBE on ground water contamination and improve air quality in California and more specifically within the South Coast Air Basin. The need for cleaner burning fuels was identified in the 1990 federal Clean Air Act Amendments and the California Clean Air Act. Both the U.S. EPA and CARB have developed and mandated use of reformulated fuels with detailed specifications in severe non-attainment areas, such as the Basin, to reduce mobile source emissions. Based on these requirements, the SCAQMD finds that the proposed project achieves the best balance between minimizing potential adverse environmental impacts and achieving the project objectives. The SCAQMD further finds that all of the findings presented here are supported by substantial evidence in the record.

The record of approval for this project may be found in the SCAQMD's Clerk of the Board's Office located at SCAQMD Headquarters in Diamond Bar, California.

#### IV. STATEMENT OF OVERRIDING CONSIDERATIONS

If significant adverse impacts of a proposed project remain after incorporation of feasible mitigation measures, or no feasible measures to mitigate the adverse impacts are identified, the lead agency must make a determination that the benefits of the project outweigh the unavoidable, significant, adverse environmental effects, if it is to approve the project. CEQA requires the decision-making agency to balance, as applicable, the economic, legal, social, technological, or other benefits of a proposed project against its unavoidable environmental impacts when determining whether to approved the project (CEQA Guidelines §15093(a)). If the specific economic, legal, social, technological, or other benefits of a proposed project outweigh the unavoidable adverse environmental effects, the adverse environmental effects may be considered acceptable (CEQA Guidelines §15093(a)). Accordingly, a Statement of Overriding Considerations regarding potentially significant adverse environmental impacts resulting from the proposed project, as set forth below, has been prepared for the SCAQMD's decision makers' consideration. Pursuant to CEQA Guidelines §15093(c), the Statement of Overriding Considerations will be included in the record of the project approval and will also be noted in the Notice of Determination.

Having reduced the potential effects of the proposed project through all feasible mitigation measures as described above, and balancing the benefits of the proposed project against its potential unavoidable adverse impacts on air quality and hazards, the SCAQMD finds that the following legal requirements and benefits of the project outweigh the potentially significant unavoidable adverse impacts for the following reasons:

1. California Governor's Executive Order D-5-99 directs that MTBE be phased out of California's gasoline no later than December 31, 2002. The Executive Order also directs CARB to adopt gasoline regulations to facilitate the removal of MTBE without reducing the emission benefits of the existing program. The proposed project complies with the requirements of the Executive Order by phasing out MTBE from Ultramar's gasoline products while meeting the specifications of the CARB Phase 3 requirements. Due to concerns regarding the availability of ethanol, the Governor has proposed to extend the compliance date until December 31, 2003. The nature of the proposed project, as well as Public Resources Code §21178, limits the range of feasible alternatives to meet the basic project objective of complying with state reformulated fuel requirements.
2. The CARB estimates that mobile source emission reductions from the use of the Phase 3 reformulated fuels will produce local, regional and statewide air quality benefits. The use of CARB Phase 3 reformulated fuels benefits every resident in California. CARB estimates that the use of Phase 3 reformulated gasoline will result in emission decreases of about 19 tons per day of NOx by 2005 and about a seven percent reduction in potency-weighted toxic emissions over the current fuel. These projected mobile source emission reductions will produce air quality

and human health benefits. These benefits, however, were not included as part of the analysis of the proposed project's air quality impacts.

3. The long-term effect of existing SCAQMD rules and Air Quality Management Plan (AQMP) control measures is the reduction of emissions district-wide, contributing to attaining and maintaining state and federal ambient air quality standards (AAQS). The AQMP, which is updated every three years, identifies air pollutant levels relative to federal and state AAQS, establishes baseline and future emissions, and develops control measures to ensure attainment of the AAQS. Both increased construction and operation emissions associated with the proposed project will be accounted for in future revisions to the AQMP.
4. Removal of MTBE from the gasoline stream will prevent potential future contamination of soil or groundwater with MTBE, thereby removing potential human health risks and other environmental impacts associated with MTBE contamination of soil and water.
5. The analyses of the significant adverse impacts were based on conservative assumptions regarding the construction and operation of the proposed project. For example, the analysis of air quality benefits from removing old storage tanks at the Olympic Tank Farm were not taken into consideration when analyzing operational air quality impacts. The actual project impacts (e.g., construction and operation emission estimates) are expected to be less than estimated in the SEIR. Further, hazard impacts would only occur in industrial, not residential, areas where safety equipment and emergency response procedures are already in place.

In balancing the benefits of the overall project with the project's unavoidable and significant adverse environmental impacts, the SCAQMD finds that the project benefits outweigh the unavoidable adverse impacts, such that these impacts are acceptable. The SCAQMD further finds that substantial evidence presented in the Final SEIR supports the need to adopt the Final SEIR despite the project's adverse impacts.

## **V. MITIGATION MONITORING PLAN**

### **Introduction**

CEQA requires an agency to prepare a plan for reporting and monitoring compliance with and implementation of measures to mitigate significant adverse environmental impacts. Mitigation monitoring requirements are included in CEQA Guidelines §15097 and Public Resources Code §21081.6, which specifically state:

When making findings as required by subdivision (a) of Public Resources Code §21081 or when adopting a negative declaration pursuant to Paragraph (2) of subdivision (c) of

Public Resources Code §21080, the public agency shall adopt a reporting or monitoring program for the changes to the project which it has adopted or made a condition of project approval in order to mitigate or avoid significant effects on the environment (Public Resources Code §21081.6). The reporting or monitoring program shall be designed to ensure compliance during project implementation. For those changes which have been required or incorporated into the project at the request of an agency having jurisdiction by law over natural resources affected by the project, that agency shall, if so requested by the lead or responsible agency, prepare and submit a proposed reporting or monitoring program.

The provisions of CEQA Guidelines §15097 and Public Resources Code §21081.6 are triggered when the lead agency certifies a CEQA document in which mitigation measures, changes, or alterations have been required or incorporated into the project to avoid or lessen the significance of adverse impacts identified in the CEQA document. Public Resources Code §21081.6 leaves the task of designing a reporting or monitoring plan to individual public agencies.

To fulfill the requirements of CEQA Guidelines §15097 and Public Resources Code §21081.6, the SCAQMD must develop a plan to monitor project compliance with those mitigation measures adopted as conditions of approval for Ultramar's CARB Phase 3 Proposed Project. The following subsections identify the specific mitigation measures identified in the EIR and the public agency responsible for monitoring implementation of each mitigation measure.

### **General Mitigation Monitoring and Reporting**

The mitigation monitoring and reporting described in this plan is primarily the responsibility of the SCAQMD as the CEQA lead agency. The mitigation measures discussed herein are primarily the responsibility of Ultramar to implement. To certify compliance, documentation that mitigation measures have been implemented will be maintained by Ultramar to ensure potential significant environmental impacts are mitigated to the greatest extent feasible.

The environmental resources that were identified in the Final SEIR as having significant or potentially significant adverse impacts are identified below. The Final SEIR concluded that no significant adverse impacts on aesthetics, agriculture resources, biological resources, cultural resources, energy, geology/soils, hydrology/water quality, land use/planning, mineral resources, noise, population/housing, public services, recreation, solid/hazardous waste, and transportation/circulation. The Final SEIR concluded that significant adverse impacts to air quality and hazards would be expected.

**A. DETERMINATION OF ENVIRONMENTAL IMPACTS**

**AIR QUALITY IMPACTS**

**Air Quality Construction Phase Impacts**

Construction-related emissions of CO, VOCs, NO<sub>x</sub>, and PM<sub>10</sub> would exceed the SCAQMD significance threshold for daily emissions. Emission sources include worker vehicles, heavy construction equipment, grading activities, and emissions from coating activities. The mitigation measures listed below are intended to minimize the emissions associated with these sources. No feasible mitigation measures have been identified to reduce emissions from on-road trips. Additionally, no feasible mitigation measures have been identified to reduce emissions to insignificance. CEQA Guidelines §15364 defines feasible as “. . .capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, legal, social, and technological factors.”

**Air Quality Construction Phase Mitigation Measures**

Based on emission estimates from the construction phase, the significance thresholds for construction air quality impacts provided in Chapter 4 of the Final SEIR will be exceeded. Therefore, the following mitigation measures to reduce construction-related emissions shall be implemented.

- A-1 Develop a Construction Emission Management Plan for the proposed project. The Plan shall include measures to minimize air emissions from vehicles including, but not limited to: scheduling truck deliveries to avoid peak hour traffic conditions, consolidating truck deliveries, and prohibiting truck idling in excess of 10 minutes.
- A-2 Prohibit trucks from idling longer than 10 minutes at the Ultramar site.
- A-3 Use electricity or alternate fuels for on-site mobile equipment instead of diesel equipment to the extent feasible.
- A-4 Maintain construction equipment tuned up with two to four degree retard diesel engine timing.
- A-5 Use electric welders to avoid emissions from gas or diesel welders in portions of the Refinery where electricity is available.
- A-6 Use on-site electricity rather than temporary power generators in portions of the Refinery where electricity is available.

- A-7 Prior to use in construction, the project applicant will evaluate the feasibility of retrofitting the large off-road construction equipment that will be operating for significant periods. Retrofit technologies such as selective catalytic reduction, oxidation catalysts, air enhancement technologies, etc., will be evaluated. Such technologies will be required if they are commercially available and can feasibly be retrofitted onto construction equipment.
- A-8 Prior to construction, the project applicant will evaluate the feasibility of using alternative fuels in large off-road construction equipment that will be operating for significant periods. Alternative fuels can include fuel additives or modified fuels, e.g., PuriNOx, that have been demonstrated by CARB to result in emission reductions. PuriNOx fuel is comprised of the PuriNOx additive package, purified water and diesel fuel. These components are mixed in a blending unit to produce a finished fuel. The water content promotes an atomization of the mixture during fuel injection and improves combustion, while lowering combustion temperatures, reducing NOx emissions.

Water emulsion diesel fuels (e.g., PuriNOx) have a much lower energy content than regular diesel fuels which typically translates into a significant loss in fuel economy. This is offset slightly by an increase in thermal efficiency. Lubrizol, the manufacturer of PuriNOx, indicates that its product, containing 20 percent water emulsions, results in a 13 percent reduction in fuel economy. Lubrizol also warns of a power loss when operating with its fuel stating that the equipment should be tolerant of up to a 20 percent loss in power.

Emulsion-based diesel products do not meet ASTM D-975 specifications for diesel fuel due to their water content. Most manufacturers of diesel engines specify use of a ASTM D-975 compliant fuel in their engine applications. A potential user of an emulsion-based diesel fuel should confirm the suitability of the fuel for use in their specific engine application and ensure that such use would not void any aspect of the engine warrantee.

PuriNOx can be used in direct injection heavy-duty compression ignition engines, including construction equipment. Lubrizol representatives indicate that a large-scale batch blending unit has been installed in southern California. The blending unit is estimated to have a throughput of 20 million gallons per year. PuriNOx is estimated to result in a 14 percent reduction in NOx and a 63 percent reduction in particulate matter in off-road engines.

The use of PuriNOx is considered to be a feasible mitigation measure when it becomes commercially available. It is recommended that PuriNOx should be used in construction equipment, if the engine manufacturer indicates that the use

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of the fuel is compatible with the engine so that the engine warrantee is not voided.

- A-9 Use low sulfur diesel (as defined in SCAQMD Rule 431.2) where feasible.
- A-10 Use CARB certified construction equipment for all construction equipment that requires CARB certification.
- A-11 Suspend use of all construction equipment during first stage smog alerts.
- A-12 The engine size of construction equipment shall be the minimum practical size.
- A-13 Develop a fugitive dust emission control plan. Measures to be included in the plan include, but are not limited to the following: (1) water active construction sites three times per day, except during periods of rainfall. Watering construction sites two times per day complies with SCAQMD Rule 403 and provides about a 50 percent emission reduction. Watering construction sites three times per day will reduce PM10 emissions by an additional 18 percent (total control of 68 percent); (2) enclose, cover, water twice daily, or apply approved soil binders according to manufacturer's specifications to exposed piles (i.e., gravel, dirt and sand) with a five percent or greater silt content. Implementation of this mitigation measure would reduce PM10 emissions 30 to 74 percent (SCAQMD, 1993); (3) suspend all excavating and grading operations when wind speeds (as instantaneous gusts) exceed 25 mph. The emission reductions associated with this mitigation measure cannot be quantified (SCAQMD, 1993); (4) apply water three times daily, except during periods of rainfall, to all unpaved road surfaces. This mitigation measure would reduce PM10 emissions by a minimum of 45 percent (SCAQMD, 1993); and (5) limit traffic speeds on unpaved roads to 15 mph or less. The emission benefits of this mitigation measure are estimated to be 40 to 70 percent (SCAQMD, 1993). With the exception of watering the site three times, these control efficiencies were reflected in the project emission calculations so no further emission reduction credit has been taken into account herein.
- AQ-14 Ultramar shall investigate measures to reduce the VOC emissions associated with the use of paints for coating the new storage tanks. Ultramar shall require that the painting of storage tanks be completed prior to delivery to the site to minimize the amount of paint used at the site. Under this mitigation measure paint use is expected to be limited to about 10 gallons per day. Ultramar shall also investigate the use of paints with VOC contents less than 3.5 lbs/gallon.

Mitigation Monitoring (MM) and Reporting

**Implementing Party:** The SCAQMD finds that the air quality mitigation measures during construction will be implemented by Ultramar.

**Monitoring Agency:** The SCAQMD through its discretionary authority to issue and enforce permits for this project will ensure compliance with these mitigation measures. Monitoring will be accomplished as follows:

MMA-1 Ultramar shall develop and submit a Construction Emission Management Plan to the SCAQMD for approval. The Construction Traffic Emissions Management Plan shall include the following: description of construction traffic control methods such as flag persons, contractor entry/exit gates, etc.; construction schedule including hours of operation; description of truck routing; and description of deliveries, including hours of delivery.

The plan shall be submitted to the SCAQMD prior to beginning construction activities. Upon approval, Ultramar shall certify that all personnel subject to the requirements set forth in the construction traffic emission management plan comply with the requirements of the plan. The SCAQMD may conduct routine inspections of the site to verify compliance.

MMA-2 Ultramar shall instruct individuals that accept delivery of materials of the requirement to limit truck idling to no longer than 10 minutes. The Ultramar employees will evaluate the expected delivery time and if the delivery is expected to take longer than 10 minutes, the truck's operator will be asked to shut off the engine.

MMA-3 Ultramar shall evaluate the use of electricity and alternate fuels for on-site mobile construction equipment prior to the commencement of construction activities. The type of equipment that will use electricity or alternate fuels will be included in the Construction Emission Management Plan.

MMA-4 Ultramar shall maintain or cause to be maintained maintenance records for the construction equipment. All construction vehicles must be maintained in compliance with the manufacturer's recommended maintenance schedule.

MMA-5 The use of gas or diesel welders shall be prohibited in areas of the Refinery that have access to electricity. Construction areas within the Refinery where electricity is not available will be identified on a site plan as part of the Construction Emission Management Plan. The use of gas or diesel welders within these identified areas will be allowed. The use of gas or diesel welders outside of these identified areas shall be prohibited. Ultramar shall include in all construction contracts the requirement that diesel welders are prohibited in

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certain portions of the Refinery as identified on the site plan. Ultramar shall maintain records on where the diesel welders are actually used.

- MMA-6 The use of temporary power generators shall be prohibited in areas of the Refinery that have access to electricity. Construction areas within the Refinery where electricity is not available will be identified on a site plan as part of the Construction Emission Management Plan. The use of temporary power generators within these identified areas will be allowed. The use of temporary power generators outside of these identified areas shall be prohibited. Ultramar shall include in all construction contracts the requirement that the use of temporary power generators is prohibited in certain portions of the Refinery as identified on the site plan. Ultramar shall maintain records on where the generators are actually used.
- MMA-7 Ultramar shall supply the SCAQMD with a report prior to commencement of construction activities that documents Ultramar's evaluation of the availability of retrofit technologies for large construction equipment. A copy of this report shall be maintained on-site along with other recordkeeping required by this Mitigation Monitoring Plan.
- MMA-8 Ultramar shall supply the SCAQMD with a report prior to commencement of construction activities that documents Ultramar's evaluation of the availability of PuriNOx for large construction equipment. The report will identify if PuriNOx is commercially available and, if so, identify equipment that it will be used in and any equipment that it will not be used in (i.e., equipment with engines that the warrantee would be void if PuriNOx was used). A copy of this report shall be maintained on-site along with other recordkeeping required by this Mitigation Monitoring Plan.
- MMA-9 Ultramar shall supply the SCAQMD with a report prior to commencement of construction activities that documents Ultramar's evaluation of the availability low sulfur diesel fuel. A copy of this report shall be maintained on-site along with other recordkeeping required by this Mitigation Monitoring Plan.
- MMA-10 Ultramar shall review the construction equipment with its contractor. A report shall be developed that lists the off-road heavy-duty construction equipment that is expected to be use, identifies the equipment that requires CARB certification and demonstrates that the certified equipment will be used.
- MMA-11 Ultramar shall maintain a log that contains the days when first stage smog alerts occur and the time that construction activities were suspended.

- MMA-12 Ultramar shall review the construction equipment that is expected to be used with its contractor. Appropriate equipment shall be selected that minimizes the engine size of the equipment. Ultramar shall maintain a list of the heavy-duty construction equipment that is used on-site and the applicable engine size.
- MMA-13 Ultramar shall develop and submit to the SCAQMD for approval a fugitive dust emission control plan prior to beginning construction activities. The plan must include a log that tracks the site watering activities and identifies the time and day when winds exceed 25 mph. The log must include the day, time, and location of the active construction sites and unpaved roads that were covered or watered. Watering of active construction sites will be completed three times a day. However, construction sites will not be watered during periods of rainfall. Signs that post a maximum speed limit of 15 mph shall be placed between the truck entrance to the Refinery and the equipment staging areas.
- MMA-14 Ultramar shall review the use of coating materials required to protect the new storage tanks. The VOC content of coatings used for the proposed project will be evaluated and, coatings with a VOC content of less than 3.5 lbs/gallon will be used, if the coatings are available and equally effective. Ultramar shall coordinate the painting of storage tanks so that storage tanks are painted, to the maximum extent feasible, prior to delivery to the site to minimize the amount of paint used at the site. Ultramar shall maintain records on the amount of paint actually used at the site.

### **Air Quality Operational Phase Impacts**

Operation emissions of VOCs, NO<sub>x</sub>, SO<sub>x</sub>, and PM<sub>10</sub> from indirect (mobile) sources, are expected to exceed the SCAQMD significance thresholds and be significant.

### **Air Quality Operational Phase Mitigation Measures**

No feasible mitigation measures were identified that would minimize or eliminate VOC emissions from fugitive components (e.g., valves, flanges, and pumps). VOC emissions from fugitive components are controlled through the use of BACT. BACT by definition, is control equipment with the lowest achievable emission rate. The use of BACT controls emissions to the greatest extent feasible. In addition, the fugitive components will be required to be included in an inspection and maintenance program consistent with current district rules. The use of BACT and the inspection and maintenance program will be enforced through SCAQMD permit conditions.

The majority of the NO<sub>x</sub>, SO<sub>x</sub>, and PM<sub>10</sub> emissions from the proposed project are from indirect emission sources, including trucks, railcars and marine vessels, used to transport

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gasoline blending components and ethanol. The emissions from trucks, railcars and marine vessels are expected to be significant. Since railcars and marine vessels are large contributors to significant air quality impacts, the SCAQMD evaluated whether or not it had jurisdictional authority to regulate these emissions through mitigation measures pursuant to CEQA.

CEQA Guidelines §15040(b) states, "CEQA does not grant an agency new powers independent of the powers granted to the agency by other laws." Due to state and federal regulations, the SCAQMD has no authority to directly regulate emissions from marine vessels or locomotive engines. As a result, the SCAQMD has extremely limited authority to indirectly control emissions from these sources. Neither the SCAQMD nor Ultramar own and control off road marine or locomotive sources, the SCAQMD cannot require these sources be retrofitted or their engines replaced.

The Mobil Final EIR (SCAQMD, 1998) concluded that the SCAQMD must act within the constraints of the admiralty clause, and the supremacy clause of the United States Constitution. Under the supremacy clause, the SCAQMD could be prohibited from regulating ship emissions, if Congress has explicitly or implicitly foreclosed the regulation of ship emissions. As explained in the Mobil Final EIR, the Ports and Waterways Safety Act ("PWSA") preempts the SCAQMD from regulating engine design, construction and operation of machinery to the extent that such regulation would interfere with vessel safety or protecting the marine environment. Similarly, on September 26, 1997, the United States approved Annex VI to MARPOL 73/78 regarding NO<sub>x</sub> emissions from marine diesel engines (Mobil Revised Draft EIR, Volume VII, p. 30). Under the admiralty clause, the SCAQMD is prohibited from adopting and enforcing regulations, which interfere with the proper harmony and uniformity of maritime law.

The Clean Air Act does not preempt "in-use" mitigation measures. However, in-use measures do not mitigate air quality impacts or are infeasible since, as previously evaluated in the Mobil Draft EIR (SCAQMD, 1998) they have a tendency to increase emissions. The following "in-use" measures were considered and found to be infeasible or found to be ineffective as mitigation: using steamships in place of diesel ships; retrofitting ships with air pollution control technologies; limiting the hours of use or the number of engines used on marine vessels; using on-shore electricity during hotelling operations; prohibiting ship visits during first or second stage smog alerts; imposing fuel specifications; retarding the injection of fuel in diesel engines; offsetting ship emissions; reducing ship speeds; requiring ships to travel further off-shore; increasing the amount of material delivered per trip; obtaining local sources of oxygenates; and using other oxygenates. It was determined that imposing these types of mitigation measures would not be expected to be effective in reducing emissions in the Basin since they would only apply to one company. Other companies would be able to transport the materials into the Basin without any such restrictions. Therefore, no real emission benefits would be expected.

There are some local marine vessels that have been voluntarily repowered. The SCAQMD has developed a protocol for obtaining NO<sub>x</sub> credits for repowering or retrofitting marine vessels (Rule 1631 – Pilot Credit Generation Program for Marine Vessels). Marine retrofit or repowering projects, however, are all voluntary projects to generate NO<sub>x</sub> credits applicable to the RECLAIM program. Based on exhaustive research conducted by the SCAQMD as part of the Mobil CARB Phase 2 reformulated gasoline EIR (SCAQMD, 1998), the SCAQMD does not have authority to directly regulate marine vessel emissions and the SCAQMD cannot require retrofitting, repowering or controlling emissions from marine vessels unrelated to stationary source equipment.

The U.S. EPA has established emission standards for NO<sub>x</sub>, VOCs, CO, particulate matter, and smoke for newly manufactured and remanufactured diesel-powered locomotives and locomotive engines which have been previously unregulated. Three separate sets of emission standards have been adopted, with applicability of the standards dependent on the date a locomotive is first manufactured. The first set of standards (Tier 0) apply to locomotives and locomotive engines manufactured from 1973 through 2001. The second set of standards (Tier 1) applies to locomotives and locomotive engines manufactured from 2002 through 2004. The final set of standards (Tier 2) apply to locomotives and locomotive engines manufactured in 2005 and later (U.S. EPA, 1997). With the new national emission standards for both newly manufactured and remanufactured locomotives originally built after 1972, future locomotive emission rates are projected to be much lower than the current emission rates. The U.S. EPA estimates that the NO<sub>x</sub> emissions will be reduced by about 62 percent from their current levels for locomotives manufactured after 2004 (U.S. EPA, 1997). The actual emission reductions are a function of the date that new locomotives come into service and are used to transport materials to/from the terminals. Since the date at which this conversion actually happens is uncertain and not guaranteed, the NO<sub>x</sub> emissions from project-related railcars are expected to remain significant. These regulations preempt state and local authorities from establishing emission standards for new or rebuilt engines.

Emissions from trucks are regulated by the U.S. EPA and the CARB. The SCAQMD has limited authority over truck emissions. The U.S. EPA and the CARB have implemented regulations to control on-road diesel engines and emission benefits associated with these regulations are expected as these regulations come into effect.

Based on the above there are no other feasible mitigation measures to minimize or eliminate the significant emissions from mobile sources related to the proposed project. No monitoring activities are required for air quality impacts related to the operational phase of the proposed project since no feasible mitigation measures were identified.

### **Mitigation Monitoring and Reporting**

No feasible mitigation measures were identified to minimize or eliminate the significant emissions from mobile sources related to the proposed project. BACT will be required

for stationary source equipment, which by definition, is the lowest achievable emission rate. Therefore, no monitoring activities are required for air quality impacts related to the operational phase of the proposed project.

## **HAZARD IMPACTS**

### **Hazard Impacts**

The proposed project could result in significant adverse impacts related to the “worst-case” hazards associated with modifications to the Naphtha Hydrotreater, the Light Ends Recovery Unit No. 2, and the proposed new propane/propylene storage bullets. A rupture of the line leaving the debutanizer in the Naphtha Hydrotreater could allow the 30 ppm concentration level for hydrogen sulfide (ERPG2 level) to extend an additional 165 feet, resulting in potentially significant impacts. A rupture in the sour gas line leaving the debutanizer in the Light Ends Recovery Unit also could allow the 30 ppm concentration level for hydrogen sulfide to extend an additional 300 feet, resulting in potentially significant impacts. Finally, the new propane/propylene storage tanks could result in a boiling liquid expanding vapor explosion (BLEVE) would could extend an additional 355 feet, resulting in potentially significant adverse hazard impacts.

The proposed project could also result in potentially significant adverse impacts related to the “worst-case” hazards associated with modifications to storage tanks at the Olympic Tank Farm. The changes to several of the storage tanks have the potential to generate thermal radiation hazards that could extend off-site (a maximum of about 60 feet). Few individuals are expected to be exposed since the hazard zone would only extend to adjacent industrial areas. However, the potential for off-site impacts could result in an exposure to fire radiation; therefore, the proposed project has the potential for significant adverse hazard impacts.

### **Hazard Impacts Mitigation Measures**

There are a number of rules and regulations that Ultramar has been or must comply with that serve to minimize the potential impacts associated with hazards at the facility. Under federal OSHA, regulations have been promulgated that require the preparation and implementation of a Process Safety Management (PSM) Program (29 CFR Part 1910, Section 119, and Title 8 of the California Code of Regulations, Section 5189). Risk Management Plans (RMPs) are covered under the California Health and Safety Code Section 25534 and 40 CFR Part 68, and Title 1 §112(r)(7), by the Clean Air Act.

A PSM that meets the requirements of the regulations and is appropriately implemented is intended to prevent or minimize the consequences of a release involving a toxic, reactive, flammable, or explosive chemical. A PSM review is required as part of the

proposed project. Ultramar is responsible for preparing the PSM review and OSHA has inspection authority under the PSM requirements.

An RMP is required for certain chemicals at the Refinery. The RMP consists of four main parts: hazard assessment that includes an off-site consequence analysis, five-year accident history, prevention program, and emergency response program. The Refinery's existing RMP will need to be reviewed and revised to include the proposed project modifications, including the modifications to the Naphtha Hydrotreater, the Light Ends Recovery Unit No. 2, and the proposed new propane/propylene storage bullets. The revised RMP will be submitted to the Los Angeles City Fire Department for review and approval.

### **Mitigation Monitoring and Reporting**

No additional feasible mitigation measures have been identified, over and above the extensive safety regulations that currently apply to the Refinery. Therefore, no further monitoring measures are required.

## **VI. CONCLUSION**

Ultramar will be required to submit quarterly reports to the SCAQMD during the construction phase that identifies the construction progress, includes all required logs, inspection reports, and monitoring reports, identifies any problems, and provides solutions to problems, as necessary. The SCAQMD and Ultramar will evaluate the effectiveness of this monitoring program during both the construction period and operation. If either the monitoring program or the mitigation measures as set forth above are deemed inadequate, the SCAQMD or another responsible agency may require Ultramar to employ additional or modified monitoring measures and/or measures to effectively mitigate identified significant adverse impacts to the levels identified in the EIR.